Economic and Demographic Development: The Importance of Life Expectancy and the Demographic Transition

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Preface

Economic development throughout human history is characterized by a long era of stagnation and a sudden transition to sustained growth that occurred only recently over the last two centuries (see Galor, 2011). A crucial demographic event that enabled countries to enter a sustained economic growth regime is the so-called demographic transition. Being "one of the best-documented generalizations in social sciences" (Kirk, 1996, p. 361), the demographic transition is characterized by a decline from high mortality to low levels followed by a delayed, analogous decline in fertility. The delay between these two declines temporarily increases population growth which slows down once fertility rates remain at low levels. In this way, population growth no longer has an offsetting effect on income per capita, which can sustainably grow in the long run.

One key trigger of the demographic transition identified by the literature is the emergence of the demand for skilled human capital created by technological progress along the development path. The formation of human capital can be positively influenced by other factors such as the unprecedented rise in life expectancy over the last two centuries. The rise in life expectancy not just entails a healthier, more productive life for each individual but also implies a favorable effect on educational choices since the life span to enjoy the expected returns to time-intensive education is prolonged (see Ben-Porath, 1967). Hence, health gains are an important determinant for economic development and exemplarily show the interrelation between economic and demographic dynamics.

This dissertation aims to expand our understanding of the interdependence between economic and demographic developments as well as their consequences. Specifically, this thesis demonstrates the crucial role of both the timing of the demographic transition and the timing of opening to trade for trade flows and the long-run development trajectory of trading economies. Further, it establishes a causal link between the population structure in terms of a relatively larger labor force on the process of industrialization in the historical context of Prussia. In the following, the dissertation revisits the role of life expectancy for economic growth by creating a unique historical data set of mortality rates from infectious diseases. This research documents no causal relationship between population growth induced by medical improvements during the international epidemiological transition and conflicts due to differential trends regarding the demographic transition. The analysis of the dissertation is based on a variety of empirical approaches with the results being rationalized with a theoretical model or being drawn from (new digitized) historical data. Thereby, each chapter sheds light on novel aspects of the interrelation between economic and demographic development.

The importance of variation in the timing of the demographic transition in a globalized world is examined in Chapter 1 “Demography and Globalization – Long-Run Development from a Global Perspective”, which is joint work with Gerrit Meyerheim and Uwe Sunde. Starting from the observation that existing work on development has either emphasized the role of demographic development along the development trajectory of a single economy or focused on the role of globalization in the context of contemporaneous, cross-sectional patterns of comparative development, the chapter combines these views by considering the process of long-run development from a global perspective. In a first step, extended versions of the gravity equation that account for demographic development are estimated. The analysis is based on the hypothesis that differences in demographic development between economies due to differences in the timing of the demographic transition affect patterns of comparative advantage, and hence trade volumes. The empirical results reveal that trade volumes are affected significantly by demographic development, both in terms of the level of demographic development and in the relative distance in demographic development. To rationalize this finding, a long-run growth model that allows for international trade in a two-economy, two-sector framework with two differentiated goods varying in the skill intensity of production is developed. The long-run growth model studied is based on the prototype unified growth model of Cervellati and Sunde (2015b) extended to two economies and two sectors. The two economies are identical except for structural parameters that determine the timing of the demographic transition and thus the economic take-off. The model analysis illustrates that the development dynamics crucially depend on whether the opening takes place before or after the demographic transition. The reason is that due to differential demographic developments, the comparative advantage of the two economies varies over time. Hence, the static and dynamic gains from globalization depend on whether trade integration occurs in an early or late stage of demographic development. In the end, a quantitative version of the model generates simulated data that are used to estimate the same demography-extended gravity equations as with actual data. The estimations results are consistent with the observed empirical patterns and thereby provide empirical relevance to the theoretical predictions about the importance of demographic development for trade volumes.

Another development that is directly associated with the transition to sustained economic growth, apart from the demographic transition, is the process of industrialization, which represents the most fundamental change in Western economies' production structure. This process was also accompanied by high population growth, which may even have favored industrialization by providing a larger supply of working-age labor needed to implement and establish the new industrial sector. In light of this hypothesis, Chapter 2 "Industrialization and Demography – Evidence from Prussia" analyzes the impact of population structure on the process of industrialization in the historical context of Prussia. Using a micro-regional panel data set of 323 Prussian counties in the 19th century, the effect of the young dependency ratio, which captures the relative size of the potential labor force, on industrialization in Prussia is empirically analyzed. Variations in the pre-industrial young dependency ratio created by the Napoleonic war and the exposure of agricultural food supply to weather conditions allow using the young dependency ratio in 1816 as an instrumental variable for the young dependency ratios during the two phases of the industrialization process. The identification strategy exploits the variation in the young dependency ratio before the Industrial Revolution and thereby is not simultaneously affected by the industrialization process. Thus, the instrumental variable strategy estimates the causal effect of the young dependency ratio on industrialization in Prussia. The main finding is that a smaller young dependency ratio significantly increases the industrial employment share. The result is robust to a set of potentially confounding factors and is confirmed by panel estimates with county and period fixed effects. Moreover, the cross-sectional analysis highlights sector-specific characteristics, such as labor and human capital demand, that must be taken into account when making statements about the importance of the population structure and education in the process of industrialization. Finally, the chapter suggests that a lower young dependency ratio in a pre-demographic transition environment is driven by a relatively larger increase in life expectancy at working ages rather than a fertility decline.

The general question of how life expectancy affects economic growth has been examined in a seminal study by Acemoglu and Johnson (2007). Exploiting exogenous changes in health conditions in the context of the international epidemiological transition during the 1940s, the authors introduce a novel instrumental variable that has been widely applied in the literature, the so-called "predicted mortality instrument". Instrumenting changes in life expectancy at birth by initial mortality rates of infectious diseases before the medical innovations in the first stage, Acemoglu and Johnson (2007) find a significant and positive second-stage effect of life expectancy at birth on population growth and the total number of births, while they identify a significant and negative effect on GDP per capita. The third chapter "Disease and Development – The Predicted Mortality Instrument Revisited", which is joint work with David Kreitmeir, re-investigates the findings of Acemoglu and Johnson (2007). For this purpose, a new data set on historical mortality rates from infectious diseases which refines and supplements the original data of Acemoglu and Johnson (2007) is created. The data set corrects for errors in the original digitization process, extends the coverage of diseases by country from various historical sources, and distinguishes between country- and town-level mortality rates. Accounting for observed differences in the rates and the relative importance of diseases across these two levels, four refined predicted mortality instruments, which differentiate themselves concerning the assumptions placed upon them, are constructed. Irrespective of the refined predicted mortality instrument, a significant and positive second-stage effect of life expectancy at birth on population growth and total births can be found, while no significant effect on total GDP is detected. Three of four refined instruments can replicate the negative and significant effect on GDP per capita. However, the effect turns insignificant if the construction of the predicted mortality instrument exclusively relies on country-level mortality rates. More importantly, the original instrument of Acemoglu and Johnson (2007) and the three refined instruments drawing on town-level mortality rates are significantly related to a pre-existing trend in life expectancy in the decade before the epidemiological transition. Therefore, the chapter suggests that future work should rely on the country-level predicted mortality rate instrument.

Based on the unique historical data set introduced in Chapter 3, the empirical results in Acemoglu *et al.* (2020) are re-examined in Chapter 4 "Population and Conflict Revisited", which is joint work with David Kreitmeir. Using the original predicted mortality instrument introduced by Acemoglu and Johnson (2007), Acemoglu *et al.* (2020) find that population growth in the wake of the international epidemiological transition has significantly contributed to more violent conflicts over the period 1940-1980. When applying the four refined predicted mortality instruments in their empirical framework, there is a substantial decline in the instrument relevance compared to the original instrument, except for using town-level instead of country-level mortality rates in the construction process. To explain the sensitivity of results to different instrument definitions, the hypothesis is tested that the impact of medical advances during the epidemiological transition on population growth depends on the completion of the demographic transition by 1940. The hypothesis is rooted in the pattern of the demographic transition which implies heterogeneous dynamics in population growth due to the delayed reduction of high fertility to low levels. Irrespective of the construction of the instrument, the estimation results show either no monotonicity or no explanatory power of the predicted mortality instrument in the first stage due to heterogeneous demographic environments. The findings reveal that previous results of Acemoglu *et al.* (2020) are confounded by the omission of differential time trends related to the completion of the demographic transition that existed before the international epidemiological transition. In total, population growth posses no longer a causal impact on conflict once accounting for the influence of the demographic transition.

The four chapters in the thesis are self-contained. Nevertheless, it is recommended to read the last two chapters in the right order if a detailed understanding of the underlying data set in Chapter 4 is desired by the reader. A consolidated bibliography and each chapter's appendix are contained at the end of the thesis.

Chapter 1

Demography and Globalization – Long-Run Development from a Global Perspective[1]

1.1 Introduction

Over the past two centuries, the Western world experienced an economic transition from quasi-stagnation to sustained economic growth. With delayed development in other parts of the world, this marked the beginning of the great divergence in living conditions across the globe. Despite an increasingly integrated global economy, expanding trade, and increasing specialization, differences in development persist until today, and the academic discussion about the question of whether there will ever be global convergence in living conditions continues. At the same time, increasing concerns about the implications of globalization for national development and global inequality have intensified the debate about adequate globalization policies.

Much of the literature on comparative development has focused on the role of trade and globalization. While this literature has shed light on the determinants of trade and their

[1]This chapter is joint work with Gerrit Meyerheim and Uwe Sunde.

interplay with growth, the reasons for the patterns of comparative development and the role of different facets of globalization are not fully understood. Most analyses start from the perspective of persistent differences in development without considering the long-run development dynamics and, in particular, the transition from stagnation to sustained growth that occurred in most countries over the past two centuries. In contrast, existing work on long-run development has mostly focused on the mechanisms along the development path of a single "island" economy, emphasizing the role of the demographic transition and the expansion in education for the transition from stagnation to growth. Systematic investigations of the interplay between global integration and long-run growth, and of the corresponding implications for policy options to close the gap in economic development around the world, are still missing.

This paper contributes by considering the process of long-run development from a global perspective. We begin our analysis by estimating extended versions of the gravity equation that account for demographic development. This analysis is based on the hypothesis that differences in demographic development between economies affect patterns of comparative advantage, and thus trade volumes. According to recent contributions to the long-run growth literature, comparative development differences reflect delays in the timing of the demographic transition, further supporting the conjecture. The results document that trade volumes are indeed affected significantly by the demographic development of the trading economies, both in terms of the level of demographic development and in the relative distance in demographic development.

To rationalize this novel finding, we develop a prototype model that combines the long-run perspective of a non-linear development process with a multi-country perspective. This allows integrating the role of globalization in the form of international trade links with the mechanisms of demographic and economic development that have been the focus of long-run growth theories. By illustrating the implications of trade, and by documenting the conditionality of the implications of globalization on demographic development, as well as the mutual interdependencies and feedbacks, the results shed new light on the drivers of comparative development differences.

The global version of a prototype long-run growth model considers a two-economy, two-sector model with two differentiated goods whose production differs in the intensity of use of unskilled labor and skilled labor. In autarky, the development process exhibits a long phase of quasi-stagnant development that is characterized by a largely unskilled population. This phase is eventually followed by the demographic transition, which is the result of increased demand for human capital and reduced opportunity costs of education due to better health. The consequence is an acceleration of economic development and the convergence to a balanced growth path.

The global version of the model consists of two economies that differ with respect to structural parameters that determine the timing of the demographic transition and hence the economic take-off, but that are identical otherwise. Concretely, this difference in timing is due to country-specific differences in the extrinsic mortality environments, which reflect, e.g., geographical or climatic conditions that govern the exposure to infectious diseases, following the previous literature. We then analyze the consequences of exogenous opening to trade between the two economies – the forerunner economy and the latecomer economy – at different points in time to investigate the effects of globalization.

The model analysis illustrates the interplay of demographic development and the opening to trade and rationalizes why the effects of globalization systematically depend on the absolute and relative levels of demographic development of the trading economies. The development dynamics are also shown to critically depend on whether the opening takes place before or after the demographic transition. The results disentangle short-run effects of globalization from the long-run effects that materialize along the future development path. As long as the opening occurs before the onset of the demographic transition in the forerunner economy, the forerunner economy has a comparative advantage in the production of the good that uses unskilled labor relatively more intensively. An early opening to trade , therefore, implies that the forerunner economy specializes according to this comparative advantage. In contrast, a late opening to trade implies a comparative advantage in the skill-intensive good. As consequence, the forerunner economy exhibits relatively less skilled individuals, a larger population, and lower income per capita under the early opening compared to the late opening. This holds despite the unambiguously positive static gains from trade that accrue immediately after the early opening. Opposite effects hold for the latecomer economy. Relative to autarky, a later opening leads to lower levels of education and income per capita due to the specialization in low skill-intensive goods and the absence of a positive demand effect for skilled labor. In addition, the static gains from trade lead to a faster population increase, implying that the positive short-run gains from trade are accompanied by detrimental effects on the development of income per capita in the long run.

The main conceptual insight of this analysis is that the demographic transition constitutes a crucial turning point for the development dynamics not only for economies in autarky but also when considering a global perspective. The consequences of global trade integration critically depend on whether the integration occurs in the early stages of the demographic transition, which determines the scope for trade. Through the interaction of trade with population dynamics and human capital acquisition, the static and dynamic gains from globalization depend on absolute and relative demographic development. As consequence, globalization can lead to a decrease or an increase in the inequality between forerunner and latecomer economies.

We end by documenting the consistency of a quantitative version of the model with the empirical patterns. In particular, we show that estimating the same demography-augmented gravity equation on simulated data as on the actual data delivers very similar estimation results, thereby providing evidence for the empirical relevance of the theoretical predictions about the importance of demographic development for trade volumes.

The results of this paper contribute to different strands of the literature. By documenting that demographic development affects international trade in estimates of an extended version of the gravity equation, our paper contributes a new aspect to the empirical trade literature (e.g., Anderson and van Wincoop, 2003; Silva and Tenreyro, 2006). Our results indicate a potentially important yet largely overlooked mechanism that is related to the non-linear dynamics of demographic development. In this respect, our focus on trade also complements a literature that has focused on the implications of differences in demographic development for international capital flows (see, e.g. Börsch-Supan *et al.*, 2006; Domeij and Floden, 2006; Auclert *et al.*, 2021).

The set-up of a multi-country long-run growth model extends the literature on endogenous growth with international interactions (see, e.g. Barro and Sala-i Martin, 1997; Howitt, 2000; Baldwin *et al.*, 2001; Howitt and Mayer-Foulkes, 2005; Lucas, 2009; Strulik, 2014), and on unified growth theories focusing on a single economy (see, e.g. Galor and Weil, 2000; Galor and Moav, 2002; Galor, 2005, 2011; Cervellati and Sunde, 2005, 2015b). While the former strand of the literature focuses almost exclusively on either trade or technology diffusion, this literature does not account for the transition from stagnation to growth in the forerunner economy, as does the latter strand of the literature.

Our paper contributes to the small literature on long-run development with a focus on global interactions. The seminal paper in this literature by Galor and Mountford (2008) investigates the effects of trade on fertility and education and the heterogeneity in these effects for forerunner and latecomer economies. In contrast, our analysis investigates the implications of demography and the demographic transition for trade and trade patterns. We also investigate the feedback from trade for demographic and economic development. Our model provides a richer perspective of the implications of trade for comparative development patterns by documenting the changing dynamics of comparative advantage along the process of demographic development, and by allowing for reversals in comparative advantage. In addition, the analysis of a quantitative model illustrates the importance of the timing of opening conditional on demographic development for the consequences of globalization. Most importantly, the quantitative model delivers estimation patterns that are directly comparable to the patterns from empirical gravity models extended to demographic development. Moreover, model extensions also incorporate the global diffusion of technology and health. This also relates to recent work by O'Rourke *et al.* (2019) that focuses on endogenous technological change and intercontinental trade and shows that the co-evolution of trade and technological change can create a delayed divergence in demographics and living standards. Technology diffusion can mitigate and even reverse this divergence. Our analysis complements theirs by investigating the consequences of the timing of global integration in trade.

The remainder of the paper is structured as follows. Section 1.2 presents empirical evidence for the role of demography for trade patterns. Section 1.3 presents the two-economy model, Section 1.4 contains the main results and testable implications, Section 1.5 documents the consistency of the model with the empirical patterns, and Section 1.6 concludes.

1.2 The Role of Demography for Trade

We begin our analysis by combining two central insights from the existing literature. The first insight is that in empirical applications trade between economies is typically represented by a gravity equation that models bilateral trade volumes as a function of the size of the economies and trade costs. Higher trade costs, reflected in geographical distance, policy, or structural resistance measures, tend to reduce trade, whereas size tends to increase trade, with bilateral trade flows being larger the more similar in size the two trading economies are (see, e.g. Yotov *et al.*, 2016). The second insight is that trade relies on comparative advantage. This implies that the scope for trade should be larger between economies that specialize in the production of different goods or commodities than between economies with the same specialization. One factor contributing to the specialization patterns, and hence to the scope for trade, is demography and demographic development. According to the long-run growth literature, demographic development is not monotonic. Instead, the demographic transition, reflected by a reversal in the income-fertility nexus and the onset of an education expansion that occurs in combination with this reversal and the associated decline in fertility, is the critical turning point for economic development and the transition from stagnation to growth. Hence, from the perspective of long-run growth dynamics, comparative development differences reflect different levels of demographic development. These differences are related to delays in the timing of the demographic transition and are associated with differences in sector composition and production intensity of different goods (see, e.g. Cervellati and Sunde, 2015b). Taken together, these two insights give rise to the conjecture that differences in demographic development between economies might affect patterns of comparative advantage, and thus trade volumes. Distinctly from the prediction that trade increases in the size of the two trading economies, this conjecture emphasizes the differences in the level of development.

To investigate the empirical relevance of this conjecture, we estimate augmented versions of standard empirical gravity models (e.g., Anderson and van Wincoop, 2003; Silva and Tenreyro, 2006; Yotov *et al.*, 2016), using data and estimation methodologies used in the seminal study by Silva and Tenreyro (2006). The estimation model is based on a fixed-effects specification with standard controls.[2] The estimation is based on Ordinary Least Squares (OLS) and Poisson Pseudo Maximum Likelihood (PPML). Importantly, the fixed effects specification allows testing the predictions based on variation in the timing of the demographic transition conditional on cross-country heterogeneity in other dimensions usually considered in the estimation of gravity equations. The predictions should hold above and beyond any effects of heterogeneity in other dimensions that might exist between two economies and that might affect trade volumes, such as size or trade costs.

To test the hypothesis, we extend the standard empirical specification by a measure of the time difference between the demographic transitions in the trading economies and information about whether the economies of a dyadic observation have undergone the demographic transition. The time difference between the demographic transitions in the trading economies is measured by the time difference between the onset of the demographic transition in the two economies. As a proxy for the timing of the demographic transition, we use information about the year of the fertility transition that is available for 144 countries from the data compiled by Reher (2004).

[2] In the Appendix, we present alternative specifications with extended sets of controls.

Table 1.1: *Estimates of Demography-Extended Gravity Equations - Baseline*

	(1) OLS $\ln(EX_{ij})$	(2) OLS $\ln(1+EX_{ij})$	(3) PPML $EX_{ij}>0$	(4) PPML EX_{ij}
Log Time Diff. DT	0.116***	0.159***	0.080***	0.095***
	(0.023)	(0.020)	(0.015)	(0.016)
Fixed Effects	✓	✓	✓	✓
Controls	✓	✓	✓	✓
Observations	6,835	13,110	6,835	13,110
R^2	0.754	0.773	0.951	0.952

Notes: Results from estimations of gravity equations by Ordinary Least Squares (OLS) and Poisson Pseudo Maximum Likelihood (PPML). The dependent variable is (the log of) bilateral export flows in 1990. Empirical specifications are as in Anderson and van Wincoop (2003), extended for the log time difference in the timing of the demographic transition ("Log Time Diff. DT"). All specifications include a full set of country (importer and exporter) fixed effects and controls for log distance, contiguity dummy, common-language dummy, a dummy for colonial ties, and a free-trade agreement dummy. Estimation results for replication of the conventional specification of the gravity equation are contained in Appendix Table A.1. The full set of estimation results are contained in Appendix Table A.2. Data sources: Silva and Tenreyro (2006) and Reher (2004). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 1.1 presents the estimation results of a standard gravity equation that replicates the specification by Anderson and van Wincoop (2003). The only extension to the specification is the inclusion of a variable that measures the log of the absolute value of the difference in the timing of the onset of the demographic transitions in the two trading economies.[3] The results reveal that the distance in the timing of the demographic transition in the two trading economies has a significant positive effect on the trading volumes, conditional on the full specification of regressors of a traditional gravity equation and regardless of the estimation method (OLS or PPML). The same also holds considering only variation in trade along the intensive margin or when also accounting for dyads with no trade. While the results for the usual controls are similar to previous estimates with the conventional specification, the time difference between the demographic transitions enters the standard gravity equation

[3] In the empirical specification, we use the natural log of 1 plus the absolute value of the time difference as a measure since some economies in a trading relationship exhibit the onset of the fertility transition in the same year.

positively and highly significantly. The longer the time difference, the larger the trade volumes between economies, *ceteris paribus*, with estimated elasticities of trade volumes with respect to the time difference being 0.12 and 0.16 for OLS estimates as well as 0.08 and 0.10 for PPML.[4]

Table 1.2: *Estimates of Demography-Extended Gravity Equations - Extension*

	(1) PPML EX_{ij}	(2) PPML EX_{ij}	(3) PPML EX_{ij}	(4) PPML EX_{ij}	(5) PPML EX_{ij}
Log Time Diff. DT	0.095***		0.094***		0.094***
	(0.016)		(0.016)		(0.016)
Post-Pre Relation		1.264***	1.106***	6.636***	6.364***
		(0.208)	(0.210)	(0.647)	(0.646)
Post-Post Relation				10.744***	10.516***
				(1.088)	(1.083)
Fixed Effects	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓
Observations	13,110	13,110	13,110	13,110	13,110
R^2	0.952	0.952	0.952	0.952	0.952

Notes: Results from estimations of gravity equations by Poisson Pseudo Maximum Likelihood (PPML). The dependent variable is bilateral export flows in 1990. Empirical specifications of the gravity equation are as in Anderson and van Wincoop (2003), extended for the log time difference in the timing of the demographic transition ("Log Time Diff. DT") and dummies for a dyadic constellation of a post-transitional and a pre-transitional country ("Post-Pre Relation") or a post-transitional and a post-transitional country ("Post-Post Relation"). All specifications include a full set of country (importer and exporter) fixed effects and controls for log distance, contiguity dummy, common-language dummy, a dummy for colonial ties, and a free-trade agreement dummy. The full set of estimation results are contained in Appendix Table A.3. Data sources: Silva and Tenreyro (2006) and Reher (2004). Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

To further investigate whether the difference in demographic development affects the scope for trade, we estimate extended specifications that explicitly account for the demographic constellation in terms of the demographic development of the two trading economies. The results in Table 1.2 replicate the PPML estimates of Column 4 of Table 1.1 but account explicitly for whether one or both of the economies have undergone the onset of the demographic transition. A trade relationship is classified as post-pre transitional if only one economy has undergone the fertility transition by 1990, which is the year in which

[4]See Appendix Tables A.1 and A.2 for the replication of the estimation with the standard specification and the results for other control variables.

trade volumes are observed in the data of Silva and Tenreyro (2006). If both economies have undergone the demographic transition by 1990, the relationship is classified as post-post transitional. The results confirm the prediction that the scope for trade is higher after the demographic transition. In particular, trade volumes are significantly larger in a post-pre relation, i.e., if one economy has undergone the transition than if none of the economies has undergone the transition, and this effect is amplified if both countries are post-transitional (post-post relations).

These results are robust to the specific empirical model and also hold for alternative specifications of the gravity equations, e.g., following Silva and Tenreyro (2006).[5] Taken together, these findings document that the predicted impact of demographic development on trade is consistent with the empirical evidence. Moreover, they reveal an influence of demography that, to the best of our knowledge, has not been documented previously in the empirical trade literature.

1.3 A Long-Run Growth Model

This section develops a model of long-run growth that can help rationalize the empirical findings of the previous section. The long-run growth model is based on the prototype unified growth model of Cervellati and Sunde (2015b) extended to two economies and two sectors. While we restrict attention to analytical results in this section, the following section analyzes a quantitative version of the model.

1.3.1 Set-Up and Population Structure

We consider a two-economy, two-sector model of long-run growth. The two economies are indexed by i and differ exogenously in terms of their demographic development. In each economy, the two sectors produce a basic and a skill-intensive good, respectively. For concreteness, the two economies can be thought of as representing the global North and the

[5]See Appendix Tables A.4–A.6.

global South, respectively. Variables and parameters without any index i are exogenous, constant, and identical in both economies. The population structure of economy i is given by a discrete number of generations of individuals $t \in \mathbb{N}^+$ in continuous time $\tau \in \mathbb{R}^+$. The life of an individual in generation t is divided into two sub-periods: childhood and adulthood. Childhood lasts for k years. Each child of generation t survives childhood with probability $\pi_{it} \in (0,1)$. Surviving children become adults. Adults have a constant, generation-specific survival probability $s_{it} \in (0,1]$ at each point in time τ. The resulting life expectancy of adults is given by T_{it}. The maximum lifetime of an adult is bounded from above by $\overline{T}$, which is fixed. Reproduction is asexual and occurs k years before $\overline{T}$. There is no overlapping workforce. The size of a cohort of adults is given by $N_{it+1} = \pi_{it} n_{it} N_{it}$, where n_{it} is the average (gross) fertility of the parent cohort. All individuals of generation t are endowed with ability $a \in [0,1]$ from the normal distribution with density function $f(a)$ with mean μ and standard deviation σ. The ability distribution is the same in both economies and creates heterogeneity at the individual level.

1.3.2 Demographic Environment

The demographic environment in economy i is characterized by the mortality of children and adults. In particular, the probability that a child survives until adulthood, π_{it}, depends on average living conditions, in terms of income per capita, y_{it-1}, and the share of skilled individuals, λ_{it-1}, of the parental generation:

$$\pi_{it} = \Pi\left(\lambda_{it-1}, y_{it-1}\right) = 1 - \frac{1 - \underline{\pi}}{1 + \kappa \lambda_{it-1} y_{it-1}}, \tag{1.1}$$

where $\kappa > 0$ and $\underline{\pi} \in (0,1)$ is the baseline child survival probability in the most basic conditions with no parental education, i.e., the baseline probability is observed in an economy with $\lambda_{it-1} = 0$. The functional form captures the fact that better living conditions are conducive to the survival probability of children.

Adults in generation t face an instantaneous mortality risk during their entire life. The corresponding survival probability is given by $s_{it} \in (0,1]$ for each age τ. Hence, the survival probability is constant during adulthood and is the same regardless of the education choice. On the other hand, the survival rate can change across generations. In particular, we assume that the survival probability is increasing in the share of skilled individuals in the parental generation, λ_{it-1},

$$s_{it} = \underline{s}_i + \rho_i \lambda_{it-1}, \tag{1.2}$$

where $\underline{s}_i$ is the baseline survival probability and $\rho_i > 0$ reflects the scope for improvements. The corresponding adult longevity T_{it} is given by

$$T_{it} = T(\lambda_{it-1}) = \int_0^{\overline{T}} e^{-(1-s_{it})\tau} d\tau = -\frac{1}{(1-s_{it})} e^{-(1-s_{it})\overline{T}} + \frac{1}{(1-s_{it})} \tag{1.3}$$

The maximum life span of an adult is bounded from above by $\overline{T}$. The key feature of this specification is that the expected lifetime during adulthood increases endogenously with the share of skilled individuals during the process of development. Thereby, it affects the incentive to acquire human capital through the time constraint. The main results are not sensitive to the specific formulation of the survival law and the maximum length of the life span.

1.3.3 Preferences and Choices

Individuals make no decisions during childhood. At the beginning of adulthood, the individuals that survived childhood make lifetime decisions about consumption, education, and fertility to maximize their lifetime utility. Individuals gain utility from consuming a basic good, c_{it}^b, and a skill-intensive good, c_{it}^s, as well as from the quantity n_{it} and quality q_{it} of surviving children. The utility function is additively separable and given by:

$$U\left(c_{it}^b, c_{it}^s, \pi_{it} n_{it} q_{it}\right) = \gamma^b \int_0^{T_{it}} \ln\ c_{it}^b(\tau)\ d\tau\ + \gamma^s \int_0^{T_{it}} \ln\ c_{it}^s(\tau)\ d\tau\ + \gamma^n\ \ln\left(\pi_{it} n_{it} q_{it}\right) \tag{1.4}$$

The parameters $\gamma^b > 0$ and $\gamma^s > 0$ are the utility weights for consuming the basic good and the skill-intensive good. Parameter $\gamma^n > 0$ is the utility weight for surviving children with quality q_{it}. We abstract from modeling the details of consumption profiles over the life-cycle and set the subjective discount rate to zero, so that individuals perfectly smooth consumption of both goods during adulthood, $c^b_{it}(\tau) = c^b_{it}$ and $c^s_{it}(\tau) = c^s_{it}$ for all τ. As is standard in fertility choice models, individuals cannot perfectly substitute the utility from consumption with utility from their children. The individual with ability a in generation t chooses their consumption level for both goods, their level of education, the number of children n_{it}, and the level of child quality q_{it} by choosing the time invested in raising each child r_{it} in order to maximize lifetime utility subject to two constraints to be explained below.

The education choice is modeled as a choice between acquiring skilled or unskilled human capital. The level of human capital $h^j(a)$ that an individual can acquire during a given period of time is increasing in ability a. The ability of an individual is relatively more important in producing skilled human capital, $h^s(a)$, than unskilled human capital, h^u for $j = \{u, s\}$. Hence, the individuals sort themselves into skilled individuals and unskilled individuals in equilibrium and there is a unique share of skilled individuals λ_{it} in each generation. If an individual with ability a chooses to become skilled, they acquire $h^s(a) = e^{\alpha \cdot a}$ units of human capital and pay a fixed cost, $\underline{e}^s$, measured in terms of adult lifetime. An individual that decides to become unskilled acquires $h^u = e^{\alpha \cdot \mu}$ units of human capital and pays a fixed cost $\underline{e}^u$ with $\underline{e}^s > \underline{e}^u \geq 0$. This specification of the human capital production functions, with $\alpha > 0$, reflects that ability a is more important for the acquisition of skilled human capital.

The fertility decision implies a decision about the optimal number of children, n_{it}, and an investment in child quality, reflected by the time invested in raising each child, r_{it}. This time investment in each child involves a fixed cost component, $\underline{r}$, and a deliberate time investment, $\tilde{r}_{it}$, such that $r_{it} = \underline{r} + \tilde{r}_{it}$. The fixed time cost is the minimum time investment that is required for the children to have a chance to survive childhood. Any deliberate investment above this fixed cost increases the quality of a child q_{it}, with the child quality production function given by

$$q_{it}\left(\underline{r}, \tilde{r}_{it}, g^s_{it+1}\right) = \left[\tilde{r}_{it}\delta\left(1 + g^s_{it+1}\right) + \underline{r}\right]^{\beta}, \tag{1.5}$$

where g^s_{it+1} is the rate of technological progress in the skill-intensive sector, $\beta \in (0,1)$, and $\delta > 0$. The functional form of a child's quality implies a complementarity between technological progress in the skill-intensive sector and the time invested in raising each child. A faster technological progress in the skill-intensive sector increases the incentive to invest more time in raising children, whereas slow technological progress in the skill-intensive sector induces parents to spend only the minimum time with their children, consistent with the usual assumptions in the literature (see, e.g., Galor and Weil, 2000; Cervellati and Sunde, 2015a).

Individuals maximize their lifetime utility by making education and fertility choices subject to two constraints: a time constraint and a budget constraint. The time constraint for each individual depends on adult longevity T_{it}, the time on the labor market l^j_{it}, the time costs for education $\underline{e}^j$, and the time invested in each surviving child, r_{it},

$$T_{it} \;\geq l^j_{it} + \underline{e}^j + \pi_{it} n^j_{it} r_{it}. \tag{1.6}$$

The budget constraint for each individual depends on the individual's level of human capital and stipulates that consumption expenditures are covered by labor income,

$$w^j_{it} h^j(a) l^j_{it} \geq T_{it}\; p^{rel}_{it} c^b_{it} + T_{it}\; c^s_{it}\,, \tag{1.7}$$

where labor income for an individual with human capital $j = \{u, s\}$ is given by $w^j_{it} h^j(a) l^j_{it}$. The price of the skill-intensive good serves as the numeraire. p^{rel}_{it} is the relative price of the basic good in terms of the skill-intensive good. The individual maximizes lifetime utility subject to both binding constraints taking wages and the demographic conditions as given.

1.3.4 Production

There are two sectors in an economy i. The basic good is produced in the basic sector using unskilled human capital, $H^{b,u}_{it}$, and land, L_i, as input factors. The input factor land in both economies remains constant over time and is normalized, $L_i \equiv 1$. There are no property rights on land, and thus no land rents. The basic good is produced with a constant returns to scale production function

$$Y_{it}^{b}\left(A_{it}^{b},H_{it}^{b,u},L_{i}\right)=A_{it}^{b}H_{it}^{b,u}L_{i}\overset{L_{i}\equiv 1}{=}A_{it}^{b}H_{it}^{b,u},\tag{1.8}$$

where A_{it}^{b} is total factor productivity in the basic sector.

The skill-intensive sector produces the skill-intensive good using unskilled human capital, $H_{it}^{s,u}$, and the entire stock of skilled human capital, $H_{it}^{s,s}$, with a constant returns to scale, vintage technology

$$Y_{it}^{s}\left(A_{it}^{s},x_{it},H_{it}^{s,u},H_{it}^{s,s}\right)=A_{it}^{s}\left[\left(1-x_{it}\right)\left(H_{it}^{s,u}\right)^{\eta}+x_{it}\left(H_{it}^{s,s}\right)^{\eta}\right]^{\frac{1}{\eta}},\tag{1.9}$$

where A_{it}^{s} is total factor productivity in the skill-intensive sector, $x_{it}\in(0,1)\ \forall\ t$ is the relative productivity of skilled human capital and $\eta\in(0,1)$ is the substitution parameter.[6] Since both goods are demanded by every generation t in economy i under autarky, production takes place in both sectors. Both goods are homogeneous across both economies.

Human capital is remunerated competitively. In particular, workers in the unskilled-intensive sector are paid their average product

$$\frac{w_{it}^{b,u}}{p_{it}^{rel}}=\frac{Y_{it}^{b}}{H_{it}^{b,u}}\Leftrightarrow w_{it}^{b,u}=p_{it}^{rel}A_{it}^{b}\tag{1.10}$$

while wages in the skill-intensive sector equal marginal productivity,

$$w_{it}^{s,u}=\frac{\partial Y_{it}^{s}}{\partial H_{it}^{s,u}}\qquad w_{it}^{s,s}=w_{it}^{s}=\frac{\partial Y_{it}^{s}}{\partial H_{it}^{s,s}}.\tag{1.11}$$

We assume that unskilled workers are perfectly mobile between the two sectors, so unskilled wages equalize $w_{it}^{b,u}=w_{it}^{s,u}=w_{it}^{u}$, and the share of unskilled labor employed in the basic sector is given by θ_{it}^{b}. The relative price, p_{it}^{rel}, is equal to w_{it}^{u}/A_{it}^{b}.

[6]This implies an elasticity of substitution greater than 1 to ensure that skilled and unskilled human capital are not too strong complements, as is standard in the literature and consistent with empirical results (see, e.g., Acemoglu and Autor, 2011).

1.3.5 Technological Progress

Technological progress in economy i is characterized by improvements in total factor productivity in both sectors and higher relative productivity of skilled human capital in the skill-intensive sector, as is standard in models of long-run growth. In particular, total factor productivity in both sectors increases with the share of skilled individuals in the previous generation,

$$\begin{aligned} g^b_{it+1} &= \frac{A^b_{it+1} - A^b_{it}}{A^b_{it}} = B\left(\lambda_{it}\right) = \phi^b \lambda_{it} \\ g^s_{it+1} &= \frac{A^s_{it+1} - A^s_{it}}{A^s_{it}} = S\left(\lambda_{it}\right) = \phi^s \lambda_{it} \end{aligned} \tag{1.12}$$

with $\phi^b > 0$ and $\phi^s > 0$. As in Galor and Mountford (2008), it is assumed that the advancement in total factor productivity in the skill-intensive sector is larger than in the basic sector, that is $\phi^s > \phi^b$.

The relative productivity of skilled human capital in the skill-intensive sector, x_{it}, increases with the share of skilled individuals in the parental generation, λ_{it-1}, and with the scope for further improvement, $1 - x_{it-1}$:

$$\frac{x_{it} - x_{it-1}}{x_{it-1}} = X\left(\lambda_{it-1}, x_{it-1}\right) = \lambda_{it-1}\left(1 - x_{it-1}\right). \tag{1.13}$$

This specification ensures positive gains in the relative productivity. Moreover, for any λ_{it}, improvements in x_{it} are getting smaller as x_{it} converges to its upper limit equal to one. Together, these technology dynamics imply that eventually the demand for human capital will trigger a demographic transition, regardless of the initial conditions of productivity in the two sectors.

1.3.6 Individual Optimization

The optimal decisions about consumption, the number of children, and the time invested raising each child conditional on the individual human capital type $j = \{u, s\}$ are uniquely determined by the first order conditions.

Lemma 1. *For any* $\{T_{it} \in (\underline{e}^s, \infty), \pi_{it} \in (0,1), p^{rel}_{it} \in (0, \infty), w^j_{it} \in (0, \infty), g^s_{it+1} \in (0, \infty)\}$, *the* *optimal consumption and fertility choices of an individual acquiring human capital $j = \{u, s\}$ are given by*

$$
\begin{aligned}
c_{it}^{b,j} &= \frac{w_{it}^{j} h^{j}(a)}{p_{it}^{rel}} \cdot \frac{\gamma^{b}(T_{it} - \underline{e}^{j})}{[T_{it}(\gamma^{b} + \gamma^{s}) + \gamma^{n}]} \\
c_{it}^{s,j} &= w_{it}^{j} h^{j}(a) \cdot \frac{\gamma^{s}(T_{it} - \underline{e}^{j})}{[T_{it}(\gamma^{b} + \gamma^{s}) + \gamma^{n}]} \\
n_{it}^{j} &= \frac{\gamma^{n}(T_{it} - \underline{e}^{j})}{\pi_{it} r_{it}^{j}[T_{it}(\gamma^{b} + \gamma^{s}) + \gamma^{n}]},
\end{aligned}
\tag{1.14}
$$

where r_{it}^{j} is given by

$$
r_{it}^{u} = r_{it}^{s} = \max \left\{ \underline{r} \, , \, \frac{1 - \left[\frac{1}{\delta\left(1 + g_{it+1}^{s}\right)} \right]}{1 - \beta} \underline{r} \right\}. \tag{1.15}
$$

Proof of Lemma 1. See Appendix A.2. □

The resulting average (gross) fertility in the population of an economy is

$$
n_{it} = N\left(T_{it}, \lambda_{it}, \pi_{it}\right) = \frac{\gamma^{n}}{\pi_{it} r_{it}[T_{it}(\gamma^{b} + \gamma^{s}) + \gamma^{n}]} \left[(1 - \lambda_{it})(T_{it} - \underline{e}^{u}) + \lambda_{it}(T_{it} - \underline{e}^{s})\right]. \tag{1.16}
$$

The demographic variables have different effects on gross and net fertility. The child survival probability π_{it} has a negative effect on gross fertility through a substitution effect. Net fertility is not affected by π_{it}. Adult life expectancy T_{it} impacts fertility in three channels. The first channel is a positive income effect. The longer the expected lifetime, the larger lifetime labor supply thereby making it easier to sustain constant consumption levels throughout life, and hence fertility increases. The second effect is a differential fertility effect. If T_{it} increases, the share of skilled individuals, λ_{it}, increases, and gross and net fertility is reduced since skilled individuals have fewer children than unskilled individuals. The third channel is an indirect effect. The share of skilled workers λ_{it} positively affects technological progress g_{it+1}^{s} and thereby increases the incentive to spend more time raising children. The optimal time raising children increases and fertility is reduced via a quantity-quality trade-off.

The education decision for an individual is determined by comparing the indirect lifetime utilities for both types of human capital at the beginning of adulthood. For any vector of wages, there exists a unique ability threshold $\tilde{a}_{it} \in (0, 1)$ for which both indirect utilities are equal.

Lemma 2. *For any $\{T_{it} \in (\underline{e}^s, \infty), \pi_{it} \in (0, 1), w_{it}^j \in (0, \infty)\}$, there exists a unique $\tilde{a}_{it} \in (0, 1)$ implicitly defined by*

$$\frac{h^s(\tilde{a}_{it})}{h^u} = \left(\frac{T_{it} - \underline{e}^u}{T_{it} - \underline{e}^s} \right)^{\frac{T_{it}(\gamma^b+\gamma^s)+\gamma^n}{T_{it}(\gamma^b+\gamma^s)}} \frac{w_{it}^u}{w_{it}^s}, \tag{1.17}$$

such that all individuals with $a \leq \tilde{a}_{it}$ optimally choose to acquire unskilled human capital, $j = u$, and all individuals with $a > \tilde{a}_{it}$ acquire skilled human capital, $j = s$.

Proof of Lemma 2. See Appendix A.2. □

The unique ability threshold characterizes the equilibrium share of skilled individuals in generation t, λ_{it}. This share is increasing in the relative wage rate w_{it}^s / w_{it}^u, adult longevity T_{it}, decreasing in time cost $\underline{e}^s$, and unaffected by child survival probability π_{it}.

1.3.7 Intragenerational General Equilibrium

The intragenerational general equilibrium for generation t in economy i under autarky is characterized by a unique share of skilled individuals, λ_{it}, wage equalization of unskilled labor across sectors, θ_{it}^b, and equilibrium in the goods market, p_{it}^{*rel}. The optimal choices of individuals and market wages are jointly determined.

Proposition 1. *For any generation t in economy i with $\{T_{it} \in (\underline{e}^s, \infty),\ \pi_{it} \in (0, 1),\ x_{it} \in (0, 1)\}$, there exists a unique share of skilled individuals*

$$\lambda_{it} = \Lambda(T_{it}, x_{it}, \theta_{it}^b) \tag{1.18}$$

and a unique allocation of unskilled labor across sectors $\theta_{it}^b \in (0, 1)$, for which individual optimal education decisions are consistent with aggregate production, demand, and market wages. The equilibrium share of skilled individuals is an increasing function of adult longevity T_{it}, with slope zero for $T \searrow \underline{e}^s$ and $T \nearrow \infty$.

Proof of Proposition 1. See Appendix A.2. □

The key state variables affecting λ_{it} are adult longevity T_{it}, the relative importance of skilled human capital in the skill-intensive sector, x_{it}, and the share of unskilled labor employed in the basic sector, θ^b_{it}. A higher T_{it} increases λ_{it}, but the effect is non-linear. When T_{it} is low, the locus $\Lambda(T_{it}, x_{it}, \theta^b_{it})$ is convex. Large improvements in T_{it} are needed for a fraction of individuals acquiring skilled human capital due to the higher time fixed costs $\underline{e}^s$. When T_{it} is high, $\Lambda(T_{it}, x_{it}, \theta^b_{it})$ is concave. Further increases in the share of skilled individuals require large improvements in adult longevity due to the declining marginal product of skilled human capital in the skill-intensive sector and the constant average product of unskilled human capital in the basic sector. The skill intensity in production, x_{it}, and the share of unskilled labor employed in the basic sector, θ^b_{it}, influence market wages, thereby the skill premium (wage ratio) and thus λ_{it}.

1.3.8 Equilibrium Dynamics

The sequence $\left\{T_{it}, x_{it}, \lambda_{it}, \theta^b_{it}, A^b_{it}, A^s_{it}, \pi_{it}, n_{it}\right\}$ for $t = [0, 1, ..., \infty)$ describes the equilibrium development path of economy i. The path results from the evolution of the non-linear dynamic system:

$$\begin{cases} T_{it} & = T\left(\lambda_{it-1}\right) \\ x_{it} & = X\left(\lambda_{it-1}, x_{it-1}\right) \\ \lambda_{it} & = \Lambda(T_{it}, x_{it}, \theta^b_{it}) \\ \theta^b_{it} & = \Upsilon\left(\lambda_{it}, x_{it}, A^b_{it}, A^s_{it}, p^{*rel}_{it}\right) \\ A^b_{it} & = A^b_{it-1}\left[1 + B\left(\lambda_{it-1}\right)\right] \\ A^s_{it} & = A^s_{it-1}\left[1 + S\left(\lambda_{it-1}\right)\right] \\ \pi_{it} & = \Pi\left(\lambda_{it-1}, x_{it-1}, A^b_{it-1}, A^s_{it-1}, \theta^b_{it-1}, p^{*rel}_{it-1}\right) \\ n_{it} & = N\left(T_{it}, \lambda_{it}, \pi_{it}\right) \end{cases} \tag{1.19}$$

The dynamic system is block recursive. For a given initial skill-intensity x_{it-1} and share of skilled individuals λ_{it-1}, the skill-intensity of production, x_{it}, the levels of factor productivity in the two sectors, and the survival probability s_{it} – and hence adult longevity T_{it} – can be readily determined. With adult longevity and technology given, the share of skilled individuals λ_{it} and the labor allocation in terms of the share of unskilled labor employed in the basic sector θ^b_{it} can be determined by solving two equations in two unknowns. With this allocation, the relevant state variables for the next iteration are given. The dynamics of these variables are not influenced by n_{it} and π_{it}, which depend on pre-determined levels of the state variables. There are no scale effects and population size is irrelevant to the dynamics under autarky.

The development process features reinforcing feedback effects between increases in adult longevity, increases in human capital, the sorting of individuals to both sectors, and technological progress.

Proposition 2. *For a sufficiently low x_{i0} and θ^b_{i0} given, the development path of an economy is characterized by:*

(i) An initial phase with $\lambda_{it} \simeq 0$, low adult longevity that is determined by the baseline survival probability $T_{it} \simeq T(\underline{s}_i)$, high child mortality $\pi_{it} \simeq \underline{\pi}$, slow income growth, and gross fertility given by

$$n_{it} = \frac{\gamma^n (T_{it}(\underline{s}_i) - \underline{e}^u)}{\underline{\pi}\ \underline{r}\,[T_{it}(\underline{s}_i) \cdot (\gamma^b + \gamma^s) + \gamma^n]} \tag{1.20}$$

(ii) A final phase of balanced growth in income per capita, with a constant share of skilled individuals $\overline{\lambda}_{it}$, adult longevity at its corresponding upper bound with $s_{it} \simeq \overline{s}_{it}$, low child mortality $\pi_{it} \simeq 1$, and with gross fertility given by

$$n_{it} = \frac{\gamma^n}{\overline{r}\,[T_{it}(\overline{s}_{it}) \cdot (\gamma^b + \gamma^s) + \gamma^n]} \left[(1 - \overline{\lambda}_{it})(T_{it}(\overline{s}_{it}) - \underline{e}^u) + \overline{\lambda}_{it}(T_{it}(\overline{s}_{it}) - \underline{e}^s)\right] \tag{1.21}$$

(iii) An endogenous transition from (i) to (ii).[7]

Proof of Proposition 2. See Appendix A.2. □

[7]Optimal $\overline{r}$ depends on the growth rate of total factor productivity in the skill-intensive sector on the balanced growth path, $g^s_{it+1} = \phi^s \overline{\lambda}_{it}$. The maximum survival probability is $s_{it}(\overline{\lambda}_{it}) = \overline{s}_{it}$, where $\overline{\lambda}_{it}$ is the constant share of skilled individuals on the balanced growth path.

Adult life expectancy and the share of skilled individuals affect the transition to the balanced growth path. A lower baseline survival probability of adults, $\underline{s}_i$, implies a later onset of the economic and demographic transition since the initial generation faces a time cost for education that is relatively larger in terms of expected adult lifetime. The initial, bidirectional feedback effects of the development process are weaker, with the consequence of a later onset of the endogenous transition to sustained growth. The difference in the timing of the take-off allows us to introduce trade between two economies at different levels of demographic development.[8]

1.3.9 International Trade

For concreteness and without loss of generality, we consider a setting in which the global North and South interact and label the two economies as the "forerunner" ($fore$) and "latecomer" ($late$) economy, respectively. Once the two economies open up for trade, both goods can be traded.[9] The timing of the trade opening is exogenous and occurs once a new adult cohort enters each of the two economies. Trade between the two economies is subject to friction. In particular, both economies face symmetric trade costs that reflect the many factors that impede international trade like distance, language, tariffs, shipping, and transportation cost. The trade cost, ν_t, is endogenous and modeled as a function of the ratio between the market-clearing relative prices in the economies under autarky, $p^{*rel}_{fore,t}$ and $p^{*rel}_{late,t}$,

[8]Linking the timing of the demographic transition to baseline survival rates is consistent with our focus on demography and the role of demographic development for long-run growth, as well as with evidence (Cervellati and Sunde, 2015b). Alternative assumptions about country-specific parameters in other dimensions governing the timing of the transition would leave the qualitative results unaffected.

[9]Our analysis abstracts from migration. The modeling of migration decisions would imply additional complications that would obscure the effects of interactions in trade. Moreover, the scope of migration for affecting the equilibrium dynamics of main interest appears limited in light of a stock of less than 4% of migrants in the world, many of which are refugees (see, e.g., `www.migrationdataportal.org`).

$$\nu_t = \begin{cases} 1 + \left[\left(\frac{p^{*rel}_{fore,t}}{p^{*rel}_{late,t}} - 1 \right) \cdot \xi \right] & \text{if } \frac{p^{*rel}_{fore,t}}{p^{*rel}_{late,t}} > 1 \\ 1 + \left[\left(\frac{p^{*rel}_{late,t}}{p^{*rel}_{fore,t}} - 1 \right) \cdot \xi \right] & \text{if } \frac{p^{*rel}_{fore,t}}{p^{*rel}_{late,t}} < 1 \end{cases} \tag{1.22}$$

This specification implies that the trade cost ν_t is modeled equivalent to a tariff that corresponds to a fraction $\xi \in (0,1)$ levied on the difference between the maximum, $\nu_t = p^{*rel}_{fore,t}/p^{*rel}_{late,t}$, and the minimum trade cost, $\nu_t = 1$. Hence, parameter ξ determines the magnitude of all frictions that impede international market integration. The nature of the trade cost ν_t is inspired by the notion that any trade model predicts a gravity equation that relates trade flows to the underlying trade costs regardless of the particular motivation for international trade (e.g., Meissner, 2014). The specification in (1.22) is analogous to the expression of trade costs as "one plus a tariff-equivalent" that Jacks *et al.* (2011) derived from the gravity equation along the lines of Anderson and van Wincoop (2003). Since the ratio of the market-clearing prices is a sufficient statistic for the scope of trade, and hence trade volumes, this specification is equivalent to assuming that a fraction of the traded goods is lost during their exchange, so that the total trade costs are reflected in the cost of producing the lost goods. Without any trade cost, the two economies would fully specialize in the production of the respective good for which they have a comparative advantage (see, e.g., Galor and Mountford, 2008, for an analysis of this case). Besides being more realistic, the consideration of trade costs implies positive trade volumes in both goods and thus allows the determination of both relative prices and their corresponding trade volumes in the open economy equilibrium as well as their dynamics. The precise formulation is convenient but does not affect the main qualitative results, as will be discussed below.

Each economy exports the good for whose production the economy has a comparative advantage. Since the two economies can only exchange goods with each other, trade is balanced. The trade cost drives a wedge between the relative prices in the economies. If the latecomer economy ($late$) exports the basic good to the forerunner economy ($fore$), i.e., if

$p^{rel}_{fore,t} > \nu_t p^{rel}_{late,t}$, then the forerunner economy exports in exchange the skill-intensive good to the latecomer economy to ensure a balanced trade account. The two economies trade with each other until $p^{rel}_{fore,t} = \nu_t p^{rel}_{late,t}$.[10] The trade flows are reversed if $p^{rel}_{late,t} > \nu_t p^{rel}_{fore,t}$. Price convergence again implies $p^{rel}_{late,t} = \nu_t p^{rel}_{fore,t}$. In the open economy case, the clearing conditions for the goods markets in each country are replaced by a global condition in which global supply equals global demand, taking into account the different population sizes and skill compositions in the two economies. Note that this implies that in the open economy case adult longevity in one economy also influences the education decisions and skill composition in the other economy, and vice versa.

Trade entails efficiency gains. The static gains from trade correspond to the efficiency gains experienced by both generations alive at the time of opening in both economies, compared to autarky. The economy with a comparative advantage in the skill-intensive good exhibits a higher share of skilled individuals, a lower fertility rate, faster improvements in adult longevity, and faster technological progress than under autarky. The opposite is true for the economy with the comparative advantage in the basic good. Nevertheless, the members of both generations alive at a given point in time in both economies enjoy higher consumption per capita in the open economy case compared to autarky. The dynamic gains from trade are less clear. As will be shown in more detail below, the timing of openness plays a crucial role in the consequences of trade on the development trajectory. The reason is that due to differential demographic development, the comparative advantages of the two economies vary over time. This implies that, depending on the timing of the opening, completely different equilibrium paths might emerge. It is already clear from this discussion, however, that international trade and the specialization in production affect the development process of both economies in the short run and in the long run.

[10]Using the expression by Jacks *et al.* (2011) and normalizing the domestic trade cost to one, the import price in the forerunner economy for a basic good shipped from the latecomer economy is $p^{rel}_{fore,t} = \nu_t \cdot p^{rel}_{late,t}$. This price convergence is in line with our model.

1.4 The Long-Run Dynamics of Global Development

This section analyzes the model dynamics by focusing on the differences between development in isolation and development from a global perspective. After discussing the numerical implementation of the model, we proceed in two steps. First, we present the standard dynamics of a single-country long-run growth framework. Second, we present an analysis of comparative dynamics, contrasting the dynamics of autarky with those of a global version of the model. Finally, we end by presenting empirical implications of the model.

1.4.1 Model Calibration

To focus attention on the interplay between global interactions and the timing of the economic and demographic transition, we calibrate the baseline model by setting all time-invariant parameters to identical values for both economies along the lines of Cervellati and Sunde (2015b), with one exception discussed below. The time-invariant parameters refer to the utility function and production function $\{\gamma^b, \gamma^s, \gamma^n, \eta\}$, technological progress in both sectors $\{\phi^b, \phi^s\}$, child survival $\{\underline{\pi}, \kappa\}$, the maximum length of adulthood $\{\overline{T}\}$, the costs and benefits of human capital acquisition $\{\underline{e}^u, \underline{e}^s, \alpha\}$, the ability distribution $\{\mu, \sigma\}$, the production function of child quality $\{\beta, \underline{r}, \delta\}$, as well as the initial conditions for technology in both sectors, $\{A^b_{i0}, A^s_{i0}, x_{i0}\}$. The only dimension of heterogeneity across the two economies refers to the time-invariant parameters that govern the baseline survival probability of adults, $\{\underline{s}_{fore}, \underline{s}_{late}\}$. To maintain a maximum age-specific survival probability equal to one on the balanced growth path in both economies, we also set the parameters that reflect the scope for improvements in adult survival, $\{\rho_{fore}, \rho_{late}\}$, correspondingly.

Table 1.3 summarizes the details of the calibration of the different parameters. It should be noted that the goal of the quantitative analysis is to provide an illustration of the role of global interactions and of the timing of opening up to these interactions for the entire long-run development process, and not to match empirical moments of particular countries in particular time periods.

The difference in the baseline survival probability of adults between the two economies

Table 1.3: *Calibration of Parameters*

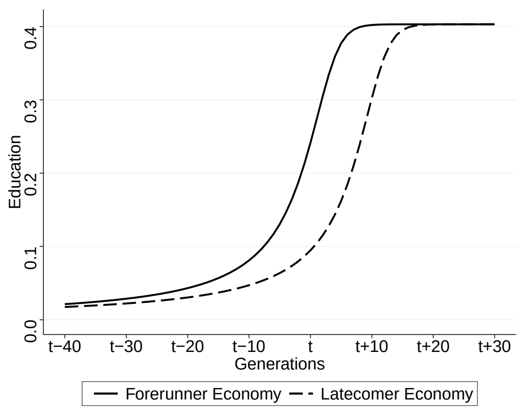
Parameter		Value	Details
Maximum length of adulthood	$\overline{T}$	20	Generation length
Preferences	$\{\gamma^b, \gamma^s, \gamma^n\}$	$\{0.5, 0.5, 9\}$	Utility weight for fertility same as in Cervellati and Sunde (2015b)
Production function	η	0.2857	Elasticity of substitution between skilled and unskilled human capital (see Acemoglu, 2002)
Growth rates for total factor productivity	$\{\phi^b, \phi^s\}$	$\{0.3, 0.4\}$	Larger advancements in the skill-intensive sector and growth rates of approximately 1.7% p.a. for the maximum $\overline{\lambda}_{it}$
Time cost for unskilled/skilled education	$\{\underline{e}^u, \underline{e}^s\}$	$\{0, 3.16\}$	Calculated to get the same relative time cost as in Cervellati and Sunde (2015b)
Productivity of ability for human capital	α	6.1	Income dispersion
Mean/standard deviation of ability distribution	$\{\mu, \sigma\}$	$\{0.49, 0.066\}$	IQ distribution
Baseline survival rate	$\{\underline{s}_{fore}, \underline{s}_{late}\}$	$\{0.9421, 0.9334\}$	Calculated to get the initial relative time cost as in Cervellati and Sunde (2015b) for the forerunner economy and a delayed take-off of the latecomer economy of eight generations
Scope for improvement in survival probability	$\{\rho_{fore}, \rho_{late}\}$	$\{0.1437, 0.1653\}$	Adult survival of 1 in the limit
Minimum child survival and elasticity parameter	$\{\underline{\pi}, \kappa\}$	$\{0.5, 0.0016\}$	Child survival of $\approx$1 in the limit
Function quality of children	$\{\beta, \underline{r}, \delta\}$	$\{0.8712, 4.2387, 1.0467\}$	Net fertility of one with $\overline{\lambda}_{it}$ and demographic transition at generation t in the forerunner economy
Initial importance of skilled human capital	x_{i0}	0.0433	Comparative advantage in the skill-intensive good at t in the forerunner economy
Total Factor Productivity	$\{A^b_{i0}, A^s_{i0}\}$	$\{10, 10\}$	Approximate level of log GDP per capita on the balanced growth path
Timing of Openness	$\{t-3, t\}$	$\{147, 150\}$	Three generations before and at the onset of the demographic transition in the forerunner economy
Tariff equivalent	ξ	$\{0.6, 0.75, 0.9\}$	Comparative static values with the minimum value of 0.6 such that the latecomer economy does not end in a poverty trap and never takes off

can be justified by economy-specific differences in the extrinsic mortality environment, which reflects, e.g., the exposure to climate, geography, and the corresponding infectious diseases and pathogens (see, e.g., Cervellati *et al.*, 2012). A favorable mortality environment is reflected by a higher baseline survival probability, $\underline{s}_i$, which translates into initially higher adult longevity, T_{i0}, and therefore into a higher initial share of skilled individuals, λ_{i0}. Hence, the economy with the higher baseline adult survival probability is the economy that experiences the economic and demographic transition earlier. In the following, we model the forerunner economy as being endowed with a higher baseline adult survival probability, $\underline{s}_{fore} > \underline{s}_{late}$. This reflects differences in, e.g., geography and climate that imply higher baseline longevity in the global North as compared to the global South. Correspondingly, this implies that the latecomer economy experiences a later transition to sustained economic growth in autarky. In the baseline specification, we consider a setting in which, under autarky, the latecomer economy enters the demographic transition eight generations after the forerunner economy. As baseline, we calibrate trade costs to $\xi = 0.75$, and for robustness checks we also adopt alternative specifications values of $\xi = 0.6$ or $\xi = 0.9$.

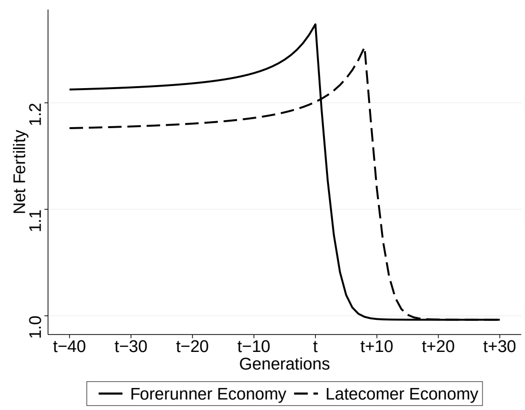
1.4.2 Autarky – Dynamics of Closed Economies

Under autarky, the development of an economy is characterized by a long phase of slow development followed by an endogenous transition to a final phase of balanced growth as discussed in Section 1.3.8. Figure 1.1 illustrates the development paths for the forerunner economy (solid line) and the latecomer economy (dashed line) in different dimensions. In each panel, the horizontal axis measures the number of generations relative to the onset of the demographic transition in the forerunner economy, which is marked by the onset of the decline in net fertility that occurs in the forerunner economy during the life of generation t.

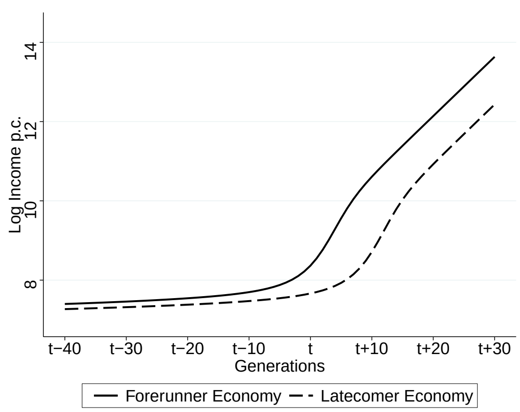
The dynamics of the shares of skilled individuals, λ_{it}, and the net fertility rate, $\pi_{it} n_{it}$, are shown in Figures 1.1(a) and 1.1(b). During the early phase of development, the share of skilled individuals is low, whereas net fertility is fairly high as the result of differential fertility between unskilled individuals and high-skilled individuals and the large share of



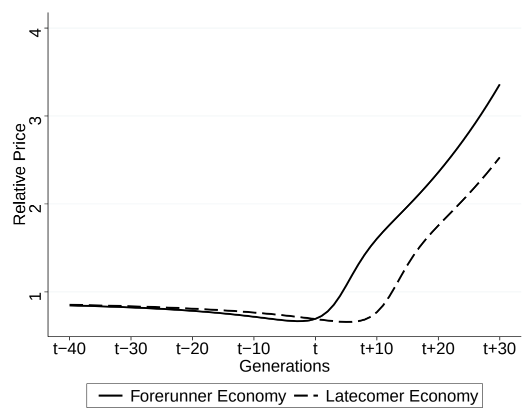
(a) Share of Educated Individuals



(b) Net Fertility Rate



(c) Log Income p.c.



(d) Relative Price

Figure 1.1: *Global Development under Autarky*

unskilled individuals. The initial phase is characterized by low demand for skilled human capital and low adult longevity. The slow, endogenous improvements in life expectancy through the intergenerational linkages increase the share of skilled individuals and the rate of technological progress over time. Eventually, the increase in the demand for skills and the increase in adult longevity trigger the economic and demographic transition, with the consequence of a rapid increase in the share of skilled individuals within a few generations. As λ_{it} approaches its long-run level $\overline{\lambda}_{it}$, the expansion of human capital slows down. Simultaneously with the onset of the education expansion, the demographic transition implies a sustained drop in fertility. The difference in the baseline longevity of adults between the two economies is responsible for the differences in the fertility rates and, more importantly, for the delay in the transition that is observed in the latecomer economy.

Figures 1.1(c) and 1.1(d) plot the evolution of income per capita and of the relative price of basic goods to skill-intensive goods. After an initial phase of quasi-stagnation, growth in income per capita accelerates substantially with the onset of the demographic transition and ultimately converges to a sustained growth path. The development of the relative price reflects the technological progress in both sectors as well as the shift towards skilled human capital as the dominant input factor in the skill-intensive sector. Before the onset of the demographic transition, the relative price exhibits a moderate decline since the productivity gains are higher in the unskilled-intensive sector and unskilled human capital is a substantial factor of production in the skill-intensive sector. The relative importance of skilled human capital and total factor productivity in both sectors increase over time, which leads to an increase in relative prices in the long run due to the expansion in skilled human capital and the continuing technological progress in the skill-intensive sector.

The simulated model dynamics illustrate the development processes as described by Proposition 2. The differences in the development processes of the two economies are driven exclusively by the difference in the baseline survival probabilities of adults in the two economies. This difference in the timing of the take-off enables us to analyze the effects of global trade interactions on the evolution of economies and investigate the role of the timing of the opening to trade.

1.4.3 Global Dynamics – The Impact of Trade

In this section, we investigate the consequences of trade interactions on global long-run development dynamics. Concretely, we consider two different scenarios of opening that differ with respect to the time at which the opening occurs. The first opening scenario considers an opening to trade early on in the development process, three generations before the onset of the demographic transition in the forerunner economy, $t-3$. The second opening scenario considers a later opening that occurs when the forerunner economy enters the demographic transition, t. The early opening corresponds to a historical example of pre-industrial globalization, whereas the late opening corresponds to globalization in the context of industrialization or thereafter.

The simulation results presented below represent an analysis of comparative dynamics by illustrating the consequences of international trade on the evolution of both economies, conditional on the timing when the opening occurs. We compare the effects of trade on the dynamics of education, population, and income per capita relative to autarky and relative to each other, which provides additional insights into the interplay between the timing of globalization and demographic development, as reflected in the timing of the transition.

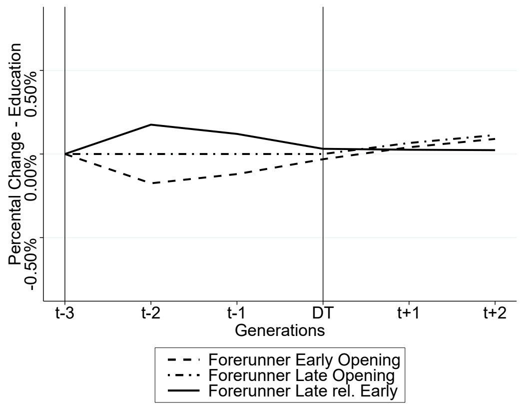
Figure 1.2 illustrates the impact of international trade on global development in terms of education, population, and income per capita. The left column of panels depicts the results for the forerunner economy and the right column of panels for the latecomer economy. In each panel, the black vertical lines represent the timing of the early and late opening, respectively, and the three non-linear lines depict the consequences of trade evaluated in terms of three different contrasts. The dashed line in each panel depicts the (percentage) difference in the respective variable in the early opening scenario relative to autarky. The dot-dashed line in each panel depicts the (percentage) difference in the respective variable in the late opening scenario relative to autarky. The solid black line in each panel indicates the (percentage) difference of the respective variable between the late opening relative to the early opening. This allows us to analyze the question of the role of trade for long-run development, as well as of the role of the timing of opening to trade.

First, consider the forerunner economy (the left column of panels of Figure 1.2). From the previous discussion, it is clear that, due to technological progress, the forerunner economy is more developed and has a comparative advantage in the production of the basic, unskilled-intensive good before the onset of the demographic transition. In the early opening scenario, this implies that the forerunner economy specializes according to its comparative advantage. Compared to autarky, this induces a slow-down in the dynamics of the share of skilled individuals in the following generations, as indicated by the negative values of the dashed line prior to the demographic transition (DT). The same is true relative to the late opening scenario (the solid line), see Figure 1.2(a). Likewise, a lower share of skilled individuals implies a slowdown in the evolution of adult longevity. During later stages of the development process, towards the onset of the demographic transition, the forerunner economy develops a comparative advantage of the skill-intensive good. As a consequence, the share of skilled individuals is relatively higher in the late opening scenario compared to the early scenario, and this difference increases after the demographic transition and the associated opening, as indicated by the dot-dashed line relative to autarky, and the solid line when comparing the two opening scenarios to each other. Hence, the effects of opening to trade on development depend crucially on the timing at which the opening occurs. In fact, despite the static gains from trade, the development of the forerunner economy is delayed by an early opening to trade, but accelerated by a late opening around the demographic transition.

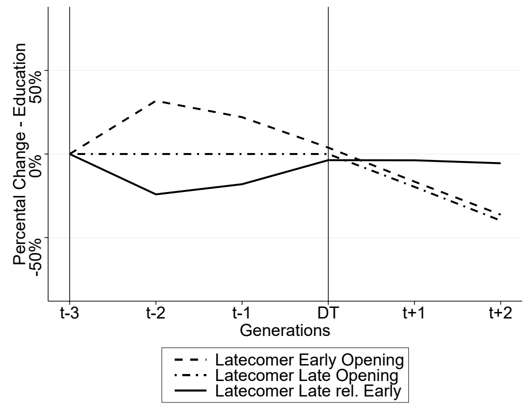
The differences in the dynamics of the share of skilled individuals induced by international trade are mirrored in the population dynamics as depicted in Figure 1.2(c). In the early opening scenario, due to the fertility differential between unskilled and high-skilled individuals, the population in the forerunner economy initially grows faster than under autarky or than under the late opening regime. Likewise, a lower share of skilled individuals slows down the evolution of adult longevity and the income effect on fertility is lower,

Forerunner Economy

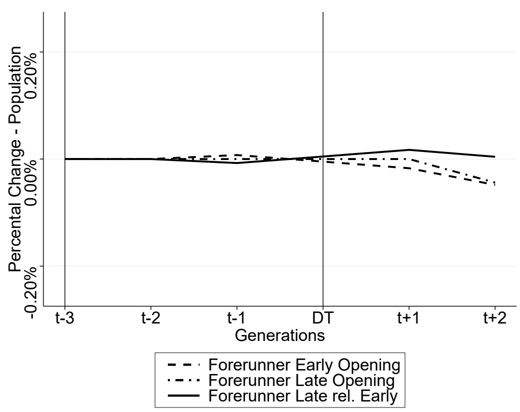
Latecomer Economy



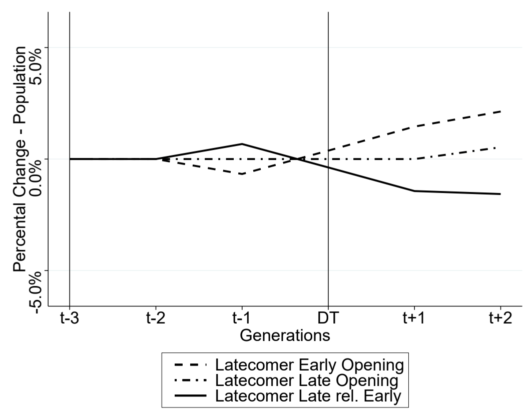
(a) Share of Educated Individuals



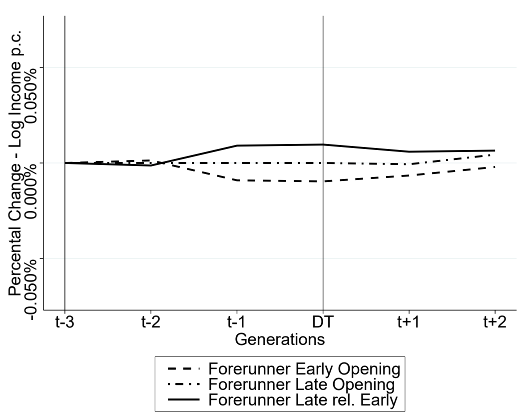
(b) Share of Educated Individuals



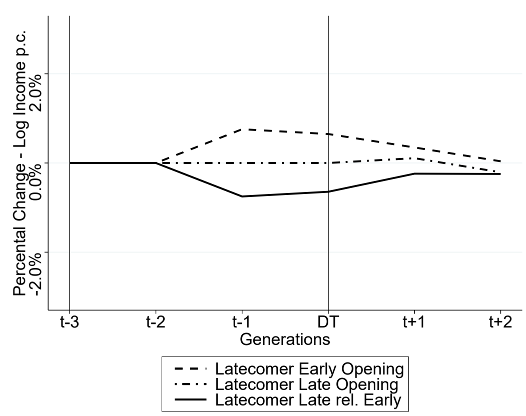
(c) Population



(d) Population



(e) Log Income p.c.



(f) Log Income p.c.

Figure 1.2: *Comparative Dynamic Effects of International Trade: Early vs. Late Opening*

which reduces population growth relative to the late opening. This development process is augmented by the change in comparative advantage. The change in the comparative advantage, which induces different dynamics in the late opening scenario, implies a slightly higher share of skilled individuals. The continuous specialization increases the share of skilled individuals and the time spent on quality of children (as opposed to quantity). The late opening scenario is associated with a higher share of skilled individuals and more time spent on child quality, which implies a reduction in fertility and population growth.

Figure 1.2(e) completes the analysis by illustrating the implications of trade for the trajectory of income per capita. The plot documents that the gains from trade that arise with an early opening to international trade entail a positive income differential compared to autarky or to a later opening. The figure also shows, however, that the static gains in the short run are counteracted by dynamic effects that have negative consequences for development. In particular, the figure shows that the forerunner economy experiences a worse development of income per capita compared to autarky already two generations after the early opening, and continues to exhibit lower income over the subsequent generations. The reason is that the relative decline in the share of skilled individuals slows down the rate of technological progress in the economy. Instead, the forerunner economy is better off in the long run under the late opening scenario. This suggests that opening to trade does not have an unambiguously positive effect once the dynamic consequences are accounted for. The forerunner economy only benefits more from a late opening to international trade at the onset of the demographic transition.

Next, consider the implications of the two scenarios of international trade opening for the latecomer economy. The right column of panels shows the corresponding plots for the share educated, population, and income per capita. The plots show that the effects of trade opening on the latecomer economy are qualitatively the opposite of those for the forerunner economy, with the exception of the evolution of the population. For the latecomer economy, a later opening results in lower education and income per capita than an early opening. The reason is the positive effect on human capital due to the comparative advantage in the skill-intensive good in the early opening scenario, and its impact on the rate of technological progress and income per capita. However, despite the initially lower fertility as a consequence of higher education, the income effect dynamically leads to higher fertility rates, which implies a relatively stronger population growth in the latecomer economy after several generations under the early opening scenario, as compared to autarky or under the late opening scenario. Population increases even more once the forerunner economy specializes in the skill-intensive good. Overall, trade entails positive effects for the latecomer economy in the early opening scenario in which the patterns of trade lead to increased incentives for human capital acquisition.

1.4.4 Sensitivity and Robustness

In this section, we provide a brief discussion of a comprehensive set of sensitivity checks that we conducted to assess the generality of the results. The respective details can be found in the Appendix.

Variation in Trade Costs. To assess the sensitivity of the results with respect to the size of trade costs, we replicated the analysis with alternative parameterizations.[11] The results for the implications of international trade are qualitatively identical and quantitatively very similar for alternative specifications of trade costs.[12]

The Timing of Opening Before the Demographic Transition. The baseline results have been obtained by considering a temporal distance in the demographic transition under autarky between the forerunner and the latecomer economy of eight generations and analyzing an opening to international trade of three generations before the onset of the demographic transition of the forerunner economy, and right after the onset of the demographic transition of the forerunner economy. The results are qualitatively unaffected by considering an

[11] Specifically, while the baseline results are based on a calibration of $\xi = 0.75$, we simulated the model for alternative specifications with $\xi = 0.6$ or $\xi = 0.9$.

[12] See Appendix Figures A.1 and A.2 in comparison to Figure 1.2.

opening at alternative dates. In particular, the dynamics that result from an opening one or two generations before the forerunner economy's demographic transition are quantitatively bounded between the baseline results.[13]

The Timing of Opening After the Demographic Transition. To investigate whether the results are sensitive to the timing of the opening right after the onset of the demographic transition in the forerunner economy or with some delay, we considered the dynamics that result from an opening up to three generations after the forerunner economy's demographic transition. Again, the effects of trade are qualitatively identical but quantitatively smaller, than for the baseline.[14]

To analyze the sensitivity of the results for globalization with respect to opening periods just before the demographic transition of the latecomer economy, we considered the dynamics for opening periods between five and eight generations after the transition of the forerunner, which corresponds to an opening between three generations before the onset of the latecomer economy's demographic transition and in the year of the latecomer economy's demographic transition. Again, the results are qualitatively identical.[15]

Opening After the Demographic Transition of Both Economies. Finally, we analyzed whether the results are sensitive with respect to an opening after the onset of the demographic transition of the latecomer economy. The results remain qualitatively identical.[16]

Placebo Scenarios. To verify the result of a contingency of the effects of globalization on the level of demographic development, we conducted several simulations as placebos. In particular, we considered the effects of opening to trade several generations before the onset of the demographic transition in the forerunner economy. The results document that the

[13]See Appendix Figure A.3–A.5.

[14]See Appendix Figures A.6–A.8.

[15]See Appendix Figures A.9–A.11.

[16]See Appendix Figures A.12–A.14.

effects of globalization are closely intertwined with the demographic transition. Differences across openings are quantitatively barely detectable and the effects are exclusively related to variation in relative prices.[17] A similar finding emerges for an alternative placebo scenario of considering the effects of opening several generations after the onset of the demographic transition in the latecomer economy.[18]

1.5 Empirical Implications: The Role of Demography Reconsidered

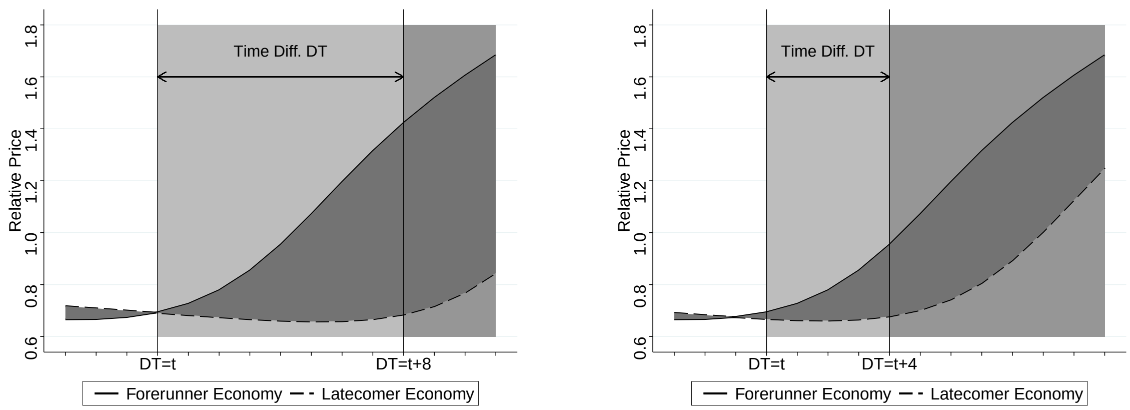
The discussion so far has illustrated that international linkages in the form of trade have non-trivial effects on the development of economies. The dynamics of education, population, and income crucially depend on the timing of opening relative to the timing of the demographic transition in the two economies. The most important conceptual result of this analysis is that the demographic transition not only represents a crucial turning point for the development dynamics of an economy in isolation but also for the development of open economies that interact on a global level. The effects of globalization crucially depend on the timing of the opening in relation to the onset of an economy's demographic transition, as illustrated by the reversal of effects depending on whether the opening occurred before or after the onset of the demographic transition of the forerunner economy. These effects are long-lived.

Beyond these qualitative results, the analysis also delivers several empirical implications that are useful for rationalizing development patterns observed during different phases of economic globalization. In particular, the implications of the model for rationalizing the empirical findings from a demography-extended gravity model in Section 1.2 are directly testable. The remainder of this section is devoted to exploring the empirical implications, focusing on the relevance of the timing of the demographic transition for the patterns of trade. The key prediction of the global long-run growth model to be tested in the following is

[17] See Appendix Figures A.15–A.17.

[18] See Appendix Figures A.18–A.20.

whether the time difference between the demographic transitions in the trading economies matters for trade volumes. This prediction contributes a novel aspect to the empirical literature on gravity equations.



(a) Transition of Latecomer at $t+8$

(b) Transition of Latecomer at $t+4$

Figure 1.3: *Time Variation in Demographic Transitions and Scope for Trade*

Figure 1.3 illustrates the empirical prediction by plotting the development of the relative prices in the forerunner economy and in the latecomer economy under autarky with varying time differences between their demographic transitions. Figure 1.3(a) presents the same constellation as in the baseline analysis with the forerunner economy undergoing the demographic transition in period t and the latecomer economy in period $t+8$. In comparison, Figure 1.3(b) shows the development of the relative prices for the country pair in which the forerunner economy undergoes the demographic transition in period t and the latecomer economy already in period $t+4$. The difference between the relative prices, which is indicated by the dark grey area, reflects the scope for trade. Before the onset of the demographic transition in the forerunner economy, depicted as period t, the scope for trade is limited for both country pairs. However, once the forerunner enters the economic and demographic transition, the potential gains from trade increase rapidly and become larger with the time difference in the demographic transitions. Hence, the figure illustrates that the gains from trade depend on the length of the delay in the demographic transition experienced by the latecomer economy. This implies that differences in demographic development, as reflected by the relative delay in the timing of their demographic transition, are predicted to affect the trade volumes between trading economies.

The analysis of the comparative dynamics of trade volumes for alternative time differences in the demographic transitions illustrates different aspects of this prediction: the absolute and relative distance in demographic development of the forerunner and latecomer economy as well as the role of opening before or after the demographic transition in the latecomer economy.

First, consider the implications of the relative demographic development of trading partners for trade volumes. We analyze a situation in which the forerunner economy undergoes the demographic transition in period t and the latecomer economy in periods $t+\tau$, with $\tau = 1, 2, 3$, and consider the consequences of opening to trade before and after the corresponding onset of the demographic transition in the latecomer economy. The trade volumes in these post-/pre-transitional constellations are illustrated in Figure 1.4(a). The initial and subsequent trade volumes are the largest for the country pair with the latest timing of the demographic transition in the latecomer economy, $t+3$, as illustrated by the dot-dashed line.[19] This suggests that the trade volumes between the two economies are larger the greater the distance in the timing of their demographic transitions. Moreover, an opening just one generation after the demographic transition in the latecomer economy such that both economies are post-demographic transition has a positive effect on trade volumes. This can be seen by comparing Figure 1.4(a) with the trade volumes in Figure 1.4(b), which shows that the effects are quantitatively larger. This implies that trade volumes are larger in a constellation of post-/post-transitional trading partners than in a post-/pre-transition constellation as demonstrated by the empirical results in Section 1.2. These findings are qualitatively unaffected by variations in trade costs.[20]

Second, the comparison of the trade volumes in Figures 1.4(a) and 1.4(b) reveals the role

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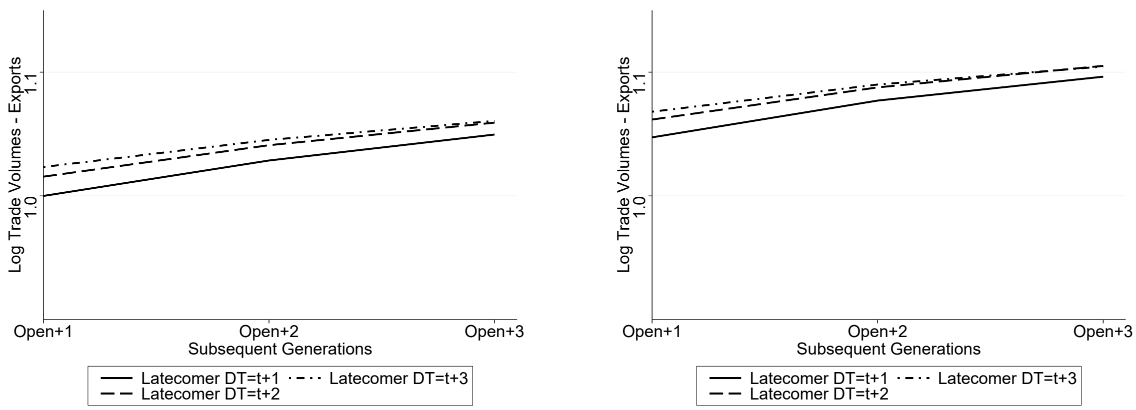
[19]The trade volumes are normalized to the initial trade volume after opening before the demographic transition in the latecomer economy at $t+1$.

[20]See Appendix Figures A.21 and A.22.

of the timing of the opening. While Figure 1.4(a) plots the comparative dynamics in trade volumes in response to trade opening before the onset of the demographic transition in the latecomer economy, Figure 1.4(b) shows the corresponding effects on trade volumes in response to an opening to trade after the onset of the demographic transition. The trade volumes are larger in Figure 1.4(b) than in Figure 1.4(a). Hence, trade volumes of the same country pairs depend crucially on the timing of openness with respect to the demographic development next to the distance in the timing of the demographic transitions in the two economies.



(a) Opening Before Demographic Transition

(b) Opening After Demographic Transition

Figure 1.4: *Opening Pre-/Post-Demographic Transition and Trade Volumes*

The analysis provides two predictions. First, trade volumes behave monotonically to the difference in the timing of the demographic transition of the two trading economies irrespective of whether the exact timing of trade opening occurs shortly before or after the demographic transition of the latecomer economy. The trade volumes become larger with the time difference in the demographic transitions. Second, trade volumes are larger in post-/post-transitional trading partner constellations.

These predictions can be tested by estimating a version of the standard gravity equation extended to demography, similar to the empirical analyses of determinants of bilateral trade volumes as in Section 1.2. To do so, we use the baseline version of the model with pairs of forerunner and latecomer economies, with the forerunner undergoing the demographic transition in autarky in period t and the latecomers undergoing their transition in periods $t + \tau$ with $\tau = 0, 1, 2, 3$, and an observation window covering the period $t - 1$ until $t + 6$;[21] the opening scenarios cover the periods $t - 2$ until $t + 3$ and construct the simulated data for three different levels of the trade cost (ξ).[22] The dependent variable is given by the natural log of exports of each economy in a country pair.

Table 1.4: *Gravity Equation Estimates Based on Model Data - Baseline*

	(1) OLS Trade	(2) OLS Trade	(3) OLS Trade	(4) PPML Trade	(5) PPML Trade	(6) PPML Trade
Log Time Diff. DT	13.866***	13.866***	18.542***	0.836***	0.836***	1.176***
	(0.532)	(0.518)	(2.169)	(0.043)	(0.042)	(0.291)
Time Trend		3.789***	3.789***		0.211***	0.208***
		(0.155)	(0.142)		(0.011)	(0.010)
Fixed Effects			✓			✓
Observations	1,152	1,152	1,152	1,152	1,152	862
R^2	0.269	0.494	0.704	0.222	0.426	0.467

Notes: Results from estimations of gravity equations by Ordinary Least Squares (OLS) and Poisson Pseudo Maximum Likelihood (PPML) based on simulated data. The dependent variable is the natural log of trade exports of each country in a country pair. Specifications include a constant and control for the log time difference in the timing of the demographic transition ("Log Time Diff. DT"), as well as a linear time trend and country fixed effects where indicated. Observations in column 6 are reduced to prevent overfitting of observations with zero trade flow. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 1.4 shows the estimation results for the role of the relative timing of the demographic transition for trade volumes using the simulated data. The estimation model reflects the same estimation setting as the one applied to the empirical data in Table 1.1. The results show that the timing of the demographic transition, which is the only source of cross-country heterogeneity in the simulated data, plays a significant role in trade flows.

[21] The inclusion of country pairs with the same timing of the take-off and thereby no trade is motivated by the fact of zero trade flows in the empirical data (with 46.64% of the observed trade flows). Note, the maximum length of adulthood in our simulated model is 20. A maximum time difference of three generations in the timing of the demographic transition in the latecomer economy corresponds to 60. A time difference of 20 (60) years or less in the timing of the demographic transition covers 49.61% (81.83%) of the observations in the empirical data.

[22] In total this gives $4 \cdot 8 \cdot 6 \cdot 3 \cdot 2 = 1152$ country-pair observations for bilateral trade volumes.

As in the empirical estimates, a greater difference in the demographic transition between forerunner and latecomer economies implies more trade. Moreover, with the timing of the demographic transition in the forerunner economy being fixed, the positive time trend indicates that trade volumes are higher the more time has passed since the forerunner economy has undergone the transition, everything else equal.

Table 1.5: *Gravity Equation Estimates Based on Model Data - Extension*

	(1) PPML Trade	(2) PPML Trade	(3) PPML Trade	(4) PPML Trade	(5) PPML Trade	(6) PPML Trade
Log Time Diff. DT	0.836***		0.357***		0.885***	1.321***
	(0.043)		(0.132)		(0.043)	(0.290)
Post-Pre Relation		3.540***	3.278***	3.540***	2.962***	3.111***
		(0.284)	(0.336)	(0.284)	(0.284)	(0.303)
Post-Post Relation				3.205***	3.323***	3.240***
				(0.286)	(0.281)	(0.286)
Fixed Effects						✓
Observations	1,152	548	548	1,152	1,152	862
R^2	0.222	0.918	0.910	0.498	0.717	0.932

Notes: Results from estimations of gravity equations by Poisson Pseudo Maximum Likelihood (PPML) based on simulated data. The dependent variable is the natural log of trade exports of each country in a country pair. Specifications include a constant and control for the log time difference in the timing of the demographic transition ("Log Time Diff. DT"), dummies for dyadic constellations of a post-transitional and a pre-transitional country ("Post-Pre Relation") or a post-transitional and a post-transitional country ("Post-Post Relation"), and country fixed effects where indicated. Observations in column 6 are reduced to prevent overfitting of observations with zero trade flow. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 1.5 shows the results for the extended specification that accounts for the demographic status of the two trading economies, in addition to the time distance in demographic development. This setting corresponds to the one underlying the results in Table 1.2. The estimates illustrate that, relative to a dyad of two pre-transitional economies, trade volumes are larger if one economy has already undergone the transition (Post-Pre Relation). This difference is robust to controlling for the time difference and is even amplified if the second economy is also post-transition (Post-Post Relation). Overall, the patterns presented in Table

1.4 and in Table 1.5 are qualitatively and quantitatively similar to the empirical results in Section 1.2. Taken together, our model is able to rationalize the empirical findings of the demography extended gravity equation.

1.6 Concluding Remarks

This paper investigates long-run development from a global perspective and studies the interplay between long-run growth dynamics, trade, and comparative development. We make two contributions. On the empirical side, our analysis documents the relevance of demographic development for international trade flows above and beyond the usual determinants in an empirical gravity framework that has been extended for demographic aspects. On the theoretical side, we develop a two-economy model that allows analyzing the consequences of globalization on the development dynamics of forerunner and latecomer countries and that can rationalize the empirical findings.

The results reveal an important role in both the timing of the opening to trade and in the timing of the demographic transition in a country. The results show that trade affects the dynamic evolution of education, population, and income in different ways in forerunner and latecomer economies. Whether the opening occurs before or after the onset of the demographic transition in the forerunner economy plays a crucial role in the effects of trade. Despite immediate positive effects, the dynamic implications of opening depend on the stage of development at which opening occurs. An early opening to international trade has a positive effect in the short run, but the latecomer economy experiences negative effects in the long run due to the shift in comparative advantage that leads to a slowdown in demographic and economic development. The model predictions about the conditionality of trade volumes on absolute and relative demographic development are consistent with novel evidence from the estimation of demography-extended gravity equations.

While our long-run growth model is consistent with the empirical results, one might think of alternative models that can rationalize the importance of demographic development for gauging the consequences of trade liberalization. Nevertheless, with its analytical tractability and reliance on interior solutions, the model is transparent and constitutes a useful starting point that is rooted in existing long-run growth models. Moreover, the model can be readily extended to account for the effects of globalization in different dimensions – like the international diffusion of technology and health – to investigate the generality and robustness of the main results.[23] The analysis of these model extensions documents that technology diffusion is beneficial for both economies in the short run. However, while technology diffusion results in the acceleration of economic and demographic transitions by fostering the accumulation of human capital, it can also unfold a negative effect on incomes per capita in the long run due to its implications for population dynamics. Similarly, health diffusion has positive effects on the development of latecomer countries by speeding up the process of economic and demographic development, but it also leads to an intermediate increase in fertility and a related acceleration in population growth.

The results of the analysis suggest that a better understanding of the effects of globalization, its channels, and long-run impacts are essential for policies intended to reduce global inequality. The most important insight of this paper is that the effects of globalization crucially depend on the absolute and relative level of demographic development at which a country experiences globalization. The results illustrate this conditionality by documenting that accounting for the timing of the opening in relation to the onset of the demographic transition in interacting economies is a crucial determinant of the subsequent development path. This is a factor that might help explain global divergence that has been largely neglected in the existing literature.

The model has been kept deliberately simple to focus attention on the interdependence of demographic development and globalization, and on the relevance of the timing for the consequences of globalization. A promising avenue for future work is to extend the analysis to allow for richer and more realistic modeling of some aspects that the model presented here abstracted from for reasons of tractability and transparency. For instance, while the analysis here focused on international trade, the results of the extensions suggest that the

[23] See Appendix A.5 for details.

main findings also emerge for alternative channels of international interactions, such as the diffusion of technology or health. A more realistic model might incorporate interactions between trade, technology diffusion, and health spillovers. This would account for, e.g., trade-related changes in longevity that are related to the spread of infectious diseases or the health improvements related to access to more diversified food and consumption goods. Likewise, a richer model might explicitly account for migration. Finally, the model here might serve as a starting point for the development of a quantitative model that allows for devising the optimal mixture and timing of policies aimed at opening up for developing economies in order to close the gap to the Western forerunners. Most likely, this will include the facilitation of technology diffusion and health diffusion relatively early on, but a more conservative timing of opening to trade. Another avenue for future research concerns the analysis of political economy implications of the results, for instance in the context of international trade agreements.

Chapter 2

Industrialization and Demography – Evidence from Prussia

2.1 Introduction

The unified growth theory captures the long-run economic and demographic development throughout human history in a single framework. According to this theory, the transition towards sustained economic growth is associated with a rise in the demand for skilled human capital and an increase in population growth. The emergence of human capital as a production factor is modeled by either the arrival of a new industrial, skill-intensive sector in the economy (see e.g. Doepke, 2004; Galor and Mountford, 2008) or by an increase in the skill intensity within a sector (see e.g. Cervellati and Sunde, 2015b). The transition towards an industrial economy offsets the decreasing returns to labor with production technologies permitting sustained income and population growth, which potentially generates a large labor force.[1] Thereby, population structure could play a role in the transition to industrialization as working-age laborers are particularly relevant for employment in the new industrial sector. However, the importance of population structure for industrialization

[1]The literature on unified growth theories originated by Galor and Weil (2000) includes Galor and Moav (2002, 2004), Hansen and Prescott (2002), Lagerlöf (2006), and Strulik and Weisdorf (2008), among others. Galor (2005, 2011) provides a comprehensive overview of the literature.

has so far received limited attention.

This paper explores the relationship between the population structure and the process of industrialization in the historical context of Prussia. It addresses the question of whether a relatively larger supply of working-age laborers facilitates industrialization. The basic research idea is that working-age individuals are required to implement and establish industrial technologies in an economy despite their successful adoption. In a closely related study, Becker *et al.* (2011) show the importance of education in the industrialization process in Prussia over the 19th century. They find that education has a significantly positive effect on industries characterized by disruptive technological change stressing the role of technology adoption.[2] The effect to be studied is thus complementary to the importance of human capital and can be interpreted as a demographic dividend emphasizing the importance of the age structure.[3]

Using a micro-regional panel data set of 323 Prussian counties in the 19th century, this paper empirically analyses the effect of the young dependency ratio, which captures the relative size of the potential labor force, on industrialization in Prussia. Industrialization on the county level is measured by factory employment to total population in 1849 and by manufacturing employment to total population in 1882, which both describe the historical industrialization process in Prussia with its two phases.

Importantly, the historical data includes young dependency ratios in 1816 before the onset of the Industrial Revolution in Prussia. The pre-industrial young dependency ratios allow me to address the issue of reverse causality between population structure and industrialization with an instrumental variable (IV) approach. Variations in the pre-industrial

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[2]The role of technology adoption in the context of industrialization in France has been recently studied by Franck and Galor (2021). They find that regions that have industrialized more intensively by adopting more steam engines experience income per capita growth in subsequent decades, but experience an adverse effect on income per capita by the turn of the 21st century. For more historical background on the industrialization process in France see Crouzet (2003) and Squicciarini and Voigtländer (2015).

[3]The complementarity between human capital and age structure for economic growth has been recently discussed in the literature by Cuaresma *et al.* (2014), Lutz *et al.* (2019), and Kotschy *et al.* (2020). While the dispute is about the impact of both factors on total economic growth after the sustained decline in fertility rates in the context of the demographic transition, this paper addresses the influences of both factors on the economic structure before the demographic transition.

young dependency ratio —defined as the number of individuals below age 15 relative to the county's population over 15 and under 60 years of age— created by the Napoleonic war and the exposure of agricultural food supply to weather conditions allow me to use the young dependency ratio in 1816 as an instrument for the young dependency ratios during the two phases of industrialization. The instrument is not affected by potential industrial labor demands influencing the population structure and thus isolates the part of variation that is not simultaneously determined by industrialization. The pre-demographic transition environment allows reliable predictions of the young dependency ratios in 1849 and 1882, while the young individuals in these years have not been alive in 1816. Further, the pre-industrial young dependency ratio is not related to the proto-industrial employment shares before the onset of the Industrial Revolution as shown in a falsification exercise.

The IV strategy estimates the causal effect of the young dependency ratio on industrialization in Prussia. The main finding is that a smaller young dependency ratio significantly increases the industrial employment shares stemming from the textile industry and industries outside textile and metal. The result is robust to a set of potentially confounding factors like education, geography, pre-industrial characteristics, religion, migration, regional effects in the provinces of Prussia, and initial conditions. The result is also confirmed when using the pre-industrial young population share as an alternative instrument as well as using the industrial employment share in the employed labor force and the share of women in the industry as alternative dependent variables.

The findings of the cross-sectional analysis are confirmed by panel estimates with county and period fixed effects exploiting the panel data structure. Using lagged young dependency ratios outside the years 1849 and 1882 as instruments, the qualitatively stable results alleviate concerns that the results are driven by pre-existing unobserved heterogeneity across counties or by a time trend.

The complementarity between education and population structure for industrialization is analyzed by using the pre-industrial enrollment rate as an additional instrument for education as in Becker *et al.* (2011). The results show that it is crucial to take into account sector-specific demands with respect to labor and human capital once making statements about the relative importance of both factors. While a smaller young dependency ratio is significantly related to employment share in the textile industry and to a less extent to the employment share outside metal and textile, education is significantly positively related to the latter and the metal industry. The results are consistent with Becker *et al.* (2011).

The research further explores the channel through which a smaller young dependency ratio has a positive effect on industrialization by mechanically providing a larger labor force above age 15. The quantity-quality trade-off responsible for triggering the demographic transition (see Becker *et al.*, 2010, 2012) cannot have shifted the population distribution towards individuals of working ages by reducing the fertility rates since the fertility rates, the marriage rate, and the age at marriage remained stable until the end of the 19th century. Drawing on new digitized, historical data reveals that the young dependency ratio became smaller over time due to a preceding mortality transition characterized by an increase in life expectancy at intermediate ages following a rectangularization process. The mortality transition preceding the fertility transition with its implication for the structural change in the economy is an overlooked mechanism in the literature.[4]

The economy of Prussia provides an ideal set-up for the empirical analysis for multiple reasons. First, the micro-regional analysis reduces concerns that may arise in a cross-country analysis such that fundamental differences in culture and geography affect the population and economic structure. Second, the historical data encompassing population, factory, and occupational data are of high quality (see Galloway *et al.*, 1994) and span over a long time horizon which is essential for analyzing demographic effects related to the population structure. Third, the Industrial Revolution in the 19th century marks the core of structural change in an economy. Finally, the analysis is performed in a stable demographic

[4]The importance of mortality reduction on economic growth has been studied by de la Croix and Licandro (1999), Boucekkine *et al.* (2002, 2003), Kalemli-Ozcan (2002, 2003), and in the context of unified growth theories by Cervellati and Sunde (2005, 2015b), Lagerlöf (2003), and Weisdorf (2004). Moreover, the implications of increases in longevity on the population structure and in turn growth have been analyzed by Li *et al.* (2007) and Cervellati *et al.* (2017). However, none of these listed studies have specifically analyzed the implications of differential mortality reductions and the associated changes in the age structure on the structure of the economy.

environment characterized by high mortality and fertility rates. The structural break of the demographic environment with the onset of the demographic transition implied a substantial and permanent reduction in fertility rates that occurred after 1882. Therefore, the studied effect can be analyzed and interpreted as a *plain* demographic dividend.[5]

The remainder of the paper is structured as follows. Section 2.2 provides the economic and demographic background of Prussia in the 19th century. Section 2.3 explains the identification strategy, the empirical model, and the data. Section 2.4 reports the estimation results. Section 2.5 discusses channels and documents the mortality transition. Section 2.6 concludes.

2.2 Historical Background

2.2.1 Industrialization in Prussia

Before the onset of the Industrial Revolution in Prussia, institutional reforms were needed to break up the absolute and feudal social structures and to enable changes in the economic structure. First, Tilly (1996) states that the institutional reforms began in Prussia after its military defeat at Jena in 1806 with the Stein-Hardenberg reforms, which constituted a crucial step forward in industrialization. The abolishment of serfdom, the introduction of land tenure, occupational choice freedom, and business establishment were some of many relevant institutional reforms (see Becker *et al.*, 2011; Pierenkemper and Tilly, 2004). Second, the foundation of the Prussian customs union in 1818 eliminated internal tariffs and fostered the economic integration of Prussia's regions. German states joined the customs union

[5]The concept of the demographic dividend refers to the economic growth potential as a result of a shift in the population's age structure created by the demographic transition (see Bloom *et al.*, 2003). The decline in fertility rates reduces the size of the born cohorts such that the youth dependency ratio is reduced and the working-age population share increases over time. The large share of the working-age population provides the potential benefit for economic development created by the demographic transition. Bloom and Williamson (1998) and Bloom *et al.* (2000) empirically verify the demographic dividend in the context of East Asia. In particular, Bloom and Williamson (1998) show that a shift in the population's age structure accounts for one-third of the observed economic growth in East Asia from 1965 to 1990. In addition, Bloom *et al.* (2009) find that a decline in fertility rates increases female labor force participation, which may have substantially contributed to the economic development in East Asia. Still, the concept of the demographic dividend has not been studied even before the demographic transition with the associated fertility decline.

leading to further commercial expansion ending up in the establishment of the Zollverein in 1834. The establishment together with the Stein-Hardenberg reforms created the institutional framework for the upcoming industrialization process in Prussia (Tilly, 1996, p. 102).

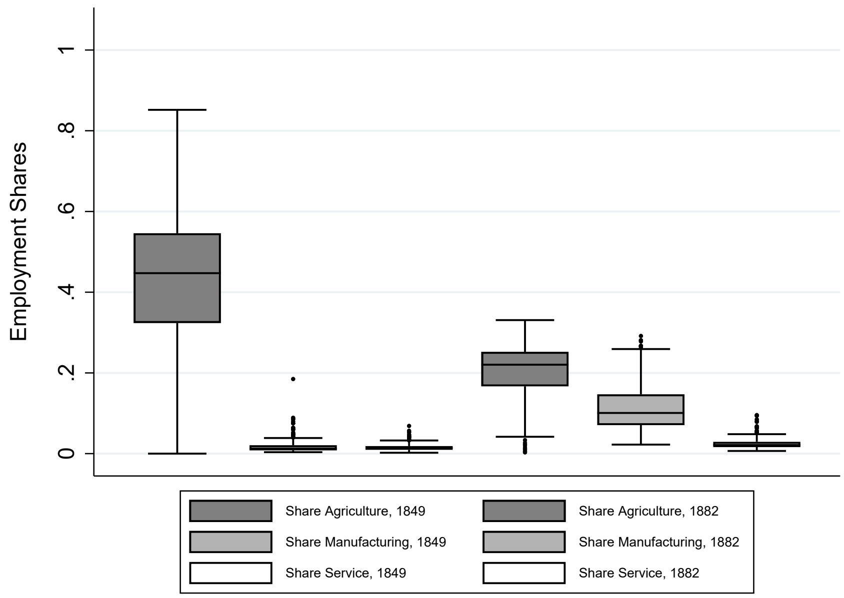
Historical evidence suggests that the onset of the Industrial Revolution in Prussia was around the mid-1830s (see Hoffmann, 1963; Tilly, 1996). The industrialization process over the 19th century can thereby be divided into two phases. The first phase took place between 1835 and 1850 and the second phase in the second half of the 19th century (Becker *et al.*, 2011, p. 98).[6] The second phase is different in its character since new industry sectors like the chemical and electronic industries emerged which were autonomously developed and had not been exclusively adopted from abroad (see Hahn, 2005; Becker *et al.*, 2011).[7]

Empirical evidence supports the dating and the two phases of industrialization in Prussia. The Prussian Statistical Office, founded in 1805, conducted its first full-scale census in 1816 at the county level. It does not record any industrial employment as in subsequent censuses in 1849 with factory employment and in 1882 with manufacturing employment. The entire economic structure in both years is illustrated by the distributions of employment shares in all three sectors relative to a county's total population in Figure 2.1(a).[8] The shift of the distributions of employment shares in agriculture and in manufacturing indicates the declining importance of the agriculture sector and the simultaneous rise of the industrial sector to become an economy-wide sector at the end of the 19th century. In particular, the employment shares in the textile industry increased (on average) over time such that its relative importance within the industrial sector became larger, as illustrated in Figure 2.1(b).

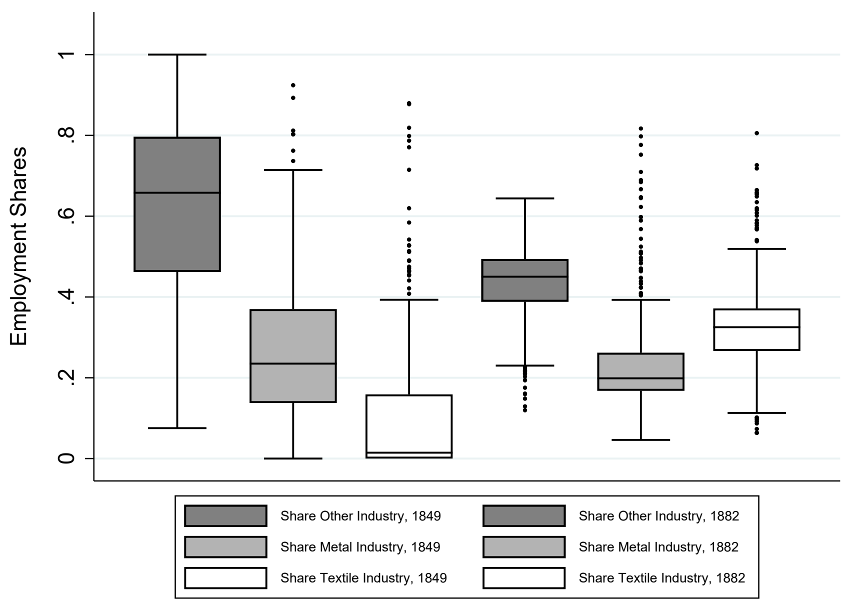
[6]Kiesewetter (2004) argues that the Industrial Revolution was a regional phenomenon and its paces might have been different without the territorial order of Europe after the Congress of Vienna in 1815. Therefore, he states that the beginning of the Industrial Revolution may be dated at the earliest in 1815.

[7]For historical background on the industrialization process in European countries and in the US see Teich and Porter (1996).

[8]The definition of the service sector is directly taken from the 1882 occupation census provided by the Prussian Statistical Office (see Königliches Statistisches Bureau, 1884) and applied to the employment counts in 1849 and in 1882 provided by Becker *et al.* (2014). Agricultural employment shares are measured by persons engaged in agriculture as their main occupation relative to the total population.



(a) All Sectors



(b) Industrial Composition

Figure 2.1: *Economic Structure in Prussia - 1849 and 1882*

Data sources: Becker et al. (2011), Becker et al. (2014), and Galloway (2007).

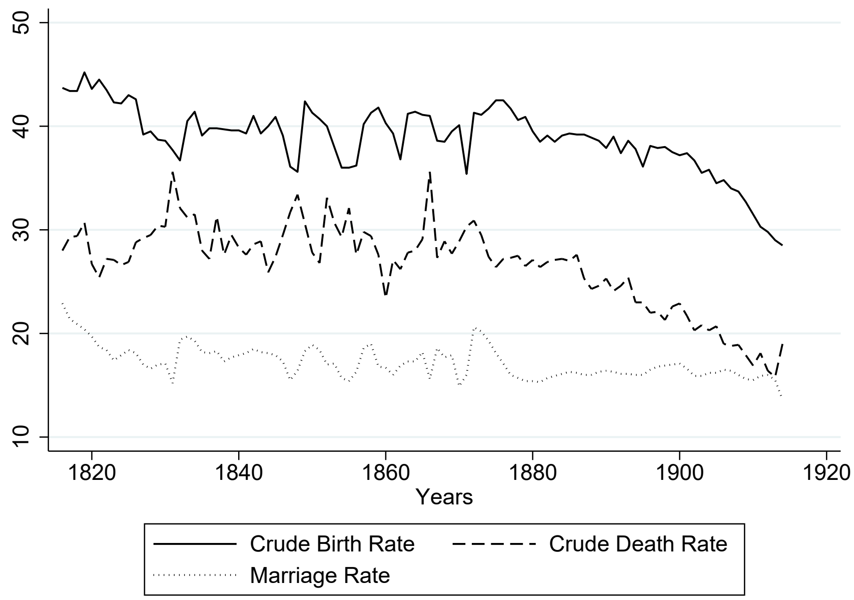


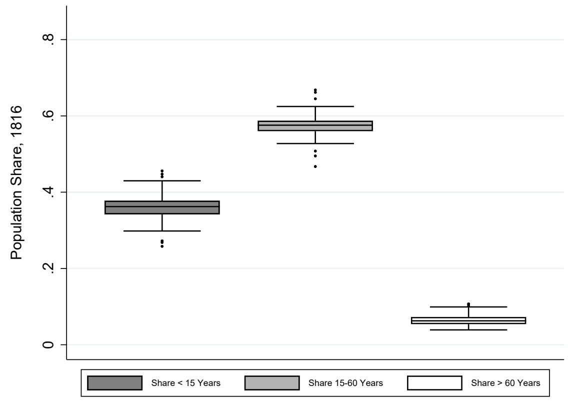
Figure 2.2: *Demographic Development in Prussia*

Data source: Hohorst (1978).

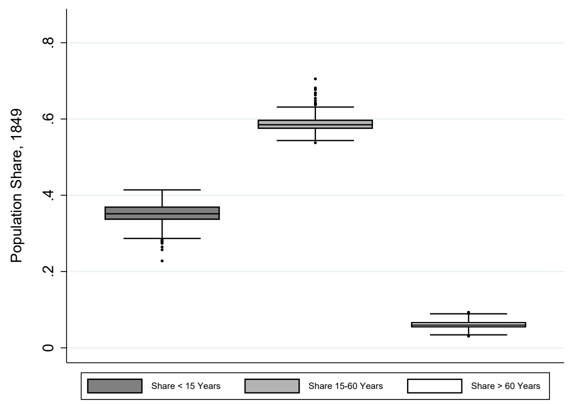
2.2.2 Demographic Environment

The demographic environment in Prussia until the end of the 19th century is characterized by a pre-demographic transition environment with a high crude birth and death rate (per thousand population) as shown in Figure 2.2. The two rates fluctuate around a stable level until they substantially decline towards the end of the century with the onset of the demographic transition (Galloway *et al.*, 1994), while the marriage rate (per thousand population) remains constant. The consistently higher crude birth rate consequently has resulted in a population increase from 10.2 million in 1816 to 21.3 million in 1882 (within the territorial boundaries in 1816). Despite the substantial increase in population, the prevailing demographic environment implied that the overall population structure mainly remained unchanged over time.

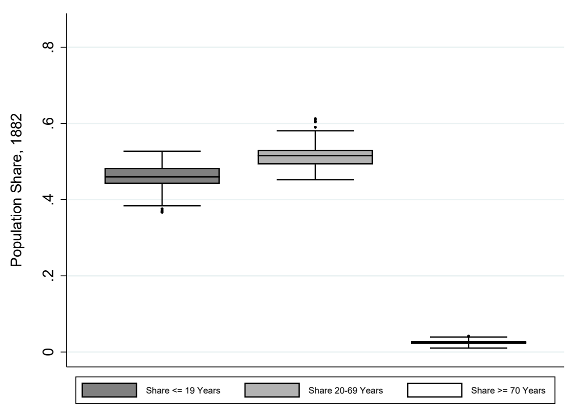
Figure 2.3 illustrates the population shares across all counties in 1816, 1849, and 1882 (with slightly different age group categories in 1882 due to data availability). In the three



(a) 1816



(b) 1849



(c) 1882

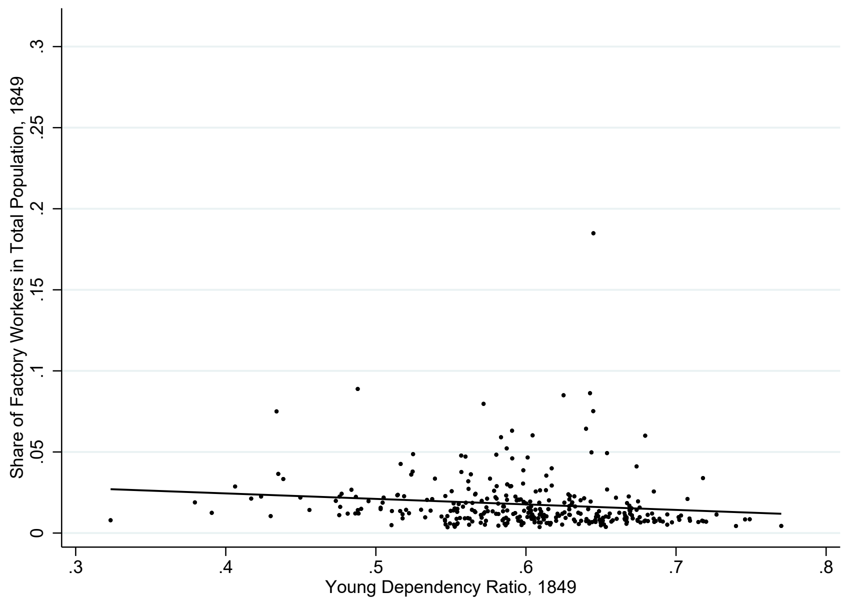
Figure 2.3: *Population Structure in Prussia - 1816, 1849, and 1882*

Data sources: Becker et al. (2014) and Galloway (2007).

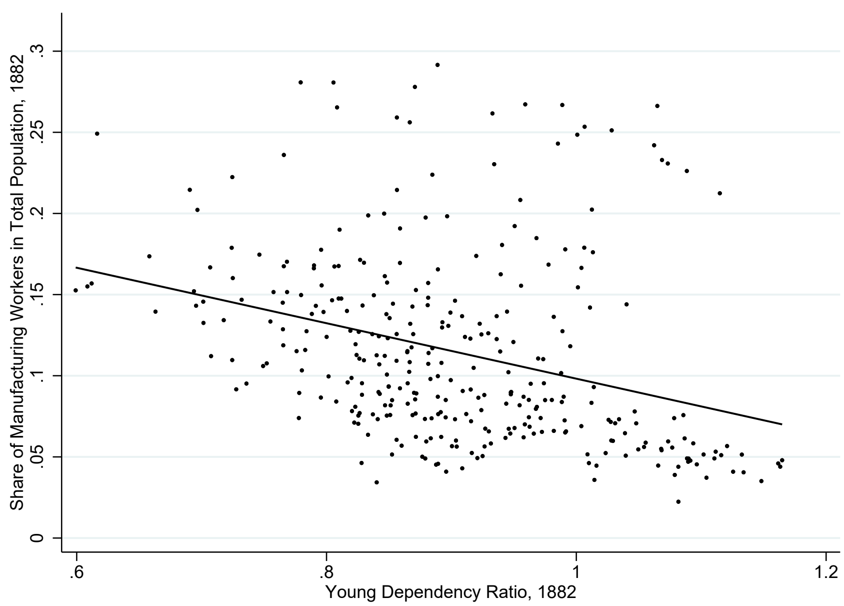
observed years, the largest age group is the population group of prime working ages followed by the young dependency ratio and the oldest population share. The population of prime working ages might be of primary importance for the process of industrialization in a county since enough labor needs to be supplied in order to implement and establish the new industrial sector. Thereby, the population structure with respect to the relationship between the young and working-age population might be crucial. A larger young population relative to the working-age population means a relatively smaller labor force, while a smaller young population relative to the working-age population means a larger labor force in a county. This mechanism is captured by the young dependency ratio.

Figure 2.4 shows the relationship between the industrialization process and the young dependency ratios in 1849 and in 1882. The figure presents a clear and negative relationship between industrialization and the young dependency ratios. The hypothesis that can be derived from the observed relationship is that a smaller young dependency ratio results in a higher industrialization level in both phases since a larger labor force might facilitate industrialization. The hypothesis is consistent with the concept of the demographic dividend in the sense that a relatively higher working population share represents a relatively larger workforce with the potential for higher economic growth (see Bloom *et al.*, 2003). Note, the concept of demographic dividend is primarily related to the age structure as a result of the demographic transition, while the demographic environment in Prussia is pre-transitional in the analysis. Therefore, the hypothesis aims to estimate the effect of a *plain* demographic dividend.

The observed relationship in Figure 2.4 might reflect the reverse causality from the process of industrialization to the young dependency ratio through labor demand rather than the effect of the young dependency ratio on industrialization through labor supply. The next section explains how the empirical strategy uses variation in the population structure *before* the Industrial Revolution in Prussia to identify the causal effect of the young dependency ratio on industrialization.



(a) 1849



(b) 1882

Figure 2.4: *Industrialization and Population Structure*

Data sources: Becker et al. (2011), Becker et al. (2014), and Galloway (2007).

2.3 Empirical Framework and Data

2.3.1 Identification Strategy

The observed relationship between industrialization and the young dependency ratio does not necessarily reflect the causal effect of the young dependency ratio on industrialization through a relatively larger supply of the labor force. It might indicate the impact of industrialization on the population structure through increased labor demand as well as the impact of omitted factors that are related to industrialization and the demographic development such as education, geography, culture, and institutions.

To isolate variation in the young dependency ratio that is not simultaneously affected by industrialization, the identification strategy exploits the variation in the young dependency ratio in 1816 before the Industrial Revolution and thereby not being affected by the economic conditions in the future. The variation in the pre-industrial young dependency ratio is used as an instrument for the young dependency ratios in both industrialization phases, in 1849 and 1882. The identification strategy is inspired by Becker *et al.* (2011) and Kotschy and Sunde (2018). The pre-industrial population shares (underlying the young dependency ratio) are valuable predictors for the corresponding population shares in the future given a stable demographic environment, as is the case in the period of analysis. The exclusion restriction of the instrument stipulates that the pre-industrial young dependency ratio affects industrialization only through the young dependency ratio in each industrialization phase. Due to the temporal shift, the age groups in 1816 are unaffected by the upcoming industrialization process. In addition, the instrument is a composite measure in the sense that the dependency ratio is the result of individuals being born in 1801 or later relative to individuals being born in 1757 or later with both groups exposed to different age-specific death rates until 1816. Thus, the fertility and age-specific mortality rates of even earlier time periods than 1816 contribute to the observed young dependency ratio in 1816 providing further support for not being influenced by the Industrial Revolution.

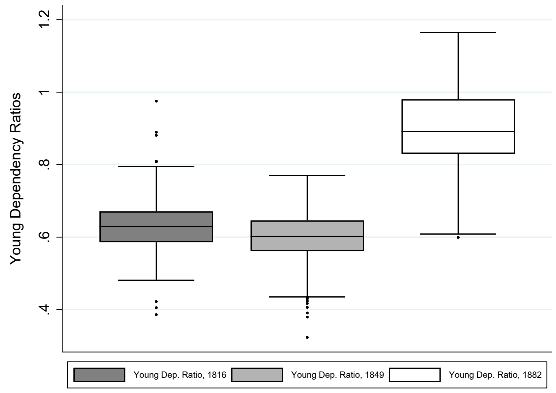
Instrument validity requires that the pre-industrial young dependency ratio is highly correlated with the corresponding ratios in both industrialization phases. The absence of a structural change in the demographic environment until the end of the 19th century provides stable and predictable population dynamics with a high correlation of age-group sizes over time. Figure 2.5(a) shows the distribution of young dependency ratios across counties over time. The distributions are similar concerning the distribution statistics standard deviation and quartile range.[9] Due to data availability, the youth dependency ratio in 1882 is defined as persons younger than or equal to 19 years of age relative to the population over 20 and under 70 years of age, so the distribution contains larger values and consequently a higher mean and median. Despite the stability of distributions over time, there is considerable underlying variation in the distributions over time. The ten counties with the highest young dependency ratios in the three observed years are illustrated in Figure 2.5(b). There are two initial counties - Pless and Saarbrücken - that still are among the counties with the highest young dependency ratio in 1849 with minor changes regarding the rank but they are not among the top counties in 1882.[10] Counties with a high rank in 1849 and 1882 are Flatow, Wongrowitz, and Schubin. The counties with the lowest young dependency ratios are depicted in Figure 2.5(c). The four counties with a low share in all three years are mainly urban counties with Löwenberg, Münster, Berlin, and Danzig. All other counties in 1816 with a low young dependency ratio cannot be found along the low ranks in 1849 and 1882, except for Breslau.[11] In general, the stability of the demographic environment and the variation of the young dependency ratios among counties over time ensures the instrument validity which is ultimately assessed by the F-statistic.

The initial variation in the pre-industrial young dependency ratio is partly due to exogenous influences to which the demographic regime has been subjected in the pre-industrial period. At this time, annual fluctuations in the agricultural food supply were

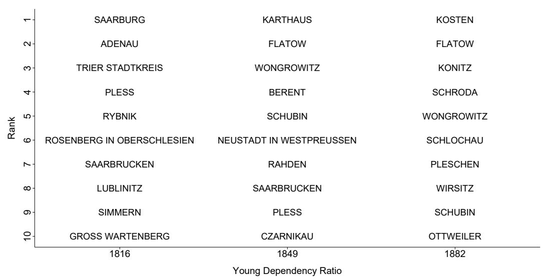
[9]The summary statistics for the young dependency ratios in Figure 2.5(a) can be found in Table 2.1 in Section 2.3.3.

[10]The counties Pless and Rybnik emerged from the same county with the county reform in 1821. The rank in 1816 is uniquely assigned to Pless by the larger total population in 1849.

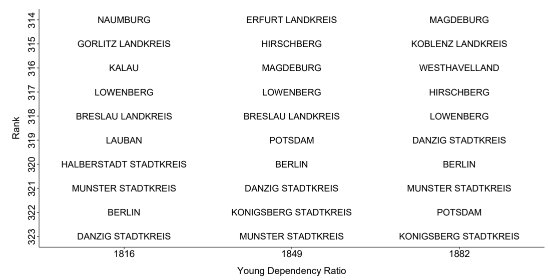
[11]The counties Hirschberg, Magdeburg, Potsdam, and Königsberg are on low ranks in 1849 and 1882.



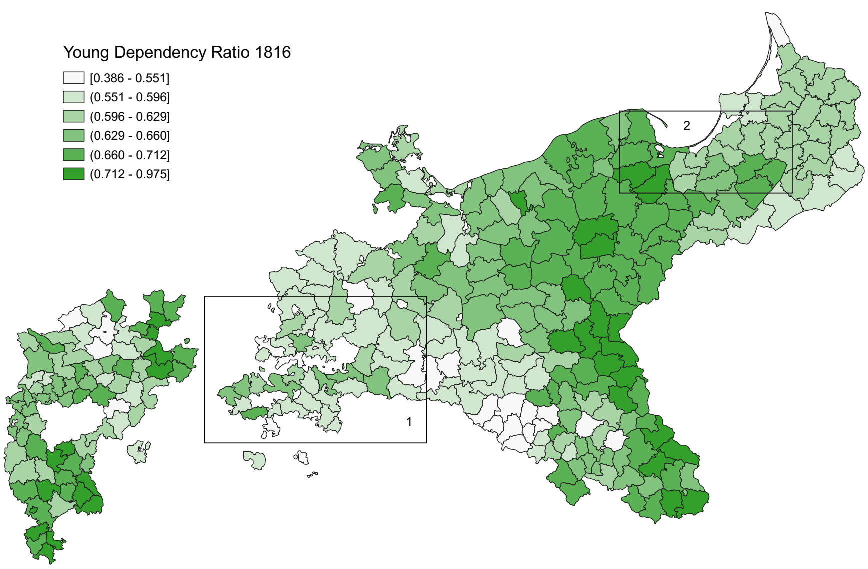
(a) Young Dependency Ratios



(b) Top Ranks



(c) Bottom Ranks



(d) Young Dependency Ratio 1816

Figure 2.5: *Instrumental Variable - Pre-Industrial Young Dependency Ratio*

Data sources: Becker et al. (2014) and Galloway (2007).

subject to meteorological variations that affected harvests (see Galloway, 1988a, 1994). Annual variations in the food supply were captured by variations in the grain price, which was the main determinant of fluctuations in the real wage. The entire population except for landowners suffered from an increase in the grain price which thereby influenced its demographic response. Galloway (1988a, 1994) analyzes how weather-induced variations in the grain price influenced birth and death rates in pre-industrial countries, including Prussia. An increase in the grain price was associated with declining fertility (short-term preventive check) and with increasing mortality (short-term positive check). In addition, temperature changes themselves - independent of the economic environment - affected demographic behavior. Hot summers and cold winters reduced fertility and increased mortality (short-term temperature check), particularly among the very young (Galloway, 1994, p. 11). Food shortages caused by cold winters for instance in the years 1812-1816, led to malnutrition and the associated susceptibility to infectious diseases like measles, smallpox, and pneumonia further augmenting the mortality rate (see Kunitz, 1983; Galloway, 1994). The exposure to all described weather-induced impacts varies by county leading to plausible exogenous variation in the pre-industrial young dependency ratio.

The initial heterogeneity of the young dependency ratio across counties stems also from short-term economic consequences of the Napoleonic war in Prussia during the fourth coalition war and the wars of liberalization. The individual counties were affected by the war in different ways and to different degrees. For instance, the counties in the districts of the province of Saxony (Districts Erfurt and Merseburg) and partly in the province of Brandenburg (District Potsdam) were a central theater of war, marked by rectangle 1 in Figure 2.5(d).[12] The battles of Jena-Auerstadt (1806), Groß-Görschen (1813), Groß-Beeren (1813), Dennewitz (1813) and Leipzig (1813) took place in this region (see Bodart, 1908); with the last one being the largest battle before World War I with around 80-100 000 casualties. Other minor conflicts in this region were the battles in Saalfeld (1806) and in Halle (1806,

[12]The delimiters in Figure 2.5(d) correspond to the tenth, thirtieth, fiftieth, seventieth, and ninetieth percentile of the pre-industrial young dependency ratio in 1816.

1813) as well as the capitulation of Erfurt with 10 000 prisoners of war. While the number of casualties represents only a minor loss in terms of the total population, the region suffered from short-term economic consequences of the war. The recruitment of military personnel withdrew labor from agriculture and slowed down the production of food supply. Moreover, agriculture was detracted from the use of horses and cattle for transportation and supply purposes (Pfister, 2020, p. 16). Draft animals were no longer as readily available, and the supply of organic fertilizer to land and animal protein - important for the physical and cognitive development of children - deteriorated (Pfister, 2020, p. 16, 22). General health was also affected by epidemics, the spread of which was favored by war-related mobility and sieges, such as the spread of typhus during the siege in Danzig 1813 (see Köhler, 1893; Voigtländer and Voth, 2013b; Pfister, 2020). Danzig was already besieged in 1807. Other military conflicts in neighboring counties, which are captured by rectangle 2 in Figure 2.5(d), include the battles of Preußisch-Eylau, Heilsberg, and Friedland in 1807 (see Bodart, 1908). Finally, the war-induced absence of men including war prisoners resulted in unborn children contributing to the initial variation in the young dependency ratio after the Napoleonic war.

All described idiosyncratic factors have contributed to the variation in the young dependency ratio across counties in 1816 by affecting fertility and mortality rates in different ways in previous years. The underlying time dimension for the observed young dependency ratio in 1816 gives the (quasi-) randomly assigned variation in the pre-industrial young dependency ratio.

A threat to the identification strategy would be that the pre-industrial young dependency ratios would already explain proto-industrial employment shares and thereby pick up a pre-existing trend. Table B.6 in the Appendix presents a falsification exercise illustrating the young dependency ratio in 1816 has no predictive power for the proto-industrial employment share. Becker *et al.* (2011) provide the best available proto-industrial employment share, as measured by the employment share in brick-making plants, lime kilns, and glass kilns in total population in 1819. The estimated coefficients for the young dependency ratio in 1816 on the proto-industrial employment share are insignificant and very small irrespective of the inclusion of potentially confounding factors. Hence, the young dependency ratio in 1816 can potentially explain the industrial employment shares in later phases, but not the closest, equivalent share before the onset of the Industrial Revolution in Prussia. The results offer further confirmation using the pre-industrial young dependency ratio as an IV for the subsequent young dependency ratios in the empirical model.

2.3.2 Empirical Model

The hypothesis to be tested is that a smaller young population relative to the working-age population in a Prussian county will provide a relatively larger labor force, facilitating industrialization through labor supply. In other words, a smaller young dependency ratio is expected to have a positive effect on the industrialization process in Prussia in its two phases.

Following Becker *et al.* (2011), the effect of the young dependency ratio on the process of industrialization in Prussia is estimated using Two-Stage-Least squares (2SLS). The second stage is given by

$$IND_t = \alpha_2 + \beta_2 YDR_t + \gamma_2 \mathbf{X}_t^{'} + \delta_2 \mathbf{Z}^{'} + u_2 \tag{2.1}$$

where IND_t denotes the industrial employment share at the two phases $t = \{1849, 1882\}$. YDR_t represents the young dependency ratio and $\mathbf{X}_t^{'}$ is a control vector including education and geographic features. Vector $\mathbf{Z}^{'}$ includes a set of pre-industrial economic characteristics around 1816. u_2 is the error term. The endogenous young dependency ratio, YDR_t, is instrumented by the pre-industrial young dependency ratio, YDR_{1816}. The first stage can be written as

$$YDR_t = \alpha_1 + \beta_1 YDR_{1816} + \gamma_1 \mathbf{X}_t^{'} + \delta_1 \mathbf{Z}^{'} + u_1 \tag{2.2}$$

where $\mathbf{X}_t^{'}$ and $\mathbf{Z}^{'}$ are the same vectors used in the second stage. u_1 is the error term. Standard errors are clustered at a level of 269 independent observations in 1816 due to county border changes after 1816 and data availability. For $t = 1882$, the industrial progress already achieved in 1849, IND_{1849}, can be included in both regression equations as a further control variable in order to estimate the additional effect of the young dependency ratio on industrialization at the end of the 19th century.

In addition to cross-section estimates, the data structure allows for estimating panel models with period and county fixed effects using lagged young dependency ratios as IVs. The panel specification is

$$IND_{it} = \alpha_i + \pi_t + \beta YDR_{it} + \gamma \mathbf{X}_{it}^{'} + \zeta IND_{i,t-1} + u \tag{2.3}$$

where α_i are county fixed effects and π_t are period fixed effects. These fixed effects rule out that the results are driven by an initial, unobserved heterogeneity across counties that is constant over time and by unobserved effects that change over time and are constant across counties. The lagged value of the young dependency ratio as an IV exploits the stable and predictable demographic dynamic in the sense that the relative sizes of the age groups hardly change over time and that it is unaffected by the industrial sector in the future conditional on the lagged industrial progress and county fixed effects (see Kotschy and Sunde, 2018, p. 608). The young dependency ratio in $t = 1849$ is instrumented by the lagged young dependency ratio in 1816, while the young dependency ratio in $t = 1882$ is instrumented with lagged young dependency ratios in 1864, 1867, 1871, and 1875. The IVs exploit the fact that the young individuals during the two phases were (mostly) not alive at the time of the observed young dependency ratio used as IVs and that older individuals in the lagged age groups are no longer in the age groups at the two industrial phases. Note, young individuals that are alive in 1882 and also in the lagged age groups included in the IVs are at most younger than 13 years in 1875 or at least younger than two years in 1864. It is reasonable to argue that their occupational and fertility choice has not been influenced by the future economic environment.

The model specification tests whether counties in which the young dependency ratio in later phases is lower relative to the young dependency ratio they had earlier experience additional industrialization relative to the industrial level they had already achieved earlier (see Becker *et al.*, 2011, p. 102). Hence, using IVs in years approaching 1882, the estimated coefficients should reduce their magnitude (in absolute terms) once converging towards

1882 since the scope for additional industrialization due to a lower young dependency ratio relative to former years is reduced over time.

2.3.3 Data

The main data set for the empirical analysis is the data set provided by Becker *et al.* (2011). It contains a variety of industrial, educational, geographic, and pre-industrial variables in Prussian counties in their 1849 boundaries accounting for boundary changes over time. The original data are obtained from several censuses conducted by the Prussian Statistical Office founded in 1805.[13] Their measurements of industrialization are directly taken from the data set as dependent variables. Industrialization towards the end of the first phase of the Industrial Revolution is defined as employment in factories divided by the total county population in 1849 (Becker *et al.*, 2011). The reported 119 factory types in the factory census allow me to distinguish between metalworking, textile, and other factories except for metal and textile (Becker *et al.*, 2011, p. 103). Industrialization in the second phase is measured by employment in manufacturing divided by the total county population in 1882. The employment share can again be subdivided into metal, textile, and other manufacturing (except textile and metal) shares.

The data by Becker *et al.* (2011) is supplemented with additional data from various sources. The first full-scale census released by the Prussian Statistical Office is the population census in 1816. It provides age-specific population data to calculate the pre-industrial young dependency ratio. The ratio is measured as the population below age 15 as a share of the county's population over 15 and under 60 years of age in 1816. Due to border changes after 1816 in the course of the administrative reform, the 1816 data had to be adjusted to match the 1849 borders. In conjunction with missing age-specific population data in eleven counties of the district in Cologne gives 269 units of observations in 1816 for 323 counties in 1849. The young dependency ratio in 1849 given by Becker *et al.* (2014) is also measured by

[13] Table A1 in Becker *et al.* (2011), p. 122-123, reports the original censuses and detailed variables descriptions. For further information, see the online Appendix of Becker *et al.* (2011). The historical data have been digitized and are provided by the ifo Prussian Economic History Database (Becker *et al.*, 2014).

the number of persons under 15 years of age relative to the population over 15 and under 60 years of age. The young dependency ratios for the years 1882, 1875, 1871, 1867, and 1864 are taken from the Prussian Database by Galloway (2007). In these years, the young dependency ratios are defined as the number of persons under 20 years of age (under 15 years of age in 1864) relative to the population over 20 and under 70 years of age (over 15 and under 65 years of age in 1864; over 20 and under 60 years of age in 1871) in the corresponding year.

The educational and geographic control variables for the first phase are (i) average years of schooling in the working age population, (ii) population density, and (iii) county area. The same applies to the second phase except for adult literacy instead of years of schooling. The pre-industrial characteristics in the regression analysis are: (i) share of population living in cities, (ii) looms per capita, (iii) steam engines in mining per capita, (iv) number of sheep per capita, (v) share of farm laborers in total population, (vi) public building per capita, (vii) paved streets, and (viii) tonnage of transport ships per capita (Becker *et al.*, 2011).

Table 2.1 reports descriptive statistics of all variables used in the cross-section and panel regression analysis.[14] The average young dependency ratio in 1816 is 0.631 implying that for roughly 1.6 working-age persons there is one young dependent person. The average young dependency ratio in 1849 is 0.598. The other distributional statistics of the young dependency ratios in 1816 and 1849 are quantitatively similar, too. The statistics for the young dependency ratio in 1882 are larger due to broader age groups in the historical data as mentioned earlier in Section 2.3.1 (see also Figure 2.3). The variation in the ratios across counties ranges between 0.589 in 1816 and 0.566 in 1882.

Industrialization towards the end of the first phase is on a low level with an average employment share of factory workers at 1.8 percent. Half of the factory workers are employed in industries outside metal and textile, one-third in metal, and one-sixth in textile. In the second phase, 11.5 percent of the population is working in manufacturing but the relative proportion of sectors has changed over time. Around 40 percent of the

[14] Table B.1 in the Appendix reports the descriptive statistics for variables used in the robustness checks and in further analyses presented in Sections 2.4.3 and 2.4.5.

manufacturing workers were employed in manufacturing outside metal and textile, 27 percent in metal and 33 percent in textile manufacturing, which shows the strongest increase over time. The development of all three sectors over time is depicted in Figure 2.1(b).

Table 2.1: *Summary Statistics*

Variable	Mean	SD	Min	Max	Median
Young Dependency Ratio 1816	0.631	0.072	0.386	0.975	0.629
Young Dependency Ratio 1849	0.598	0.068	0.323	0.770	0.602
Young Dependency Ratio 1882	0.904	0.111	0.599	1.165	0.891
Share of All Factory Workers in Total Population 1849	0.018	0.017	0.004	0.185	0.012
Share of Factory Workers Outside Metal and Textile in Total Population 1849	0.009	0.008	0.002	0.072	0.007
Share of Metal Factory Workers in Total Population 1849	0.006	0.012	0.000	0.165	0.003
Share of Textile Factory Workers in Total Population 1849	0.003	0.007	0.000	0.070	0.000
Share of All Manufacturing Workers in Total Population 1882	0.115	0.058	0.022	0.292	0.101
Share of Manufacturing Workers Outside Metal and Textile in Total Population 1882	0.046	0.018	0.010	0.106	0.045
Share of Metal Manufacturing Workers in Total Population 1882	0.031	0.033	0.005	0.207	0.019
Share of Textile Manufacturing Workers in Total Population 1882	0.038	0.032	0.007	0.226	0.028
Years of Schooling 1849	0.052	0.013	0.015	0.077	0.055
Population Density 1849 (1 000 people per km^2)	0.165	0.917	0.020	14.978	0.057
County Area (in 1000 km^2)	0.829	0.447	0.002	2.541	0.796
Literacy Rate 1871	0.837	0.138	0.361	0.985	0.898
Population Density 1882 (1 000 people per km^2)	0.268	1.638	0.026	24.530	0.067
Share of Population living in Cities 1816	0.251	0.183	0.000	1.000	0.213
Looms per capita 1819	0.008	0.020	0.000	0.233	0.004
Steam Engines in Mining (per 1 000 inhabitants) 1849	0.015	0.087	0.000	1.010	0.000
Sheep per capita 1816	0.562	0.440	0.000	2.579	0.461
Share of Farm Laborers in Total Population 1849	0.096	0.040	0.000	0.241	0.091
Public Buildings per capita 1821	0.005	0.003	0.000	0.021	0.004
Paved Streets 1815	0.211	0.408	0.000	1.000	0.000
Tonnage of Transport Ships (in 4 000p) per capita 1819	0.011	0.037	0.000	0.477	0.000
Share of Proto-Industrial Workers in Total Population 1819	0.002	0.001	0.000	0.013	0.001
Population Density 1816 (1 000 people per km^2)	0.120	0.545	0.010	9.163	0.051
School Enrollment Rate 1816	0.582	0.202	0.027	0.954	0.633
Young Dependency Ratio 1864	0.602	0.067	0.375	0.746	0.603
Young Dependency Ratio 1867	0.877	0.107	0.505	1.134	0.877
Young Dependency Ratio 1871	0.966	0.113	0.577	1.252	0.967
Young Dependency Ratio 1875	0.898	0.112	0.579	1.145	0.895
Age-Weighted School Enrollment Rate 1849	0.651	0.160	0.191	0.964	0.689

Data sources: Becker *et al.* (2011), Becker *et al.* (2014), and Galloway (2007).

The pairwise correlations among the young dependency ratios and industrialization measures show that the young dependency ratios are strongly positive and significantly related to each other at the three points as well as all industrialization measures and their corresponds over time.[15] The three young dependency ratios are significantly and negatively associated with the aggregate measures of industries in the textile sector and with industries outside metal and textile. While these correlations indicate strong and significant

[15]Table B.2 in the Appendix shows the pairwise correlations between the young dependency ratios and the (sector-specific) industrial employment shares.

relations, the 2SLS estimates uncover the causal effect of the young dependency ratio on industrialization as shown in the next section.

2.4 Main Results

2.4.1 The First Phase of Industrialization

The empirical analysis examines the effect of the young dependency ratio on the process of industrialization in Prussia. Given the endogeneity of the population structure to the economic environment, the analysis focuses on IV regressions. Table 2.2 reports the 2SLS estimates of the effect of the young dependency ratio on factory employment shares in 1849. The young dependency ratio is instrumented by the pre-industrial young dependency ratio. The table presents the results for the first stage in Column 1 and results for the second stage with sector-specific employment shares as dependent variables in Columns 2 to 5. The dependent variables are the overall factory employment share in Column 2, the factory employment share outside metal and textile in Column 3, the metal factory employment share in Column 4, and the textile factory employment share in Column 5.[16]

The top panel of Table 2.2 presents estimates for a parsimonious model without controls except for a constant. The first-stage estimate in Column 1 shows a positive and highly significant correlation between the pre-industrial dependency ratio and the young dependency ratio in 1849.[17] The resulting second-stage estimates are negative and highly significant at the 1 percent significance level for the total factory employment share in Column 2, the factory employment share outside metal and textile in Column 3, and the textile factory employment share in Column 5. These relationships reduced in absolute magnitudes remain negative and highly significant once progressively accounting for the confounding factors of education and geography (in the middle panel) as well as pre-industrial characteristics (in

[16]Estimation results for the reduced form can be found in Table B.7 in the Appendix. In addition, Figure B.1(a) in the Appendix illustrates the unconditional reduced-form relationship.

[17]Figure B.2(a) in the Appendix shows the unconditional first-stage relationship as in Column 1 of the top panel.

Table 2.2: *2SLS Estimates - 1849*

Dependent Variable:	1st Stage	2nd Stage Share of Factory Workers in Total Population 1849			
	(1) Young Dep. Ratio 1849	(2) All Factories	(3) All except Metal and Textile	(4) Metal Factories	(5) Textile Factories
Young Dependency Ratio 1849		-0.078***	-0.042***	-0.008	-0.027***
		(0.021)	(0.009)	(0.013)	(0.007)
Young Dependency Ratio 1816	0.615***				
	(0.078)				
Observations	323	323	323	323	323
Education and Geography	-	-	-	-	-
Pre-Industrial Development	-	-	-	-	-
Effective F-Statistic		61.60	61.60	61.60	61.60
AR p-value		0.000	0.000	0.504	0.000
AR 95% CI Lower Bound		-0.125	-0.062	-0.035	-0.043
AR 95% CI Upper Bound		-0.040	-0.026	0.016	-0.013
Young Dependency Ratio 1849		-0.076***	-0.034***	-0.008	-0.034***
		(0.027)	(0.010)	(0.017)	(0.010)
Young Dependency Ratio 1816	0.529***				
	(0.074)				
Observations	323	323	323	323	323
Education and Geography	✓	✓	✓	✓	✓
Pre-Industrial Development	-	-	-	-	-
Effective F-Statistic		51.59	51.59	51.59	51.59
AR p-value		0.003	0.001	0.631	0.000
AR 95% CI Lower Bound		-0.134	-0.056	-0.043	-0.055
AR 95% CI Upper Bound		-0.026	-0.015	0.023	-0.010
Young Dependency Ratio 1849		-0.056***	-0.023***	-0.004	-0.029***
		(0.021)	(0.007)	(0.016)	(0.008)
Young Dependency Ratio 1816	0.496***				
	(0.067)				
Observations	323	323	323	323	323
Education and Geography	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓
Effective F-Statistic		54.68	54.68	54.68	54.68
AR p-value		0.006	0.002	0.807	0.001
AR 95% CI Lower Bound		-0.100	-0.038	-0.037	-0.047
AR 95% CI Upper Bound		-0.017	-0.009	0.026	-0.013

Notes: This table reports instrumental variable estimates, with the young dependency ratio 1849 instrumented by the young dependency ratio 1816. The dependent variable is employment in (sector-specific) factories divided by the total population. All regressions include a constant and control for educational and geographical characteristics as well as for pre-industrial development where indicated. Educational and geographic control variables are the years of schooling 1849, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011) and Becker *et al.* (2014). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** $p<0.01$,** $p<0.05$, * $p<0.1$.

the bottom panel). There is no significant effect of the young dependency ratio on the metal factory employment share in all specifications.[18]

Following Andrews *et al.* (2019), the cluster-robust, effective F-statistic, and weak-instrument-robust Anderson-Rubin (AR) confidence intervals for inference are reported in all panels of Table 2.2. The values of the effective F-statistic above 50 indicate a strong instrument and exceed the rule of thumb threshold of 10 proposed by Steiger and Stock (1997) as well as the Olea and Pflueger (2013) critical value of 37.418 at which it is possible to reject the null hypothesis at the 5 percent level that the approximate asymptotic bias of the IV estimates is 5 percent of a worst-case bias. In addition, the AR 95% confidence intervals indicate that the estimated significant relationships are robust to weak instruments. The corresponding p-value of testing the null hypothesis that each coefficient of the young dependency ratio is equal to zero can be rejected at the 1 percent level robust to weak instrument.

The estimated coefficients are substantial in view of the first phase of the industrialization process. The estimated coefficient for the total factory employment share with the full set of controls in Column 2 of the bottom panel, -0.056 (0.021), suggests that a decline in the young dependency ratio of one standard deviation, 0.068, will result in an increase of factory employment of 0.224 of its standard deviation, 0.017. That is, a young dependency ratio decline of one standard deviation will result in a factory employment increase of about 0.004. This implies 22 percent of the average factory employment share per capita in 1849.

2.4.2 The Second Phase of Industrialization

Table 2.3 shows the 2SLS estimates for the second phase of industrialization in Prussia in 1882. The table follows the same structure as Table 2.2 by adding controls in each panel including the industrial level in 1849 in the bottom panel in order to analyze the additional effect of the young dependency ratio on industrialization during the second phase. The

[18]The results do hold if the school enrollment rate in 1849 is used as a control variable for education instead of the average years of schooling in the adult population (see Tables B.9–B.12 in the Appendix).

instrumented young dependency ratio in 1882 is now defined as the number of persons under 20 years of age relative to the population at least 20 and under 70 years of age due to data availability. Column 1 reports the first stage.[19] As in Table 2.2, Columns 2 to 5 show the second-stage results for the total and sector-specific manufacturing employment share in 1882.[20]

The 2SLS estimates show a negative and highly significant effect of the young dependency ratio on total manufacturing employment share at the 1 percent level for all sets of control variables. Again, the significant effect is mainly borne by the textile manufacturing employment share and to a less extent by the employment share outside metal and textile. These estimates albeit at a lower, absolute magnitude are found once controlling for the industrial level reached in 1849 (bottom panel). Hence, a smaller young dependency ratio affected industrialization not only during the first phase but also the further industrialization process during the second phase by providing a relative larger labor force.

The pre-industrial young dependency ratio is a strong instrument for the young dependency ratio in 1882 (see Column 1).[21] The effective F-statistic with values of around 28 or larger indicates no weak instrument issue. The weak-instrument-robust AR 95% confidence intervals include only negative values in Columns 2, 3, and 5. The null hypothesis that each coefficient of the young dependency ratio is equal to zero can be rejected at the 1 percent level robust to weak instrument.

The effect of the young dependency ratio in the industrialization process in the second phase must be interpreted to the industrial level in 1882. The estimated effect for the total manufacturing employment share accounting for all confounding factors except the industrial level in 1849, -0.201 (0.069), means that a decline in the young dependency ratio of one of its standard deviation, 0.111, will increase the total manufacturing employment

[19]Figure B.2(b) in the Appendix illustrates the unconditional first-stage relationship.

[20]Again, estimation results for the reduced form can be found in Table B.8 in the Appendix with Figure B.1(b) illustrating the unconditional reduced-form relationship.

[21]Note, the first-stage result in the bottom panel of Table 2.3 refers to the total employment share in Column 2 since controlling for each sector-specific industrial level in 1849 implies a varying first stage with respect to the control variables.

Table 2.3: *2SLS Estimates - 1882*

Dependent Variable:	1st Stage	2nd Stage Share of Manufacturing Workers in Total Population 1882			
	(1) Young Dep. Ratio 1882	(2) All Manufacturing	(3) All except Metal and Textile	(4) Metal Manufacturing	(5) Textile Manufacturing
Young Dependency Ratio 1882		-0.313***	-0.117***	-0.045	-0.151***
		(0.047)	(0.013)	(0.028)	(0.024)
Young Dependency Ratio 1816	0.874***				
	(0.126)				
Observations	323	323	323	323	323
Education and Geography	-	-	-	-	-
Pre-Industrial Development	-	-	-	-	-
Industrial Progress	-	-	-	-	-
Effective F-Statistic		48.03	48.03	48.03	48.03
AR p-value		0.000	0.000	0.101	0.000
AR 95% CI Lower Bound		-0.416	-0.144	-0.103	-0.203
AR 95% CI Upper Bound		-0.226	-0.090	0.007	-0.107
Young Dependency Ratio 1882		-0.217***	-0.074***	0.020	-0.163***
		(0.082)	(0.021)	(0.046)	(0.045)
Young Dependency Ratio 1816	0.608***				
	(0.114)				
Observations	323	323	323	323	323
Education and Geography	✓	✓	✓	✓	✓
Pre-Industrial Development	-	-	-	-	-
Industrial Progress	-	-	-	-	-
Effective F-Statistic		28.48	28.48	28.48	28.48
AR p-value		0.002	0.000	0.672	0.000
AR 95% CI Lower Bound		-0.421	-0.122	-0.087	-0.270
AR 95% CI Upper Bound		-0.077	-0.036	0.102	-0.087
Young Dependency Ratio 1882		-0.201***	-0.053***	-0.000	-0.148***
		(0.069)	(0.018)	(0.044)	(0.038)
Young Dependency Ratio 1816	0.570***				
	(0.099)				
Observations	323	323	323	323	323
Education and Geography	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓
Industrial Progress	-	-	-	-	-
Effective F-Statistic		33.08	33.08	33.08	33.08
AR p-value		0.000	0.002	0.997	0.000
AR 95% CI Lower Bound		-0.372	-0.094	-0.102	-0.235
AR 95% CI Upper Bound		-0.090	-0.020	0.078	-0.081
Young Dependency Ratio 1882		-0.161***	-0.044***	0.000	-0.112***
		(0.059)	(0.017)	(0.039)	(0.032)
Young Dependency Ratio 1816	0.591***				
	(0.099)				
Observations	323	323	323	323	323
Education and Geography	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓
Industrial Progress	✓	✓	✓	✓	✓
Effective F-Statistic		35.48	33.18	34.72	31.55
AR p-value		0.001	0.007	0.999	0.000
AR 95% CI Lower Bound		-0.303	-0.083	-0.091	-0.188
AR 95% CI Upper Bound		-0.060	-0.013	0.070	-0.055

Notes: This table reports instrumental variable estimates, with the young dependency ratio 1882 instrumented by the young dependency ratio 1816. The dependent variable is employment in (sector-specific) manufacturing divided by the total population. All regressions include a constant and control for educational and geographical characteristics, for pre-industrial development as well as for the (sector-specific) industrial level reached in 1849 where indicated. Educational and geographic control variables are the literacy rate 1871, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. First-stage regression in the bottom panel refers to Column 2. Data sources: Becker *et al.* (2011), Becker *et al.* (2014), and Galloway (2007). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

share by about 0.022. This implies 19 percent of the average manufacturing employment share in 1882.

Summing up, the population structure in Prussia had a substantial and causal effect on the industrialization process during the entire 19th century. A smaller young dependency ratio increased the employment share in the upcoming industrial sector by shifting the distribution towards individuals of working ages allowing to establish new industrial technologies in the economy.

2.4.3 Robustness

This section provides a brief discussion of robustness tests with respect to religion, urbanization, migration, geography, and initial conditions. The corresponding tables with the total and the sector-specific employment shares as dependent variables in both phases of industrialization can be found in the Appendix. The following discussion refers to Tables B.9–B.16 in the Appendix. In addition, the section discusses further IV results using the pre-industrial young population share as an instrument and estimating 2SLS regressions with alternative dependent variables such as the total industrial employment shares in the employed labor force as well as the share of women employed in the industry in 1867. These additional estimation results are presented below in Table 2.4.

Religion. The baseline analysis abstains from religious indicators as control variables. To test whether the significant effect on the industrial employment shares is driven by denominations with potentially associated occupation choices or by religious customs that promote human capital, such as reading sacred writings (see Botticini and Eckstein, 2007; Becker and Woessmann, 2009), the shares of protestants and of Jews in a county are separately added as control variables. The estimation results are unaltered.

Urbanization. The pre-industrial characteristics include the share of the population living in cities in 1816 as a control measuring urbanization, which is associated with the process of industrialization. Controlling for counties with at least one of the medium and large towns in 1816 and for the share of a county's population living in cities in 1849 as alternative measures, the results of the young dependency ratio are unaffected.

Migration. Internal and international migration is a potential concern. If individuals move to counties with promising economic opportunities like the emergence of an industrial sector, the young dependency ratio in these counties might be reduced by construction. Moreover, counties with high international immigration might have an overall different marriage and fertility pattern affecting the county's population structure and labor force. Becker *et al.* (2013) provide two measures to address migration given data availability. In 1880, they measure the share of the population born in a county, and net migration defined as the difference between immigrants and emigrants over the referred population. Controlling for both migration measures separately does not change the significant effect of the young dependency ratio indicating that the analysis is robust to migration influences. Interestingly, the coefficients of the population share born in a county change their significant effect from positive in 1849 to negative in 1882 for the overall industrial employment shares indicating that internal migration has become important for the industrial process in the second half of the 19th century (see Grant, 2005).

Geography. To ensure that the results are robust to geographic factors across counties, a rich set of further geographic controls is added. The distribution of land might have influenced the occupational choice and potentially the population structure in counties. The coefficients for land inequality in 1849 enter the regression model (mostly) insignificantly and do not change the young dependency ratio estimates. The estimation results are qualitatively and quantitatively stable once including a dummy for the Western part of Prussia in 1849 as shown in Figure 2.5(d) or a dummy for counties located in Poland today. The coefficients are qualitatively unchanged, but quantitatively larger (in absolute terms) once the latitude and longitude of each county are controlled for. The augmentation of the model with these three geographic features (mostly) indicates no issue of spatial auto-correlation. The p-values of Moran tests of the null hypothesis that the error terms are spatially uncorrelated can not be rejected at conventional levels.[22] Nevertheless, Edwards (2018, 2021) argues that regional effects have had an important influence on Prussia's economic development including the process of industrialization, and must therefore be accounted for. In particular, Edwards (2018) suggests including provincial dummy variables, the year of annexation of a county, and its interaction with the provincial dummy to account for regional effects and variation in the institutional framework across counties. Following the approach of Edwards (2018), the estimation results of the young dependency ratio remain negative and significant. Significance is slightly reduced to the 5 percent level in 1849 but remains at the 1 percent level in 1882. The estimated coefficients are now even slightly larger (in absolute terms) for the total employment shares in the baseline analysis. The main driver is still the textile industry. It is important to keep in mind that the omitted province is Prussia serving as a reference province in these specifications. The results thereby confirm the findings once accounting for regional effects but do not provide a comparable interpretation.

Clustering. The relationship between the young dependency ratio and industrialization is not affected by clustering the standard errors at the 24 district levels (*Regierungsbezirke*), as reported in the third last column of the tables. Note, the district of Cologne is excluded from the empirical analysis due to missing age-specific population data in its counties in 1816.

Initial conditions. The baseline analysis does not rule out that initial disparities in the pre-industrial young dependency ratio affect the subsequent industrialization process. Counties with a lower pre-industrial young dependency ratio could have industrialized more due to a persistent relative larger labor force while counties with a larger ratio could not experience the industrialization process driven by a larger labor supply. Otherwise, counties with an initial higher young dependency ratio could have a lower ratio in 1849 due to the survival and aging of the young individuals alive in 1816 resulting in a larger labor supply in 1849.

[22] Following Edwards (2021), the spatial weight matrix is specified by an exponential function with the default decay parameter in Kondo (2018) of 0.03.

To address this concern, the county sample is split by the median value of the pre-industrial young dependency ratio distribution and the IV estimates are conducted for the first phase of industrialization. The counties below the median value in 1816 (second last column) still have a low young dependency ratio as indicated by the low effective F-statistic. There is no significant effect of the young dependency ratio on the total employment share of factory workers in 1849. The effect is also insignificant for counties above the median value in 1816 (see the last column), while the low effective F-statistic indicates that these counties have a lower ratio in 1849. Recall, the distributional statistics of the young dependency ratio in 1816 and in 1849 are fairly similar (see Table 2.1). Therefore, the split-sample estimation results preclude the concern that the onset of industrialization is driven by initial heterogeneity in the young dependency ratio. The second phase of industrialization is analyzed in the same manner by splitting the sample by the median value of the young dependency ratio (top panel) and by the median value of the (sector-specific) industrial level reached in 1849 (bottom panel) in order to focus on the further industrialization process. The overall manufacturing employment share in 1882 is (mainly) significantly, negatively affected in both samples irrespective of controlling for the already achieved industrial level in 1849. Note, the coefficient for the county sample above the median value of the young dependency ratio in 1849 is insignificant but it can be inferred from the AR confidence interval that the coefficient is negative. The corresponding AR p-value for rejecting the hypothesis that the coefficient is equal to zero is below 5 percent. A possible explanation for the reduced instrument relevance might be the larger young dependency ratios in 1882 defined by broader age groups.[23] Overall, the split sample analysis alleviates concerns that the baseline results are driven by differential trends depending on the initial demographic condition.

Further results. The dependent variables are so far employment shares relative to a county's population. Alternatively, the employment shares can be measured in relation to

[23]Each split of the county sample and the comparison against the young dependency ratio in 1849 and in 1882 is illustrated in Figure B.4 in the Appendix.

Table 2.4: *2SLS Estimates - Robustness Tests - Further Results*

	1849		1882		1867	
Dependent Variable:	(1) Employed Labor	(2) All Factories	(3) Employed Labor	(4) All Manufacturing	(5) Women in Industry	(6) Women in Industry
Young Dependency Ratio 1849	-0.080**					
	(0.039)					
Young Population Share 1849		-0.131***				
		(0.049)				
Young Dependency Ratio 1882			-0.271*			
			(0.156)			
Young Population Share 1882				-0.780***		
				(0.244)		
Young Dependency Ratio 1867					-0.054***	
					(0.016)	
Young Population Share 1867						-0.183***
						(0.050)
Observations	323	323	323	323	323	323
Education and Geography	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓
Effective F-Statistic	54.68	92.27	33.08	43.00	31.80	41.46
AR p-value	0.035	0.007	0.046	0.000	0.000	0.000
AR 95% CI Lower Bound	-0.160	-0.235	-0.660	-1.388	-0.091	-0.296
AR 95% CI Upper Bound	-0.008	-0.039	-0.005	-0.384	-0.026	-0.094

Notes: This table reports instrumental variables estimates relating young dependency ratios and young population shares to measures of industrialization in 1849, 1867, and 1882. See text for the definition of the respective variable. All regressions include a constant and control for educational and geographical characteristics as well as for pre-industrial development where indicated. Educational and geographic control variables are the years of schooling 1849 (the literacy rate 1871), population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011), Becker *et al.* (2013), Becker *et al.* (2014), and Galloway (2007). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** $p<0.01$,** $p<0.05$, * $p<0.1$.

the employed labor force. The new measurement of total industrial employment share as a dependent variable delivers quantitatively and qualitatively unchanged results (see Columns 1 and 3 of Table 2.4). Note, the baseline analysis intends to avoid concerns of endogeneity related to labor market participation of the labor force and measurement errors related to the labor force. Since the contemporary definition of the working-age population is certainly not applicable to Prussia in the 19th century, an alternative measurement for the relative size of the young age group as explanatory variable is the share of young individuals in a population. The pre-industrial young population share in 1816 can be used as an alternative IV for the young population share during industrialization. The corresponding coefficients are negative and highly significant confirming the previous findings that a relatively smaller young age group in the population increases industrialization (see Columns 2 and 4). Furthermore, the new employment opportunities outside agriculture should have increased the opportunity costs of raising children and thereby should have positively influenced the share of women in the industrial sector. The share of women in the industry in 1867 provided by Becker *et al.* (2013) is negatively and significantly affected by the young dependency ratio (see Column 5). A smaller young age group increases not just the overall industrial employment share but even the industrial female labor force. The result also holds using the pre-industrial young population share as an IV (see Column 6).[24]

2.4.4 Panel Estimates

Table 2.5 reports the results for the panel specification as stated in Section 2.3.2. The main purpose of the panel estimations is to alleviate concerns that the cross-sectional results capture an unobserved period effect that affects all counties equally or an unobserved heterogeneity across counties that is constant over time. Therefore, the panel models are throughout estimated with county and period fixed effects. The young dependency ratios in the two industrialization phases are instrumented by lagged shares observed in years outside of the two observation years. While the young dependency ratio in 1816 serves as an instrument for the ratio in 1849, all available population data between 1849 and 1882 containing age distributions on the county level are used for creating the lagged young dependency ratio as an IV for 1882. In particular, the young dependency ratio in 1864, 1867, 1871, and 1875 are successively used as IVs for 1882. Converging towards the year 1882 with the lagged young dependency ratio, the estimated coefficients should become smaller (in absolute) magnitude since the scope for additional industrialization due to a lower young dependency ratio relative to earlier levels is reduced. The convergence is shown in the estimated coefficients in Table 2.5. Except for Column 2, there is a negative and significant effect of the young dependency ratio on industrialization with a sufficiently high F-statistic and small enough p-values of weak-instrument-robust tests of the null hypothesis that the estimated coefficients are equal to zero. Counties with a lower young dependency ratio in later years relative to earlier years experienced additional industrialization.

[24]The young population shares and the young dependency ratios in 1816, 1849, 1867, and 1882 are illustrated in Figures B.5 and B.6 in the Appendix, respectively. Both measures vary slightly with respect to age thresholds in the corresponding years due to data availability.

Table 2.5: *Fixed-Effects Panel Estimates*

	Two Industrialization Phases (1849, 1882)							
	IVs (1816, 1864)		IVs (1816, 1867)		IVs (1816, 1871)		IVs (1816, 1875)	
Dependent Variable:	(1) Young Dep. Ratio	(2) Industria-lization	(3) Young Dep. Ratio	(4) Industria-lization	(5) Young Dep. Ratio	(6) Industria-lization	(7) Young Dep. Ratio	(8) Industria-lization
Young Dependency Ratio		-0.356		-0.368***		-0.337***		-0.241***
		(0.227)		(0.079)		(0.066)		(0.053)
Young Dependency Ratio (lagged)	0.165***		0.342***		0.391***		0.499***	
	(0.059)		(0.043)		(0.044)		(0.050)	
Education	0.010	0.101***	0.054	0.101***	0.057*	0.101***	0.084***	0.103***
	(0.040)	(0.027)	(0.035)	(0.026)	(0.032)	(0.026)	(0.026)	(0.025)
Industrialization (lagged)	-0.099	0.806***	-0.036	0.805***	-0.029	0.807***	-0.124	0.814**
	(0.223)	(0.310)	(0.170)	(0.308)	(0.152)	(0.312)	(0.123)	(0.322)
Population Density	-0.006*	0.008***	-0.002	0.008***	0.001	0.008***	-0.000	0.009***
	(0.003)	(0.002)	(0.005)	(0.002)	(0.005)	(0.002)	(0.004)	(0.002)
Observations	646	646	646	646	646	646	646	646
Number of Counties	323	323	323	323	323	323	323	323
County Fixed Effects	✓	✓	✓	✓	✓	✓	✓	✓
Period Fixed Effects	✓	✓	✓	✓	✓	✓	✓	✓
Kleibergen-Paap F-Statistic		7.78		62.56		78.62		99.60
AR p-value		0.111		0.000		0.000		0.000
AR 95% CI Lower Bound		-1.368		-0.540		-0.476		-0.348
AR 95% CI Upper Bound		0.100		-0.222		-0.208		-0.135

Notes: This table reports panel instrumental variables estimates, with young dependency ratios instrumented by lagged young dependency ratios. The dependent variable is industrialization measured as employments in factories 1849 divided by total population or employments in manufacturing 1882 divided by the total population. All regressions include county and period fixed effects. Control variables comprise education, lagged industrialization and population density. Data sources: Data sources: Becker *et al.* (2011), Becker *et al.* (2014), and Galloway (2007). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

Although the magnitude of the coefficient in Column 2 is reasonable, the reason for the absence of a significant effect using the young dependency ratio in 1864 as an IV is that this ratio is defined as individuals under 15 years of age relative to the population over 15 and under 65 years of age (due to data availability) and does thereby not explain as much of the young dependency ratio in 1882 as the other three lagged shares in the first stage (see Columns 1, 3, 5, and 7).[25] The p-value of the weak-instrument-robust test in Column 2 is just above the 10 percent level such that no inference about the estimated coefficient can be made. Recall, the panel estimations exploit the within variation since the cross variation is captured by county fixed effects.

In general, the negative, significant, and in (absolute) magnitude declining estimated coefficients of the young dependency ratio in Columns 4, 6, and 8 in conjunction with significant controls, time and county fixed effects permit the conclusion that the cross-sectional findings are valid and not driven by unobserved time effects or heterogeneity across counties.[26]

[25]The young dependency ratios used for the panel estimations are shown in Figure B.6 in the Appendix.

[26]Following Becker *et al.* (2011), the education measure in 1849 for the panel estimates is an age-weighted school enrollment rather than years of schooling in order to have comparable measurement over time. The

2.4.5 Complementary Effects

The implementation of new industrial technologies does not only require a population structure that favors a large labor force with a low young age group but also educated workers that are able to adopt the new industrial technologies. In a closely related study, Becker *et al.* (2011) examine the importance of education for the Industrial Revolution in Prussia. They find that formal education has a significant effect on industrialization. It had an important role for industries outside the textile industry, which has been characterized by slow and incremental technical change. Thus, education plays an important role in the industrial catch-up process in Prussia. Their IV approach uses the pre-industrial school enrollment rate in 1816 to instrument education in 1849 and 1882 measured by the average years of schooling in the adult population in 1849 and literacy defined as the population older than 10 with the ability to read and write relative to the total population. Using the pre-industrial enrollment rate as an additional IV for education, the following analysis studies the role of the population structure and of education on the industrialization process as well as the complementarity of both effects since human capital and the demographic environment of an economy are interrelated in the light of the unified growth theory.

Table 2.6 presents the estimation results using the two pre-industrial IVs. The two variables capture a large share of the variation of their corresponding variable in 1849 and are significantly associated with them as shown by the highly significant coefficients in Columns 1 and 2. The second-stage results show a significant and negative effect of the young dependency ratios on all employment shares except for the metal factories. However, education is positively and significantly associated with the industries outside textile (see Columns 4 and 5). Thus, general statements about the importance of education and labor in the process of industrialization might be misleading if the sector-specific demand with respect to both factors is not accounted for. The F-statistics are large enough to rule out a weak instrument issue and the p-values for testing the null hypothesis that the estimated coefficients are jointly zero can be rejected robust to weak instruments except for Column 5.

descriptive statistics for the age-weighted enrollment rate can be found in Table 2.1.

Table 2.6: *2SLS Estimates - Two Instruments - 1849*

Dependent Variable:	1st Stage		2nd Stage Share of Factory Workers in Total Population 1849			
	(1) Young Dep. Ratio 1849	(2) Years of schooling 1849	(3) All Factories	(4) All except Metal and Textile	(5) Metal Factories	(6) Textile Factories
Young Dependency Ratio 1849			-0.060***	-0.025***	-0.005	-0.031***
			(0.021)	(0.007)	(0.016)	(0.009)
Years of Schooling 1849			0.110*	0.094**	0.060**	-0.045
			(0.058)	(0.038)	(0.030)	(0.030)
Young Dependency Ratio 1816	0.495***	0.001				
	(0.067)	(0.003)				
School Enrollment Rate 1816	-0.027	0.061***				
	(0.017)	(0.001)				
Observations	323	323	323	323	323	323
Education and Geography	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓
Kleibergen-Paap F-Statistic			27.16	27.16	27.16	27.16
AR p-value			0.001	0.000	0.129	0.003
F-Statistic Young Dep. Ratio 1849			38.45	38.45	38.45	38.45
F-Statistic Years of schooling 1849			2854	2854	2854	2854
Shea Partial R^2 Young Dep. Ratio 1849			0.329	0.329	0.329	0.329
Shea Partial R^2 Years of schooling 1849			0.818	0.818	0.818	0.818

Notes: This table reports instrumental variables estimates, with the young dependency ratio 1849 and the years of schooling 1849 instrumented by the young dependency ratio 1816 and the school enrollment rate 1816, respectively. The dependent variable is employment in (sector-specific) factories divided by the total population. All regressions include a constant and control for educational and geographical characteristics as well as for pre-industrial development where indicated. Educational and geographic control variables are population density and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011) and Becker *et al.* (2014). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

The results and the pattern in Table 2.6 are confirmed by the findings in Table 2.7. The two instruments strongly affect the endogenous variables in the first stage in opposite directions consistent with the quantity-quality trade-off. The coefficients for the young dependency ratio are negative and highly significant in the second stage for the total employment share driven by textile manufacturing and manufacturing outside metal and textile. The distinction between sectors becomes even more relevant since the negative, significant coefficient of education in the textile manufacturing counterbalances the significant positive effect in the other two sectors such that no significant effect for the overall manufacturing employment share can be found (see Column 3).[27]

Overall, the population structure and human capital play both a significant role in the industrialization process in Prussia over the 19th century. The underlying mechanisms for this result are discussed in the following section.

[27]Becker *et al.* (2011) argue that education has a significantly positive effect on industries characterized by a disruptive technological change which has not been the case in the textile industry.

Table 2.7: *2SLS Estimates - Two Instruments - 1882*

Dependent Variable:	1st Stage		2nd Stage Share of Manufacturing Workers in Total Population 1882			
	(1) Young Dep. Ratio 1882	(2) Literacy rate 1871	(3) All Manufacturing	(4) All except Metal and Textile	(5) Metal Manufacturing	(6) Textile Manufacturing
Young Dependency Ratio 1882			-0.272***	-0.050***	-0.012	-0.210***
			(0.071)	(0.018)	(0.036)	(0.051)
Literacy Rate 1871			-0.001	0.048***	0.053*	-0.102**
			(0.052)	(0.015)	(0.028)	(0.041)
Young Dependency Ratio 1816	0.628***	-0.171*				
	(0.107)	(0.099)				
School Enrollment Rate 1816	-0.111***	0.349***				
	(0.030)	(0.044)				
Observations	323	323	323	323	323	323
Education and Geography	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓
Industrial Progress	-	-	-	-	-	-
Kleibergen-Paap F-Statistic			19.26	19.26	19.26	19.26
AR p-value			0.000	0.000	0.076	0.000
F-Statistic Young Dep. Ratio 1882			36.31	36.31	36.31	36.31
F-Statistic Literacy rate 1871			43.74	43.74	43.74	43.74
Shea Partial R^2 Young Dep. Ratio 1882			0.152	0.152	0.152	0.152
Shea Partial R^2 Literacy rate 1871			0.186	0.186	0.186	0.186
Young Dependency Ratio 1882			-0.224***	-0.044***	-0.011	-0.162***
			(0.062)	(0.017)	(0.032)	(0.044)
Literacy Rate 1871			-0.010	0.043***	0.042	-0.077**
			(0.049)	(0.014)	(0.026)	(0.034)
Young Dependency Ratio 1816	0.642***	-0.142				
	(0.108)	(0.100)				
School Enrollment Rate 1816	-0.115***	0.341***				
	(0.031)	(0.044)				
Observations	323	323	323	323	323	323
Education and Geography	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓
Industrial Progress	✓	✓	✓	✓	✓	✓
Kleibergen-Paap F-Statistic			20.26	19.35	19.56	17.98
AR p-value			0.000	0.000	0.141	0.000
F-Statistic Young Dep. Ratio 1882			37.28	34.99	38.47	35.50
F-Statistic Literacy rate 1871			40.01	39.46	43.19	43.83
Shea Partial R^2 Young Dep. Ratio 1882			0.167	0.155	0.159	0.148
Shea Partial R^2 Literacy rate 1871			0.193	0.185	0.186	0.186

Notes: This table reports instrumental variables estimates, with the young dependency ratio 1882 and the literacy rate 1871 instrumented by the young dependency ratio 1816 and the school enrollment rate 1816, respectively. The dependent variable is employment in (sector-specific) manufacturing divided by the total population. All regressions include a constant and control for educational and geographical characteristics, for pre-industrial development as well as for the (sector-specific) industrial level reached in 1849 where indicated. Educational and geographic control variables are population density and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. First-stage regression in the bottom panel refers to Column 3. Data sources: Becker *et al.* (2011), Becker *et al.* (2014), and Galloway (2007). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

2.5 Mechanisms

How can the young dependency ratio become smaller and thereby increase the industrial sector in Prussia's economy? This section discusses two potential mechanisms: the quantity-quality trade-off and the mortality transition.

Quantity-Quality Trade-Off. One mechanism that could have reduced the number of children is the so-called child quantity-quality trade-off. Becker *et al.* (2010, 2012) provide empirical evidence that this trade-off existed in Prussia in 1816 and in 1849 with increasing preferences towards quality instead of quantity over the first half of the 19th century.[28] The rise in the demand for skilled human capital induces parents to spend more time raising children at the cost of foregone time on the labor market and thus labor income. Thus, they substitute quality for quantity of children. As a result, skilled human capital in the economy emerges that is necessary to adopt new industrial technologies. The importance of education potentially stemming from this trade-off has been analyzed by Becker *et al.* (2011). The other side of the trade-off is that the substitution of child quality for quantity might reduce fertility rates and consequently reduces the share of young individuals.[29] Thereby, the population distribution shifts towards the population of working ages ending up in a relatively larger labor force. New technologies without the fixed factor of land benefit from the increase in labor as an input factor and become established in the economy. Industrialization occurs due to the complementary demographic dividend channel. This channel induced by the quantity-quality trade-off would imply a substantial, permanent, and continuous drop in fertility rates over several decades affecting the young population structure persistently. However, such a sustained and permanent decline only occurred at

[28]The quantity-quality trade-off has also been empirically verified by Bleakley and Lange (2009) and Fernihough (2017) in other settings.

[29]Other factors that restrict fertility are the education of women (Becker *et al.*, 2013), employment opportunities for women (Crafts, 1989), female relative wage (Schultz, 1985), marriage rate and age at first marriage (Foreman-Peck, 2011; Voigtländer and Voth, 2013a), fertility controls (Bengtsson and Dribe, 2006; Dribe and Scalone, 2010; Amialchuk and Dimitrova, 2012; Cinnirella *et al.*, 2017) or religious and social norms (Brown and Guinnane, 2002).

the end of the 19th century with the onset of the demographic transition, as shown in Figure 2.2, that is triggered by the quantity-quality trade-off being essential for the transition to sustained economic growth. Disaggregated data on the district level provided by Knodel (1974) show that the earliest onset of the fertility transition occurred in the districts of Erfurt and Potsdam in 1891 independent of the applied approach for dating the onset.[30] Therefore, it is quite unlikely that the fertility transition occurred even earlier in some regions within Prussia and that these regions industrialized more due to an earlier decline in the young dependency ratio. Recall, the marriage rate and the age at marriage remained stable throughout the 19th century, even on the sub-national level (see Lee, 1979). Hence, the share of the young population could not have been decreased due to reduced birth rates but rather must have been declined by a preceding mortality transition which is consistent with the chronological sequence of the demographic transition.

Mortality Transition. The mortality transition over the 19th century in Prussia is characterized by an increase in adult life expectancy. While infant mortality prevailed at a high level with only minor regional variations, adult longevity increased being the main determinant of population growth (see Lee, 1979).[31] Figure 2.6 shows the distribution of percentage changes in expected years to live at different ages for varying age intervals from 1816 to 1882 in Prussian districts that already existed in 1816. The life expectancy at different ages is calculated from new digitized, age-specific population and mortality data using the methodology as in Jayachandran and Lleras-Muney (2009).[32] The hurdles for creating

[30]Knodel (1974) dates the onset of the fertility decline in the year during which the index of marital fertility rate declines by 10 percent. Two alternative approaches for dating the onset are the years during which the index of marital fertility rate reaches a threshold of 0.6 or 0.5. The three different approaches and the resulting determined years of fertility decline in the Prussian districts in 1849 can be found in Table B.3 in the Appendix.

[31]Cervellati and Sunde (2015a) provide empirical evidence that life expectancy has a positive effect on population growth before the demographic transition.

[32]The original data sources for the mortality data are Mützell (1825) and Königliches Statistisches Bureau (1885). Population data are taken from Becker *et al.* (2014) and Königliches Statistisches Bureau (1884). For comparison reasons, the counties in the district of Cologne -excluded in the empirical analysis due to missing data- are not considered in the calculation of life expectancy. The age-specific death counts in Mützell (1825) are provided over the time period 1816 until 1821. Population in all age groups in a district is assumed to follow a linear, district-specific time trend such that the population structure in the short time period remains. The age

a consistent measure of age-specific life expectancy over time are (i) boundary changes with Prussia's enlargement and (ii) different data collections and availability of population and mortality data over time. Therefore, the calculation of age-specific life expectancy is conducted on the district level which is the lowest sub-national level (given data availability in 1816 and 1882) keeping the number of age groups with constant death rates equal to four.[33] Note, the goal of the analysis by calculating age-specific life expectancy is not to make precise, quantitative statements but rather qualitative statements that are invariable.

In Figure 2.6, the distributions of percentage changes in age-specific life expectancy show that the expected years conditional on reaching age 15 to live increased between 1816 and 1882 more than the expected years to live at birth until age 15. In particular, the median for the change in expected years to live at birth until age 15 is slightly negative while all other median distributions' values are positive with increasing magnitude for larger time horizons (conditional reaching age 15). For instance, the expected years to live in the age interval 15 to 60 years increased (on average by 3.88%) by its median value of 3.21%.[34] The increase stems from the substantial rise in expected years to live at age 45 until age 60 by (13.08% on average) 13.07% at the median value. Together with the increase of years to live in the intervals, 15-30 years and 30-45 years, the results are in line with the process of rectangularization. This process implies that an increase in life expectancy is mainly driven by an increase in the survival rates at intermediate ages, while the survival rates during young ages and the maximum lifespan remain unchanged (Cervellati and Sunde, 2013, p. 2061). Thus, the young dependency ratio must have decreased due to higher life expectancy at intermediate ages with a constant birth rate over time. In other words, the relatively larger increase in adult life expectancy reduced the young dependency ratio by construction

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group numbers between 1816 and 1821 are thereby interpolated using the given, total population figures in 1816 and 1821.

[33]In 1816, these four age groups are 0-14, 15-44, 45-59, and over 60 years of age. In 1882, these four age groups are 0-14, 15-39, 40-59, and over 60 years of age.

[34]The distributional statistics of Figure 2.6 can be found in Table B.4 in the Appendix.

since more people are alive at older ages.[35]

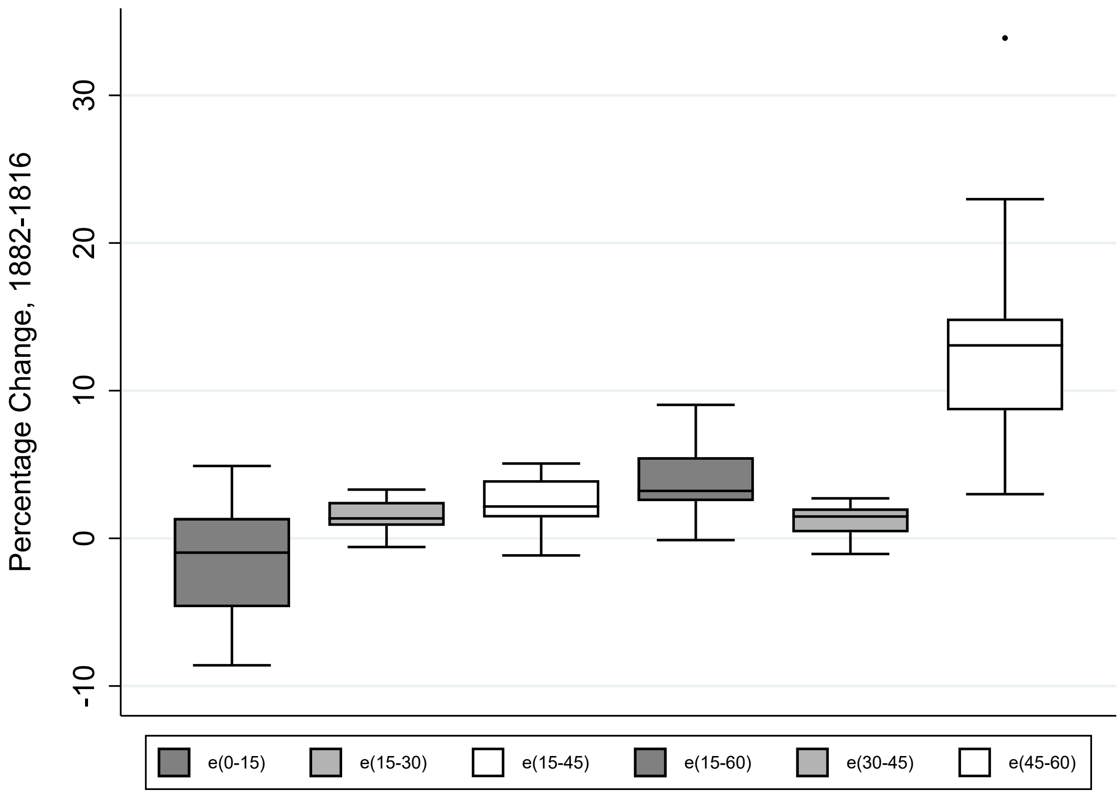

Figure 2.6: *Percentage Change in Life Expectancy – 1882-1816*

Data sources: Mützell (1825), Königliches Statistisches Bureau (1885), Becker et al. (2014), and Königliches Statistisches Bureau (1884).

The increase of the population in older ages might also be reflected by the population data collection process of the Prussian Statistical Office with records of age groups at (generally) higher ages after 1849 (see Galloway, 1988b). Figure 2.7 shows the distribution of percentage changes in the population share aged 60 years or older at the county level over the 19th century. Although the years 1867, 1871, and 1875 are not of primary relevance in the empirical analysis, the population data allow a consistent and descriptive analysis of

[35] An increase in adult longevity before the demographic transition has been documented in other countries by Boucekkine *et al.* (2003) and de la Croix and Licandro (2015).

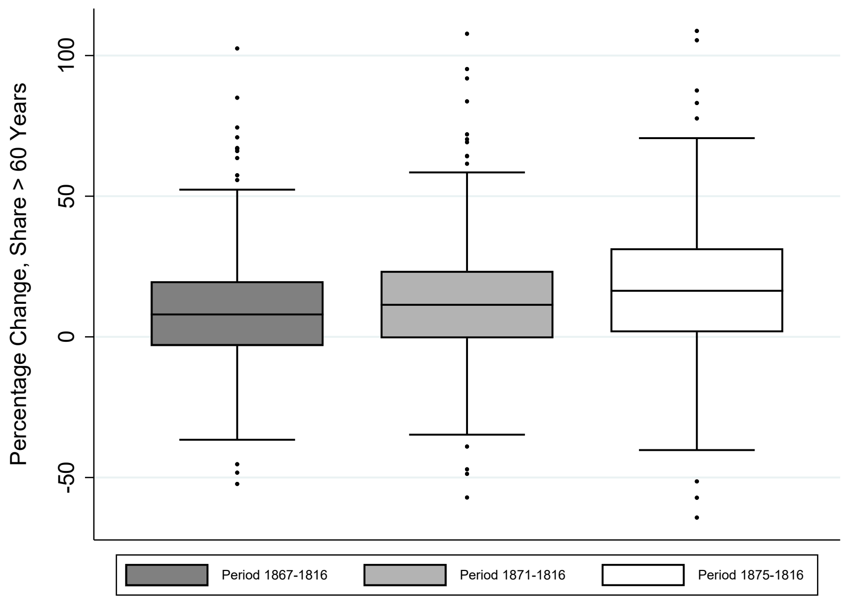

Figure 2.7: *Percentage Change in Population Share over Age 60*

Data sources: Becker et al. (2014) and Galloway (2007).

the old population share in 1816. The distributions show that the share of individuals aged 60 years or older has increased in most counties. For example, the old population share has increased (on average by 16.81%) by its median value of 16.37% from 1816 to 1875.[36] The indicated increase in the old age group would not have been possible if the age-specific death rates before age 60 would have prevailed since 1816 because more individuals must have survived at least until age 60 such that the respective old population share increases. Hence, the increase in the old population share across counties also points to an increase in adult longevity over the 19th century.

Summing up, the mortality transition in Prussia is an overlooked development in the literature. The improvement in life expectancy has not just resulted in population growth but its age-specific component increased the labor force relatively more than the new inflow

[36]The averages and median values are smaller for the percentage changes between 1871, 1867, and 1816. The distributional statistics of Figure 2.7 can be found in Table B.5 in the Appendix.

of children. The relative increase in the labor force leads to a lower young dependency ratio and the establishment of new industrial technologies changing the structure of the economy. There is a plain demographic dividend.

2.6 Conclusion

The most fundamental structural change in Western economies is marked by the Industrial Revolution leading to sustained economic growth. Next to the adoption of new, industrial technologies, a population structure favoring a large labor force might be crucial for the implementation and establishment of the industrial sector. This paper analyzes the effect of the population structure on industrialization in Prussia over the 19th century. Using a micro-regional panel data of 323 Prussian counties, variation in the population structure induced by Napoleonic wars and Malthusian checks allows me to use the pre-industrial young dependency ratio as an IV for the young dependency ratio during the two phases of industrialization. This paper provides empirical evidence that a smaller young dependency ratio is significantly related to greater industrialization. The baseline result is confirmed in panel estimates with period and county fixed effects. Moreover, the cross-sectional analysis shows that a smaller young dependency ratio facilitates industrialization in the textile industry and to a less extent in the industries outside metal and textile. The sector-specific demands for labor are further analyzed with respect to the complementary effect of education having a negative effect on the textile industry and a positive effect on the other industry sectors. These sector-specific characteristics must be taken into account when making statements about the importance of the population structure and education in the process of industrialization.

The paper suggests that a lower young dependency ratio in a pre-demographic transition environment is the result of an increase in life expectancy at higher ages. The mortality transition preceding the fertility transition triggered by the quantity-quality trade-off is in line with the chronological sequence of the demographic transition. It is an overlooked channel in the literature. This mechanism and in general the implications of population dynamics on the structure of the economy should be addressed more in the literature on structural change. In this context, a fruitful direction for future research would be to analyze the implications of the demographic transition including non-linearities between population growth and economic developments and an aging population on the economic structure.

Chapter 3

Disease and Development – The Predicted Mortality Instrument Revisited[1]

3.1 Introduction

In their seminal study, Acemoglu and Johnson (2007) analyze the effect of life expectancy on economic growth. Exploiting exogenous changes in health conditions in the context of the international epidemiological transition in the 1940s, the authors introduce a novel instrument: the so-called predicted mortality instrument. In particular, medical innovations during this time are assumed to result in a drop in mortality rates for a set of thirteen infectious diseases to zero over the period 1940-1980. Instrumenting changes in life expectancy at birth by initial mortality rates of infectious diseases before the medical innovations in the first stage, Acemoglu and Johnson (2007) find a significant and positive second-stage effect of life expectancy at birth on population growth and the total number of births while they identify a significant and negative effect on GDP per capita. The latter result challenged preceding findings in the literature on the positive effect of life expectancy on economic

[1]This chapter is joint work with David Kreitmeir.

performance (e.g. Bloom *et al.*, 1998; Lorentzen *et al.*, 2008; Gallup and Sachs, 2001) and has been proven to be influential not only in the academic discourse but also has been the foundation of policy advice (see for instance Spence and Lewis, 2009; Jamison *et al.*, 2013). However, it has been criticized for not accounting for initial life expectancy (Bloom *et al.*, 2014; Acemoglu and Johnson, 2014) or the demographic transition (Cervellati and Sunde, 2011). Being aware of the critique, the empirical strategy and the underlying data have since still been widely applied in the literature (Hansen, 2013; Klasing and Milionis, 2020; Acemoglu *et al.*, 2020, among others). Although the data and replication code of Acemoglu and Johnson (2007) are available, no study has so far investigated the robustness of their findings concerning the historical data used and the implicit assumptions imposed by authors during the construction process of the predicted mortality instrument.

In this study, we replicate Acemoglu and Johnson (2007) in a narrow and in a wide sense. First, we re-digitize the sources for mortality rates of infectious diseases consulted by the authors. We correct discrepancies in the published mortality rates in Acemoglu and Johnson (2007) from their original counterparts. In addition, we collect mortality rates from various historical sources to fill gaps in the referenced sources. Drawing on our rich historical data set, we construct four different predicted mortality instruments. We do so to investigate the robustness of the main findings in Acemoglu and Johnson (2007) to different assumptions during the construction process. In particular, we only rely on country-level mortality rates exclusively for the first definition of our predicted mortality rate instrument. For the second definition, we supplement country-level rates with town-level rates if no information is available at the country level. Third, country-level rates are replaced whenever town-level information is available during the construction of the predicted mortality rate instrument. The dismantling of the predicted mortality instrument in this way is motivated by the observed differences in absolute rates and the relative importance of diseases between country- and town-level areas. Lastly, we create an instrument representing the maximum mortality rate for a country based on the available data.

In line with Acemoglu and Johnson (2007), we find a significant and positive effect of change in life expectancy–instrumented by the respective predicted mortality instrument–on population growth and the number of total births while we detect no significant effect on total GDP irrespective of the construction of the instrument. For GDP per capita, we can replicate the significant and negative second-stage effect of life expectancy at birth for three of the four instrument definitions. In particular, relying exclusively on country-level information for the construction of the instrument results in a loss of significance.

While our replication results confirm the authors' findings of no pre-existing trends in life expectancy at birth, population growth, GDP, and GDP per capita growth for the period 1900-1940, we detect a negative and significant pre-existing relationship between life expectancy at birth in the decade before the epidemiological transition and the original predicted mortality instrument of Acemoglu and Johnson (2007) as well as our three instrument definitions incorporating town-level mortality rates. In conjunction with the country-level predicted mortality instrument exhibiting the highest effective F-statistic of all refined instruments, our results suggest that future work should rely on our country-level predicted mortality-rate instrument for identification.

Drawing on our rich data set of historical mortality rates, we in the next step address the concern that missing information on mortality rates for specific diseases might introduce substantial measurement biases. We, therefore, focus on a homogeneous sample of countries for which we have sufficient information to precisely describe the epidemiological environment in the 1940s. The estimation results for this new sample confirm our previous findings.

The rest of the paper is structured as follows. Section 3.2 describes the re-digitization process and the empirical specification. Section 3.3 presents the replicated results in a narrow and a wide sense depending on the instrument's construction. Section 3.4 concludes.

3.2 Data and Empirical Framework

3.2.1 Data

Acemoglu and Johnson (2007) draw data on mortality rates of 13 infectious diseases for their baseline analysis from two sources: the League of Nations (WHO, 1951, 1952) and the International Vital Statistics (Federal Security Agency, 1947, Table 20 pp. 174).[2] The 13 infectious diseases under consideration are: typhoid fever, plague, scarlet fever, whooping cough, diphtheria, tuberculosis (all forms), malaria, influenza, smallpox, measles, typhus fever, pneumonia, and cholera.[3] We re-digitize the referenced sources and supplement them by information digitized from the League of Nation's 1937 annual epidemiological report (LNHO, 1939), the United States Biostatistics (USDOC and USCB and USOIAA, 1944a,b,c,d,e,f,g,h,i,j, 1945a,b,c,d,e,f,g,h), and the Korean Vital Statistics 1938-1942 (Government-General of Korea, 1940-1942, 1943, 1944).

We follow the procedure of Acemoglu and Johnson (2007) outlined in their Appendix C Section F to determine the mortality rate for a country in 1940. In particular, Table C1 in Appendix C Section F reports the sources and the reference years used for each of the 47 countries in their baseline sample. For their extended sample the authors state that they "use IVS for Egypt in 1940 ("Health Bureau Areas") and, where relevant, for South Africa, IVS for 1939 ("Europeans"). For all other countries, we use the League of Nations"(Acemoglu and Johnson, 2007, Appendix C, p. 12). To set the reference year for sources not covered in Acemoglu and Johnson (2007) and collected by us, we follow the authors' *rule* for League of Nations data: i.e. we "use the information for 1940 or the nearest available year" (Appendix C Section F, p. 12).[4]

[2]For more details see Acemoglu and Johnson (2007) Appendix C Section F (p. 12).

[3]Acemoglu and Johnson (2007) discuss 15 diseases including dysentery and yellow fever but do not provide the mortality rates for these two diseases. Our replication process moreover reveals that the authors indeed do not consider dysentery and yellow fever for the construction of the predicted mortality instrument.

[4]For the case of no available data for 1940 and equivalent time differences to 1940 of data points before and after 1940, we use the closest year before 1940 to safeguard against the potential influence of the epidemiological

Importantly, WHO (1952), LNHO (1939) (both referred to as LoN V2 henceforth), and Government-General of Korea (1940-1942, 1943, 1944) exclusively state the number of deaths by disease and do not in addition report mortality rates (per 100,000 population) as is the case for WHO (1951) (LoN V1 henceforth), the international Vital Statistics (IVS henceforth) or the US Biostatistics (BioStat henceforth).[5] We calculate corresponding mortality rates for these sources using our unique historical data set on population size for the period 1930-1946. Crucially, we account for the equivalence of country boundaries referenced in the mortality source documents and our population data set when calculating mortality rates to minimize measurement errors (see Section C.3.1 in the Appendix for more details). For instance, we digitize information on the population size for the Federation of Malaya to match the entries in LoN V2 and not rely on population data provided by Maddison (2003) who covers contemporary Malaysia, which additionally comprises the regions of Sarawak and North Borneo. In the case of Bangladesh, India, and Pakistan, we collect population numbers at the district level in British India to attribute districts to their respective contemporary country. Since LoN V2 reports deaths by disease only at the province/state level, we use our granular population data to distribute the numbers of deaths in a partitioned province/state to their contemporary country by the share of the population within contemporary country boundaries to obtain the best possible approximation of the country-level mortality rate (see Section C.3.2 in the Appendix for more information). We examine the accuracy of our calculated mortality rates by juxtaposing them–if available–against the mortality rates in the original source documents. Tables C.13 to C.59 in Section C.3.4 show that our calculated mortality rates (denoted "No. Deaths") are nearly identical to the mortality rates provided in the original documents (denoted "Rate") for the baseline sample of Acemoglu and Johnson

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transition after 1940. Since this case is not explicitly discussed in Acemoglu and Johnson (2007), we apply the same approach to League of Nations data not covered in Table C1 of Appendix C in Acemoglu and Johnson (2007).

[5] We collectively refer to both sources WHO (1952) and LNHO (1939) as "LoN V2", as they complement each other: i.e. both are reported by the League of Nations and the time periods covered do not overlap (1935-1937 for LNHO, 1939, and 1939-1946 for WHO, 1952).

(2007). In Section C.3.5 of the Appendix, we present mortality rates across sources for 77 additional countries.

Comparing digitized mortality rates of referenced sources in Acemoglu and Johnson (2007) with the rates published by the authors (both highlighted in bold) reveal unexplained differences (see Table C.13 to Table C.59 in Section C.3.4 of the Appendix). We identify the following patterns. First, Acemoglu and Johnson (2007) use data from WHO (1951, 1952) instead of the referenced IVS in several instances.[6] Second, we identify "clusters" of mortality rates. Mortality rates for Malaria, Influenza, and Pneumonia are for example identical in the case of Costa Rica, Guatemala, and Honduras (see Table C.23, C.31, C.32). We presume that Acemoglu and Johnson (2007) resort to the assumption of equivalent rates for countries in proximity to each other due to missing data for these diseases in their referenced sources. This assumption is also evident in the case of Korea Rep. which is not covered in their original sources and exhibits the same mortality rates as China except for tuberculosis and cholera (Table C.21 and C.37). Our new historic data set set addresses these deficits and provides a uniquely comprehensive picture of each country's historical mortality by disease before the epidemiological transition. Third, the authors state in footnote 84 in their Appendix C Section F (p. 12) that they "construct an unweighted average of death rates by disease across all available cities (for some countries the city coverage varies by disease)." We follow the authors and construct the unweighted town-level averages from the rates published in WHO (1951) and LNHO (1939). We present them in the column denoted "LoN Town All". Cross-validating the mortality rates with the data of Acemoglu and Johnson (2007) reveals that the authors appear to treat town-level mortality rates published by WHO (1951) preferential to available country-level rates. This is for instance the case for Australia (Table C.14) or Italy (Table C.36).[7] While diagnosis and reporting of the causes of death

[6]This appears to be the case except for Chile (Table C.20), Costa Rica (Table C.23), Greece (Table C.30), Guatemala (Table C.31), Peru (Table C.48), and Venezuela (Table C.59).

[7]As for LoN V2, we collectively refer to WHO (1951) and LNHO (1939) as "LoN Town as both sources were reported by the League of Nations, and their covered time periods do not overlap. In addition to the average

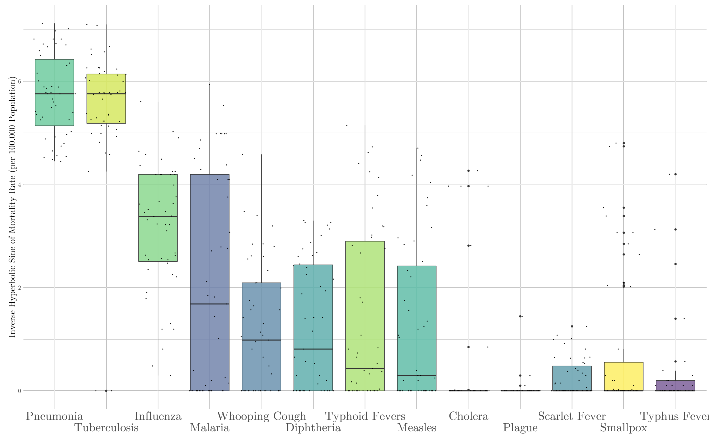
might be more reliable in urban areas and reporting biases might explain differences in rural and urban mortality rates, any observed differences could also be the result of for instance diverging age structures, facilitated transmission of infectious diseases in densely populated cities or hygienic conditions. We consequently believe that there is no clear theoretical argument to prefer *a priori* either country- or town-level rates but rather view this as an empirical question.

Figure 3.1(a) illustrates the distribution of mortality rates for each disease underlying the construction of the instrument in Acemoglu and Johnson (2007). These distributions are compared against the decomposed distributions of mortality rates by disease at the country level, Figure 3.1(b), and town level, Figure 3.1(c). In particular, the latter presents the distribution of town-level averages while the former presents the *selected* rate from all sources with information on country-level rates. We discuss the details of the applied procedure in Section C.3.3 in the Appendix. Figures 3.1(b) and 3.1(c) show that we can replicate the relative importance of infectious diseases at the country level measured by the median mortality rate. While the extraordinary role of pneumonia and tuberculosis is confirmed at the town level, our data suggest that the relative importance of diseases and the absolute mortality rate diverge from the country-level rates in urban areas.[8] We take these observed differences into account when we construct our refined predicted mortality rate instruments (see Section 3.2.2 for more details). Noteworthy, the four diseases contributing least variation to the predicted mortality instrument are scarlet fever, typhus fever, plague, and smallpox.[9]

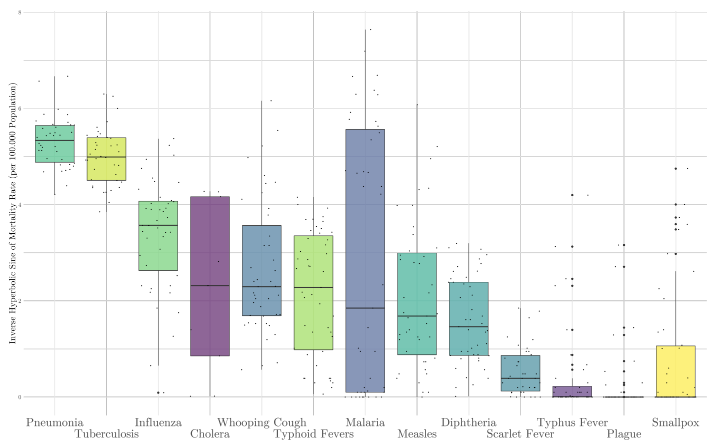
across all towns ("All"), we report town-level averages when excluding mortality rates of town aggregates ("Excl. Agg"), or if we additionally exclude years with missing information on at least one city ("Excl. Agg & Miss."). Finally, we present if available only the average across town-level aggregates ("Agg.").

[8]Data on mortality rates for plague and cholera are not available at the town level.

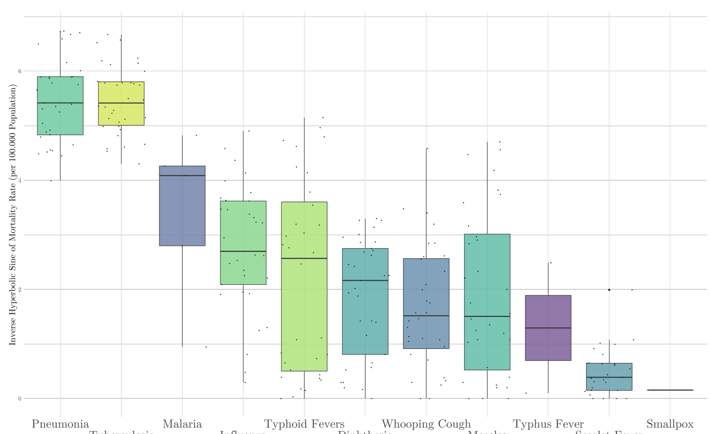
[9]Note that cholera constitutes a special case here with only four data points even at the country level.



(a) Mortality Rates by Disease (Acemoglu and Johnson, 2007)



(b) Mortality Rates by Disease (Country Level)



(c) Mortality Rates by Disease (Town Level)

Figure 3.1: *Distribution of Mortality Rates by Disease*

Notes: Diseases are ordered (in descending order) by their median value.

3.2.2 Empirical Specification

Following Acemoglu and Johnson (2007), we focus on long-run changes in dependent and independent variables in a 2SLS *long-difference* estimation framework with two time periods, 1940 and 1980. The second-stage long-difference regression model can be generally written as:[10]

$$\Delta y_i = \pi \Delta x_i + \Delta \mu + \Delta e_i, \tag{3.1}$$

where y_{it} denotes changes in log population size, log total births, log GDP, or log GDP per capita and the endogenous independent variable x_{it} instrumented by the predicted mortality instrument M_{it}^I is life expectancy at birth. Formally, the corresponding first-stage equation takes the form:

$$\Delta x_i = \phi \Delta M_i^I + \Delta \widetilde{\mu} + \Delta u_i. \tag{3.2}$$

Standard errors are clustered at the country level with Bangladesh, India, and Pakistan representing one cluster.

Data on outcome and independent variables are directly drawn or calculated from the data sets provided online by Acemoglu *et al.* (2020) which is an extended version of the original data set of Acemoglu and Johnson (2007). We use the recent version of the data set to account for potential corrections by the authors since the original publication in 2007.[11] We abstain from supplementing or correcting the original data to ensure that any differences in results purely stem from differences in the predicted mortality instrument (M_i^I). In particular, Acemoglu and Johnson (2007) define the predicted mortality instrument as the sum of each country's initial mortality rate in 1940 from infectious diseases until the global medical intervention. Formally, the predicted mortality instrument for country i at

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[10]Note that the *long-difference* regression is equivalent to estimating a panel model with two observations per country (1940 and 1980) and country and time fixed effects.

[11]The data is available on the *Review of Economics* website: `https://academic.oup.com/restud/article/87/4/1565/5552814`.

time t is:

$$M_{it}^{I} = \sum_{d \in D} [(1 - I_{dt}) M_{di40} + I_{dt} M_{dFt}], \tag{3.3}$$

where M_{di40} is the mortality in 1940 for country i from disease $d \in D$, with D denoting the set of 13 diseases. I_{dt} is a dummy for intervention for disease d that equals 1 for all dates after the intervention; M_{dFt} is the mortality from disease d at the health frontier of the world at time t which is assumed to be zero (see Acemoglu and Johnson, 2007). We choose a more conservative approach than the authors and assume that the intervention took place during the 1940s for all 13 diseases (i.e. $I_{dt} = 1 \ \forall \ t > 1940$). We opt to do so for the following reasons. First, the predicted mortality instrument published by Acemoglu and Johnson (2007) is found to be equal to the sum of mortality rates in 1940 for most countries, while we observe a discrepancy between the instrument and the sum of mortality rates in 1940 for others which we could not trace back to either the omission of dysentery and yellow fever or baseline intervention dates after the 1940s for cholera, smallpox, and measles. [12] Second, we can address potential concerns about the exact timing of medical innovations during the epidemiological revolution.

We go beyond the predicted mortality instrument in Acemoglu and Johnson (2007) by dismantling the components of the final instrument. In particular, we construct four different instruments that differentiate themselves concerning the assumptions placed upon them. Our first instrument is the *country-level* predicted mortality instrument. We exclusively rely on mortality at the aggregate level to construct the instrument.[13] Second, we supplement the *country-level* mortality rates with the average mortality across towns for a disease if no country-level value is available. We refer to this instrument as "country-level supplemented

[12]We digitized data on deaths by dysentery and yellow fever from the referenced sources and calculated the corresponding mortality rates for these diseases to investigate if the observed deviations derive from the omission of these diseases. The baseline intervention dates for cholera, measles, and smallpox are the 1950s, 1960s, and 1950s, respectively (see Acemoglu and Johnson, 2007, Appendix B, p. 1). The sum of mortality rates for the 13 infectious diseases in 1940 is presented in parentheses after the published predicted mortality instrument by Acemoglu and Johnson (2007) in Table C.13 to C.136 in Section C.3.4 and C.3.5 of the Appendix.

[13]For more details on how we select the preferred *country-level* source for a disease see Appendix Section C.3.3.

with town-level". This version of the instrument can be interpreted as using the "best available data". Third, we treat town-level as preferential to country-level data and replace country-level rates with town-level averages whenever the latter are available ("country-level replaced with town-Level"). Note that these three instruments by construction allow us to investigate the sensitivity of results to the observed differences between country- and town-level rates (see Section 3.2.1). Fourth, the predicted mortality instrument is defined as the sum of the highest available mortality rate of each disease, independent of country or town level. This definition represents the maximum exposure of a country to infectious diseases that can be constructed with the available data. The descriptive statistics of our four refined instruments are contrasted with the original instrument used in both studies in Table 3.1. Our constructed instruments have a lower median mortality rate than the original instrument in Acemoglu and Johnson (2007) while only the *maximum* predicted mortality instrument exhibits a higher mean value.

Table 3.1: *Descriptive Statistics - Predicted Mortality Instrument*

Predicted Mortality Rate Instrument Definition	N	Mean	SD	Min	Median	Max
Acemoglu and Johnson (2007)	47	0.473	0.280	0.121	0.409	1.126
Country-Level	47	0.339	0.259	0.003	0.274	1.147
Country-Level supplemented with Town-Level	47	0.409	0.332	0.003	0.290	1.672
Country-Level replaced with Town-Level	47	0.409	0.276	0.003	0.340	1.029
Maximum	47	0.485	0.366	0.003	0.368	1.780

Figure 3.2 compares the four predicted mortality instruments with the predicted mortality instrument of Acemoglu and Johnson (2007) for each country in their baseline sample. We find the largest deviation from the 45°-line for the *country-level* instrument (Panel A). In particular, the *country-level* predicted mortality instrument is substantially lower than in Acemoglu and Johnson (2007) for several poor and middle-income countries depicted in the bottom right corner below the 45°-line. Supplementing (Panel B) and replacing (Panel C) *country-level* rates with town-level averages moves the rates gradually closer to the 45°-line. This is consistent with our aforementioned observation of a preference for town- over country-level rates in Acemoglu and Johnson (2007) (see Section 3.2.1). The similarity

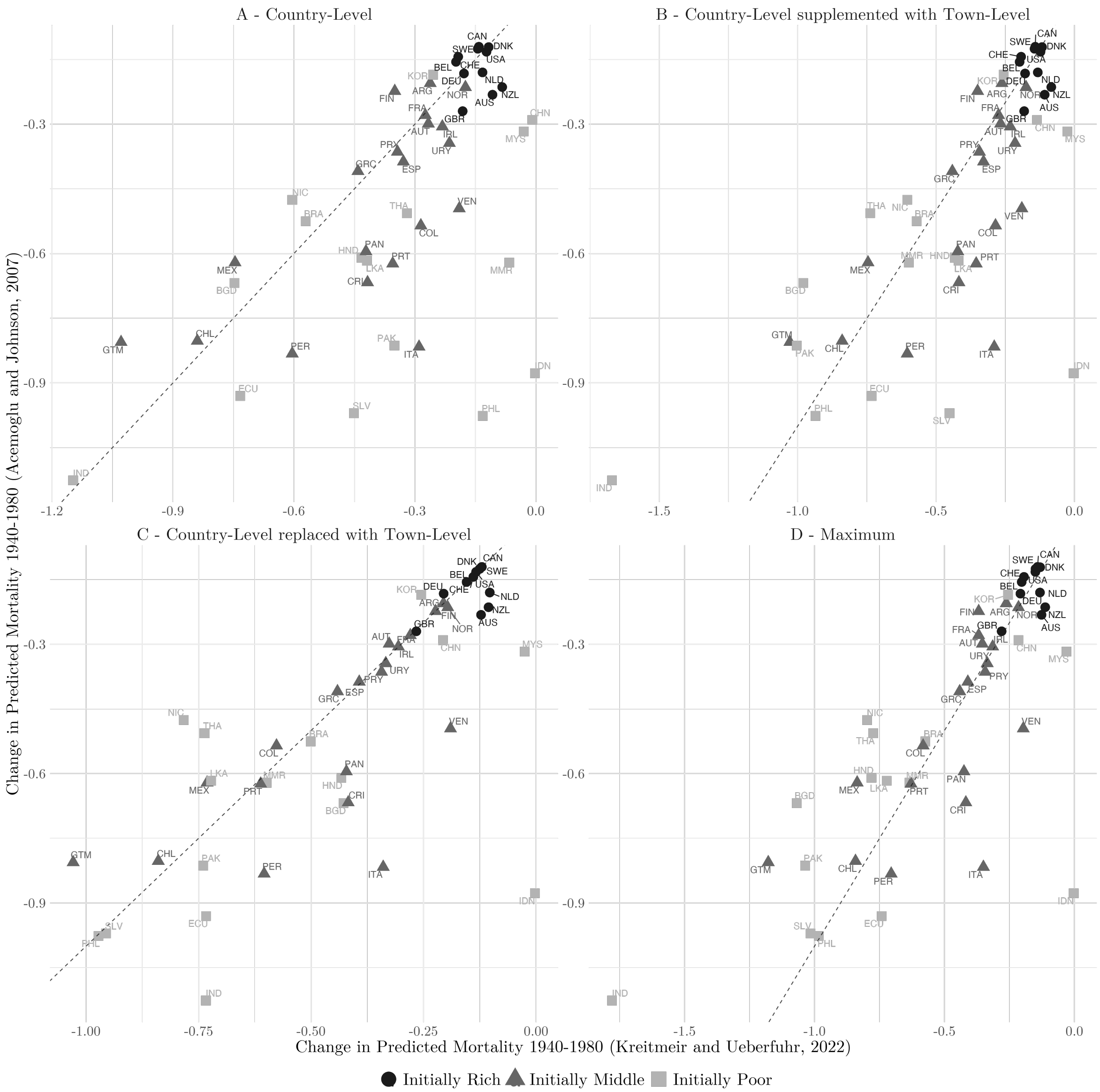


Figure 3.2: *Comparison of Change in Predicted Mortality Instruments*

Notes: The sample consists of the 47 baseline countries in Acemoglu and Johnson (2007). Initially rich, initially middle, and initially poor countries are depicted by black circles, grey triangles, respectively light-grey squares. The 45° ray (dashed line) is presented.

of Panel C and D, moreover, suggests that *town-level* rates constitute the maximum for a majority of countries in the baseline sample. A finding consistent with the notion that higher population density in urban areas facilitates the spread of infectious diseases.

3.3 Replication and Extension

This section replicates Acemoglu and Johnson (2007) in a narrow and a wide sense. First, we replicate the main results in a narrow sense using the original predicted mortality instrument of Acemoglu and Johnson (2007) and our four refined predicted mortality instruments. Then, we replicate Acemoglu and Johnson (2007) in a wide sense by including only countries in the sample that recorded disease-specific mortality rates sufficiently such that the epidemiological environment is well depicted. In particular, we only include countries that have disease-specific mortality rates for at least nine out of 13 infectious diseases and non-missing values for pneumonia and tuberculosis–the two major causes of death in the 1940s. Each table reports long-difference regressions for 1940 and 1980. Long-difference regressions for 1940 and 2000 can be found in Appendix C.1.

3.3.1 Replication of Acemoglu and Johnson (2007)

Table 3.2 shows the first-stage relationship and reduced-form regressions in Acemoglu and Johnson (2007) using the original predicted mortality instrument in Column 1 as well as our four refined predicted mortality instruments in Columns 2-5.

Panel A presents the first-stage relationship between log life expectancy at birth and predicted mortality when estimating equation (3.2). The estimated coefficients in Column 2-5 are all negative and statistically significant at the 1 percent level irrespective of the refined instrument used. The magnitude of the coefficients as well as their 95% confidence intervals (in brackets) are comparable to the results of Acemoglu and Johnson (2007). It is, however, important to keep in mind that the different coefficients imply variously increases in life expectancy since the mean improvements between 1940 and 1980 vary for each refined instrument (see Table 3.1). While the coefficient in Acemoglu and Johnson (2007) of -0.445 implies an increase in life expectancy of 21.0 percent (10.4 years), the estimated coefficients of -0.399 (Column 2), -0.303 (Column 3), -0.388 (Column 4) and -0.307 (Column 5) correspond to an increase of 13.5 percent (6.7 years), 12.4 percent (6.1 years), 15.9 percent (7.8 years), and 14.9 percent (7.3 years) in life expectancy, respectively. These figures imply

Table 3.2: *Acemoglu and Johnson (2007) - First-Stage and Reduced-Form Estimates*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(LEB)					
Change in Predicted Mortality	-0.445***	-0.399***	-0.303***	-0.388***	-0.307***
	(0.064)	(0.065)	(0.059)	(0.085)	(0.056)
	[-0.573,-0.317]	[-0.531,-0.268]	[-0.422,-0.183]	[-0.559,-0.216]	[-0.421,-0.193]
Adjusted R^2	0.493	0.333	0.313	0.358	0.397
Countries	47	47	47	47	47
Number of Clusters	45	45	45	45	45
B. Dependent Variable: Change in Ln(Population)					
Change in Predicted Mortality	-0.743***	-0.575***	-0.504**	-0.725***	-0.470***
	(0.149)	(0.188)	(0.192)	(0.132)	(0.160)
	[-1.042,-0.443]	[-0.954,-0.196]	[-0.892,-0.117]	[-0.991,-0.459]	[-0.793,-0.147]
Adjusted R^2	0.276	0.131	0.171	0.254	0.182
Countries	47	47	47	47	47
Number of Clusters	45	45	45	45	45
C. Dependent Variable: Change in Ln(GDP)					
Change in Predicted Mortality	-0.140	-0.198	0.043	-0.247	0.050
	(0.261)	(0.426)	(0.300)	(0.201)	(0.251)
	[-0.667,0.386]	[-1.058,0.661]	[-0.562,0.648]	[-0.651,0.158]	[-0.456,0.555]
Adjusted R^2	-0.014	-0.008	-0.021	0.003	-0.020
Countries	47	47	47	47	47
Number of Clusters	45	45	45	45	45
D. Dependent Variable: Change in Ln(GDP per capita)					
Change in Predicted Mortality	0.585***	0.345	0.510***	0.473***	0.487***
	(0.168)	(0.263)	(0.127)	(0.172)	(0.117)
	[0.247,0.924]	[-0.184,0.874]	[0.254,0.765]	[0.127,0.82]	[0.251,0.722]
Adjusted R^2	0.160	0.032	0.172	0.093	0.193
Countries	47	47	47	47	47
Number of Clusters	45	45	45	45	45

Notes: Column 1 presents the replicated results for Table 5 Panel A Column 2, 1940-1980, and Table 7 Panel B, 1940-1980, in Acemoglu and Johnson (2007). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Figures in brackets are 95% confidence intervals based on cluster-robust estimates of the variance matrix.

that the changes in the refined predicted mortality account between 35.9 to 46.0 percent of the increase in life expectancy between 1940 and 1980.[14] Thus our results confirm the qualitative finding of Acemoglu and Johnson (2007) that the international epidemiological transition played a key role in closing the health gap between initially rich versus initially poor and middle-income countries over the period 1940-1980.[15]

Panel B presents the reduced-form relationship between the change in log population and the change in predicted mortality. We find a highly significant and negative effect for

[14] The mean improvements for Columns 2-5 can be retrieved from Table 3.1. Mean life expectancy in 1940 is 49.3 and the actual improvement in life expectancy between 1940 and 1980 is 17 years in Acemoglu and Johnson (2007).

[15] Figure C.1 in Appendix C.2 shows the first-stage relationship with the original, the country-level, and the country-level replaced with town-level predicted mortality instrument.

all our refined instruments. The estimate that replicates the result in Acemoglu and Johnson (2007) most closely in terms of magnitude, significance, and confidence interval is the *country-level replaced with town-level* predicted mortality instrument (Column 4). This finding suggests that the health conditions in urban areas might be crucial for overall population growth within a country.

Panel C and D present the reduced-form estimates of predicted mortality for the two economic performance variables: log GDP and log GDP per capita. In line with Acemoglu and Johnson (2007), coefficients for all refined instruments are statistically insignificant in the case of total GDP but significant and positive in the case of GDP per capita except for our refined instrument exclusively relying on country-level mortality rates.[16]

Following Acemoglu and Johnson (2007), we conduct a falsification exercise to determine whether changes in predicted mortality are related to pre-existing trends in life expectancy or any of the outcome variables during the pre-period from 1900 to 1940. Our results reveal a pre-trend in the decade before the epidemiological transition for the original instrument of Acemoglu and Johnson (2007) as well as for our three refined instruments which do not exclusively rely on country-level mortality rates (Panel A in Table 3.3). In the case of the change in log life expectancy over the longer period from 1900 to 1940, we find either no significant relationship for our refined instruments or even a highly significant *positive* effect for the *country-level* instrument (Panel B). The results in Panel C-E confirm the absence of any pre-existing relationship between the predicted mortality instrument and population size, total births, or economic output before the onset of the epidemiological transition. [17] We conclude that pre-existing trends can not be ruled except for the *country-level* instrument.[18]

[16]The scatter plots in Figure C.2 in Appendix C.2 illustrate the reduced-form regressions for all outcome variables used in Acemoglu and Johnson (2007). Moreover, the replicated first-stage and reduced-form regressions are qualitatively the same for low- and middle-income countries as shown in Table C.1 in Appendix C.1.

[17]The results of the falsification exercise are qualitatively unaltered for low- and middle-income countries (see Table C.3 in Appendix Section C.1).

[18]The scatter plots in Figure C.3 in Appendix C.2 illustrate the relationship between the country-level predicted mortality instrument and the change in life expectancy over different time periods for the baseline and for the low- and middle-income country sample.

Table 3.3: *Acemoglu and Johnson (2007) - Falsification Exercise*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(LEB), 1930-1940					
Change in Predicted Mortality	-0.101***	-0.041	-0.069**	-0.124***	-0.070**
	(0.031)	(0.036)	(0.027)	(0.040)	(0.026)
	[-0.164,-0.038]	[-0.114,0.032]	[-0.123,-0.015]	[-0.205,-0.043]	[-0.123,-0.016]
Adjusted R^2	0.290	0.012	0.214	0.344	0.243
Countries	33	33	33	33	33
Number of Clusters	31	31	31	31	31
B. Dependent Variable: Change in Ln(LEB), 1900-1940					
Change in Predicted Mortality	0.135	0.331***	0.103	0.144	0.139*
	(0.106)	(0.103)	(0.084)	(0.133)	(0.082)
	[-0.078,0.348]	[0.124,0.537]	[-0.065,0.272]	[-0.123,0.412]	[-0.027,0.306]
Adjusted R^2	0.015	0.169	0.009	0.019	0.045
Countries	47	47	47	47	47
Number of Clusters	45	45	45	45	45
C. Dependent Variable: Change in Ln(Population), 1900-1940					
Change in Predicted Mortality	-0.171	-0.007	-0.035	-0.165	-0.044
	(0.151)	(0.142)	(0.152)	(0.119)	(0.133)
	[-0.475,0.134]	[-0.293,0.28]	[-0.342,0.272]	[-0.405,0.076]	[-0.313,0.224]
Adjusted R^2	0.004	-0.023	-0.022	0.001	-0.020
Countries	45	45	45	45	45
Number of Clusters	45	45	45	45	45
D. Dependent Variable: Change in Ln(GDP), 1900-1940					
Change in Predicted Mortality	0.009	0.158	0.211	0.249	0.253*
	(0.237)	(0.251)	(0.147)	(0.276)	(0.132)
	[-0.474,0.493]	[-0.354,0.671]	[-0.088,0.510]	[-0.316,0.813]	[-0.017,0.522]
Adjusted R^2	-0.034	-0.024	-0.006	-0.014	0.013
Countries	31	31	31	31	31
Number of Clusters	31	31	31	31	31
E. Dependent Variable: Change in Ln(GDP per capita), 1900-1940					
Change in Predicted Mortality	0.025	0.165	0.184*	0.291	0.227**
	(0.169)	(0.168)	(0.094)	(0.203)	(0.097)
	[-0.320,0.370]	[-0.179,0.509]	[-0.009,0.376]	[-0.124,0.706]	[0.028,0.426]
Adjusted R^2	-0.034	-0.014	0.006	0.020	0.039
Countries	31	31	31	31	31
Number of Clusters	31	31	31	31	31

Notes: Column 1 presents the replicated results for Figure 6, 1930-1940, and Table 7 Panel A, 1900-1940, in Acemoglu and Johnson (2007). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Figures in brackets are 95% confidence intervals based on cluster-robust estimates of the variance matrix.

Table 3.4 reports the 2SLS estimates of the effect of log life expectancy on log population, log total births, log total GDP, and log GDP per capita. The results confirm the reduced-form relationships. Life expectancy instrumented by our revised predicted mortality instruments has a highly significant and positive effect on population growth and the change in the total number of births (Panel A and B). These results are consistent with Acemoglu and Johnson (2007). The magnitude of the estimated coefficients is closer to the results in Acemoglu and Johnson (2007) once we allow for town-level rates being incorporated in the construction of

Table 3.4: *Acemoglu and Johnson (2007) - 2SLS Estimates*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(Population)					
Change in Ln(LEB)	1.669***	1.440***	1.666***	1.869***	1.532***
	(0.353)	(0.381)	(0.508)	(0.392)	(0.392)
	[1.057,2.724]	[0.755,2.814]	[0.993,∞]	[1.177,3.109]	[0.951,3.607]
Effective F-Statistic	48.78	37.25	26.02	20.77	29.65
Countries	47	47	47	47	47
Number of Clusters	45	45	45	45	45
B. Dependent Variable: Change in Ln(Total Births)					
Change in Ln(LEB)	2.529***	2.045***	2.719***	2.613***	2.498***
	(0.494)	(0.438)	(0.533)	(0.580)	(0.427)
	[1.54,3.819]	[0.914,3.196]	[1.803,∞]	[1.461,4.274]	[1.665,4.276]
Effective F-Statistic	51.75	38.64	26.68	20.65	30.15
Countries	45	45	45	45	45
Number of Clusters	43	43	43	43	43
C. Dependent Variable: Change in Ln(GDP)					
Change in Ln(LEB)	0.315	0.496	-0.142	0.636	-0.162
	(0.588)	(1.048)	(1.005)	(0.529)	(0.832)
	[-0.705,2.083]	[-1.157,4.815]	[-1.538,∞]	[-0.373,2.185]	[-1.423,4.168]
Effective F-Statistic	48.78	37.25	26.02	20.77	29.65
Countries	47	47	47	47	47
Number of Clusters	45	45	45	45	45
D. Dependent Variable: Change in Ln(GDP per capita)					
Change in Ln(LEB)	-1.316***	-0.865	-1.684***	-1.220***	-1.585***
	(0.390)	(0.670)	(0.562)	(0.452)	(0.491)
	[-2.109,-0.315]	[-1.900,1.936]	[-2.747,2.053]	[-2.316,-0.174]	[-2.483,0.523]
Effective F-Statistic	48.78	37.25	26.02	20.77	29.65
Countries	47	47	47	47	47
Number of Clusters	45	45	45	45	45

Notes: Column 1 presents the replicated results for Table 8 Panel A, 1940-1980, Table 8 Panel B, 1940-1980, Table 9 Panel A, 1940-1980, and Table 9 Panel B, 1940-1980, in Acemoglu and Johnson (2007). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The IV estimates were obtained using the Stata command *ivreg2* (Baum *et al.*, 2002). The *effective F-statistic* (Olea and Pflueger, 2013), allowing for errors that are not conditionally homoskedastic and serially uncorrelated, is obtained using the Stata command *weakivtest* (Pflueger and Wang, 2015). The (Anderson-Rubin) 95% confidence intervals presented in brackets are weak-IV-robust ones obtained using the Stata command *weakiv* (Finlay *et al.*, 2013).

the instrument. The *effective* F-statistic for all refined instruments exceeds the rule-of-thumb cutoff for weak instruments of 10 proposed by Steiger and Stock (1997) with the *country-level* instrument exhibiting the highest first-stage F-statistic of 37.25 and 38.64, respectively.[19]

Further, our results support the overall pattern found by Acemoglu and Johnson (2007) for economic development. In particular, we can replicate the insignificant second-stage effect of log life expectancy at birth on total GDP independent of the applied instrument and a significant and negative effect of life expectancy on GDP per capita for three of our

[19] Following Andrews *et al.* (2019), we report the *effective* F-statistic which "is the preferred statistic for detecting weak instruments in overidentified, nonhomoskedastic settings with one endogenous variable where one uses two-stage least squares or limited information maximum likelihood" (p. 739).

four refined instruments. Only for the *country-level* predicted mortality instrument, the coefficient is imprecisely estimated. Following the recommendation of Andrews *et al.* (2019), we report identification-robust Anderson-Rubin 95% confidence intervals in brackets for inference.[20] The Anderson-Rubin 95% confidence intervals in Panel D indicate that the estimated relationship is not robust to weak instruments for specifications with *country-level supplemented with town-level* and *maximum* predicted mortality instruments. The estimated results are qualitatively equivalent if we only consider low- and middle-income countries (see Table C.2 in the Appendix). When we estimate *long-difference* regressions for the longer time horizon 1940-2000 for both samples we can recover the significant positive effect on population and total births as well as a weak instrument robust significant negative effect on GDP per capita (see Table C.4 and C.5 in the Appendix).[21] In summary, we are able to successfully replicate the qualitative results in Acemoglu and Johnson (2007). Moreover, our results suggest the *country-level* predicted mortality instrument should be viewed as preferential on basis of relevance and the absence of pre-existing trends.

3.3.2 Homogeneous Country Sample

We next investigate whether the results in Acemoglu and Johnson (2007) hold if we restrict the sample to countries with "comparable" information on mortality rates in 1940. In particular, we require countries in this analysis to have non-missing mortality rates for at least nine out of the 13 infectious diseases under consideration. Additionally, the countries need to have non-missing values for pneumonia and tuberculosis (all forms) – the two major causes of death among the 13 infectious diseases in the 1940s (see Figure 3.1 in Section 3.2.1). Therefore, our rich data set on historical mortality rates allows us to address potential concerns that previous findings are the result of measurement error introduced mechanically

[20]Note that in the case of only a single instrument, the Anderson-Rubin confidence intervals are "efficient regardless of the strength of the instruments, and so should be reported regardless of the value of the first-stage F" (Andrews *et al.*, 2019, p. 729).

[21]As mentioned in Acemoglu and Johnson (2007), the latter results should be interpreted with caution due to the impact of the HIV epidemic during the 1980-2000 period.

with missing mortality rates being treated as zero values in the construction of the predicted mortality instrument. Note that countries in our sample that fulfill the aforementioned requirements only have missing values for at most four of the five following infectious diseases: cholera, smallpox, plague, typhus fever, and scarlet fever. Cholera is only available for LoN V2 rates and consequently missing for the majority of countries. The latter four diseases are the diseases with the lowest median mortality rate (see Figure 3.1). Our sample definition alleviates concerns of severe measurement errors in the predicted mortality rate instrument. Since Acemoglu and Johnson (2007) rely on both town-level and country-level information, their sample is set to comprise the same countries as the homogeneous sample for our instruments incorporating town-level rates by assumption.

Table 3.5 reports the 2SLS estimates of life expectancy on the demographic and economic outcome variables in Acemoglu and Johnson (2007) for the homogeneous country sample.[22] Panel A and B report the highly significant and positive effect on population growth and the change in total births for all four refined predicted mortality instruments. Our refined *country-level* instrument exhibits again the largest *effective* F-statistic of all instruments–including the instrument of Acemoglu and Johnson (2007). The estimated second-stage effect on GDP and GDP per capita remains consistent with to our previous findings and those of Acemoglu and Johnson (2007) with the exception of the *country-level* instrument. For this instrument, we find a positive and significant effect on total GDP and no significant effect on GDP per capita. Further, the Anderson-Rubin 95% confidence intervals in brackets indicate that the estimated significant effect of life expectancy in specifications is not robust to weak instruments.

Importantly, the results are qualitatively equivalent if we apply an even more conservative restriction on the sample inclusion: i.e non-missing data for ten out of 13 infectious diseases on top of non-missing mortality rates for pneumonia and tuberculosis (all forms) (see Table

[22]Tables reporting first-stage, reduced-form and falsification estimates for changes in population size, total births and economic output can be found in Appendix C.1.2. Results for a more restrictive sample cutoff–i.e. when we require countries to have at least ten non-missing values in addition to non-missing values for pneumonia and tuberculosis (all forms)–can be found in Appendix C.1.3.

Table 3.5: *2SLS Estimates - Population and Economic Growth*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(Population)					
Change in Ln(LEB)	1.887***	1.843***	1.769***	2.001***	1.638***
	(0.397)	(0.349)	(0.504)	(0.420)	(0.381)
	[1.229,3.213]	[1.046,2.844]	[1.093,∞]	[1.259,3.356]	[1.061,3.594]
Effective F-Statistic	30.43	33.87	28.28	22.49	34.94
Countries	54	45	54	54	54
Number of Clusters	52	45	52	52	52
B. Dependent Variable: Change in Ln(Total Births)					
Change in Ln(LEB)	2.614***	2.330***	2.746***	2.669***	2.548***
	(0.504)	(0.507)	(0.486)	(0.540)	(0.397)
	[1.596,3.94]	[0.941,3.456]	[1.842,5.621]	[1.605,4.097]	[1.741,3.948]
Effective F-Statistic	51.62	61.96	32.87	36.32	39.55
Countries	47	40	47	47	47
Number of Clusters	45	40	45	45	45
C. Dependent Variable: Change in Ln(GDP)					
Change in Ln(LEB)	0.700	1.332**	0.053	0.814*	0.036
	(0.646)	(0.636)	(0.923)	(0.480)	(0.758)
	[-0.329,2.853]	[0.219,3.482]	[-1.186,∞]	[-0.064,2.196]	[-1.065,3.839]
Effective F-Statistic	44.60	48.85	33.45	31.35	38.94
Countries	52	43	52	52	52
Number of Clusters	50	43	50	50	50
D. Dependent Variable: Change in Ln(GDP per capita)					
Change in Ln(LEB)	-1.144***	-0.510	-1.561***	-1.113***	-1.477***
	(0.411)	(0.493)	(0.530)	(0.403)	(0.457)
	[-1.895,0.045]	[-1.335,1.236]	[-2.447,1.984]	[-2.001,-0.156]	[-2.242,0.514]
Effective F-Statistic	44.60	48.85	33.45	31.35	38.94
Countries	52	43	52	52	52
Number of Clusters	50	43	50	50	50

Notes: To be in the sample countries need to have non-missing data on disease-specific mortality rates for at least 9 out of the 13 infectious diseases under consideration. Additionally, it is required that pneumonia and tuberculosis (all forms) have non-missing values. Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The IV estimates were obtained using the Stata command *ivreg2* (Baum *et al.*, 2002). The *effective F-statistic* (Olea and Pflueger, 2013), allowing for errors that are not conditionally homoskedastic and serially uncorrelated, is obtained using the Stata command *weakivtest* (Pflueger and Wang, 2015). The (Anderson-Rubin) 95% confidence intervals presented in brackets are weak-IV-robust ones obtained using the Stata command *weakiv* (Finlay *et al.*, 2013).

C.9 in Appendix). Ultimately, estimating the 2SLS regression model for a country sample that captures the epidemiological situation in the 1940s best confirms our earlier results and provides further support to the findings of Acemoglu and Johnson (2007).

3.4 Conclusion

This article re-investigates the findings of Acemoglu and Johnson (2007) that increased life expectancy due to exogenous medical innovations during the 1940s led to a significant increase in population size which was not accompanied by sufficient growth in economic output resulting in a significant decline in income per capita over the period 1940-1980.

To this end, we create a new data set on historical mortality rates which refines and supplements the original data of Acemoglu and Johnson (2007). In particular, we correct for errors in the original digitization process, extend the coverage of diseases by country, and decompose mortality rates into country- and town-level mortality rates. Accounting for observed differences in the rates and the relative importance of diseases across these two levels, we construct four refined predicted mortality instruments, each differing from the assumptions placed upon them.

Replicating the 2SLS long-difference regression model of Acemoglu and Johnson (2007) with our new data set in a narrow sense confirms the overall pattern found by the authors. Irrespective of the refined predicted mortality instrument, we find the significant and positive second-stage effect of life expectancy at birth on population growth and total births, while no significant effect on GDP is detected. Our results, moreover, confirm the significant and negative effect of improved life expectancy on GDP per capita for three of our four refined instruments. The coefficient turns insignificant if we exclusively rely on country-level information for the construction of the predicted mortality instrument. Our findings, further, reveal that we cannot reject a pre-existing trend in life expectancy in the decade before the international epidemiological transition for any of the predicted mortality instruments–including the original instrument of Acemoglu and Johnson (2007)–except for our refined *country-level* instrument–the instrument with the highest effective F-statistic of all refined instruments.

In the next step, we utilize the extensive coverage of our data set and restrict the sample to countries for which we have sufficient data to accurately picture the epidemiological situation in 1940. The results for this homogeneous sample confirm the main findings of Acemoglu and Johnson (2007). It is important to note, however, that the previously detected caveats for the predicted mortality instruments not relying exclusively on country-level rates remain. In particular, we cannot reject pre-existing trends for these instruments and the estimated significant second-stage effects are not robust to weak instruments for some specifications. In conjunction with a coverage of at least 53 countries even when applying conservative sample selection criteria, we recommend that researchers in the future rely on our country-level predicted mortality instrument for causal identification.

Chapter 4

Population and Conflict Revisited[1]

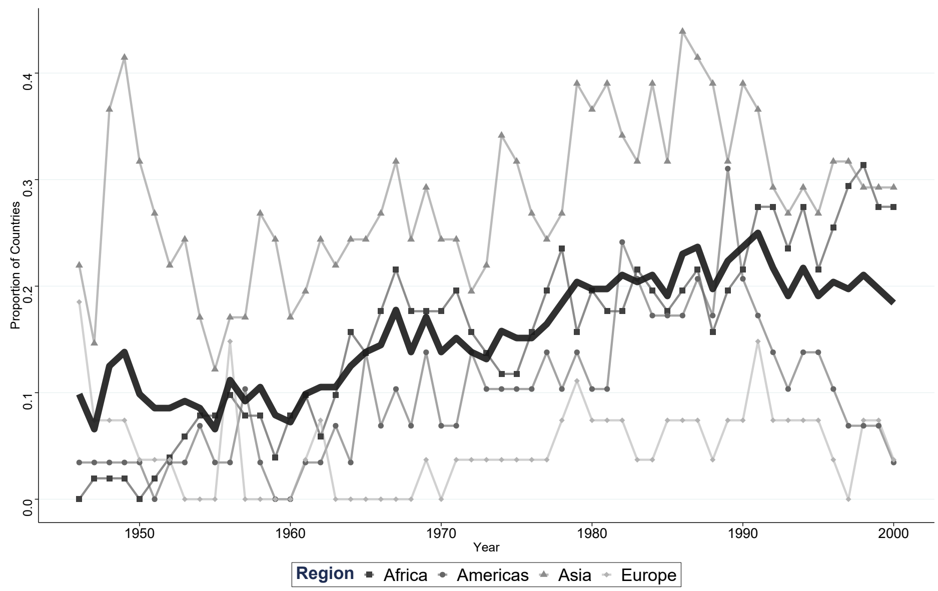
4.1 Introduction

Over the last century, the world population increased from 1.8 billion in 1913 to 6.1 billion in 2001 (Maddison, 2003). This population growth has been unevenly distributed across world regions. The population in Western Europe steadily increased from 261 million in 1913 to around 392 million in 2001, while its share in the world population was more than halved from 14.6 percent to 6.4 percent; a consequence of large population increases in Africa, Latin America, and Asia in the second half of the past century.[2]

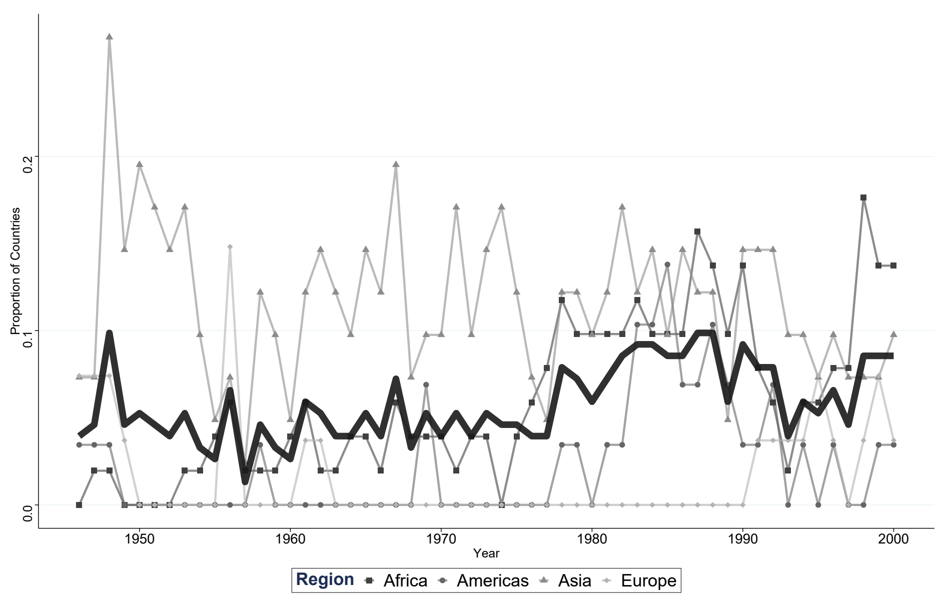
Over the same period, the number of countries experiencing conflicts (with at least 25 battle deaths per year) and civil wars (defined as internal conflicts with more than 1000 battle deaths in a year) increased around the globe. Figure 4.1 shows the proportion of countries worldwide (solid black line) and across regions experiencing a conflict, Figure 4.1(a), or a civil war, Figure 4.1(b), from 1946 to 2000. The worldwide share of countries in a conflict or civil war steadily increased over time and reaches a constant level in recent years twice the size of the late 1940s and early 1950s. The regions enduring the largest shares of

[1]This chapter is joint work with David Kreitmeir.

[2]Africa's population increased from 125 million (7 percent of the world population) in 1913 to 821 million (13.4 percent of the world population) in 2001. The same development is observed in Latin America with an increase in population from 81 million (4.5 percent) to 531 million (8.6 percent), while Asia's population increased from 926 million (51.7 percent) to 3 527 million (57.4 percent) (Maddison, 2003).



(a) Civil Conflicts



(b) Civil Wars

Figure 4.1: *Regional Proportion of Countries in Civil Conflicts or Civil Wars*

Notes: Regions are defined by UN M49. Region Oceania not shown. The worldwide proportion of countries in civil conflicts or civil wars is illustrated by the solid black line. Data source: UCDP/PRIO Armed Conflict Dataset version 21.1 (see Gleditsch et al., 2002; Pettersson et al., 2021).

violent conflicts are Africa, the Americas, and Asia; the regions characterized by the largest population growth. This raises the question if there is a causal link between population growth and conflicts.

The relationship between population growth and conflicts has been studied recently by Acemoglu *et al.* (2020). Using the predicted mortality instrument introduced by Acemoglu and Johnson (2007), the authors report that a 10% increase in population size leads to about 0.62 more years of conflict in the 1980s relative to the 1940s. Acemoglu *et al.* (2020) argue that medical innovations during the medical epidemiological transition in the 1940s reduced initial mortality rates from infectious diseases and has thereby led to a significant increase in population size. In turn, the ensuing population growth contributed to an increase in conflicts, particularly over scarce resources through a Malthusian channel.

Drawing on the unique historical mortality rate data set introduced in Chapter 3, this study's findings challenge the existence of a Malthusian channel found by Acemoglu *et al.* (2020) in two respects. First, we find that the empirical findings of Acemoglu *et al.* (2020) are sensitive to the construction assumptions placed upon the predicted mortality instrument. In particular, the positive effect of population growth on conflict is rendered insignificant when the instrument is constructed primarily on basis of country-level mortality rates. However, estimates retain their significance when (i) the maximum available mortality rate of each infectious disease in a country or (ii) town-level instead of country-level mortality rates are used in the construction of the instrument. Except for the latter construction, we observe a substantial decline in instrument relevance compared to the original instrument of Acemoglu and Johnson (2007). Consequently, we apply weak instrument robust inference for all our estimates.

Second, we test the necessary assumption for the Malthusian channel that countries have not undergone the demographic transition at the time of the epidemiological transition in the 1940s. The demographic transition is a crucial turning point for the economic and demographic development in a country implying heterogeneous dynamics in population growth. The reduction of high mortality rates to a sustained low level followed by a delayed, analogous decline in fertility rates accelerates population growth during the early phase of the transition but slows down once fertility rates remain at low levels. Hence, the impact of mortality reduction during the epidemiological transition and the extent of population growth depends on the demographic development stage by 1940.[3]

Irrespective of the construction of the instrument, our results reveal that a reduction in (predicted) mortality in the first stage leads to a significant increase in population growth for countries that have not undergone the demographic transition by 1940, while post-transitional countries experience a significant decline. The documented reversed effect on post-transitional countries in comparison to Acemoglu *et al.* (2020) implies a violation of the monotonicity assumption. Allowing for differential time trends for pre- and post-transitional countries, in addition to heterogeneous marginal effects in the empirical specification, restores the required monotonicity of estimated effects in the first stage but leaves the reversed effect on population growth for post-transitional countries intact. In specific, the estimated coefficients for all predicted mortality instruments are insignificant for pre-transitional countries and remain significantly positive for post-transitional countries once town-level mortality rates are used in the construction of the instrument, including the original instrument. Furthermore, we find that differential time trends for population growth between pre- and post-transitional countries were already present before the epidemiological transition, for the period from 1900 to 1940. In summary, our empirical results provide robust evidence across empirical specifications, classifications, and economic development stages for the hypothesis that prior estimates by Acemoglu *et al.* (2020) are confounded by differential trends for pre- and post-transitional countries. Once the influence of the demographic transition is accounted for, population growth possesses no longer a causal impact on conflict.

The remainder of the paper is structured as follows. Section 4.2 describes the data. Section 4.3 explains the empirical strategy of Acemoglu *et al.* (2020) and replicates their

[3]The importance of the demographic transition regarding the effect of life expectancy on economic growth has been analyzed by Cervellati and Sunde (2011). They find that the effect is non-monotonic being negative (but often insignificant) before but positive after the demographic transition.

results with the refined instruments. Section 4.4 presents the classification and empirical results accounting for the demographic transition. Section 4.5 concludes.

4.2 Data

Data on outcomes is taken *(i)* from Acemoglu *et al.* (2020) and *(ii)* the independent variable, namely the predicted mortality instrument, is drawn from our own data set presented in Chapter 3.

Conflict — The main outcome variable is the ratio of the number of years in a conflict in a decade. Following Acemoglu *et al.* (2020), we refer to decades with the starting year–e.g. we refer to the average number of years in a conflict between 1940 and 1949 (inclusive) as conflict in 1940. The baseline conflict data set is the v4.0 Correlates of War (COW) data set (Sarkees and Wayman, 2010). COW considers intra-state civil wars with at least 1,000 battle-related deaths and active involvement of the central government. A comparable high-intensity conflict measure is provided by Fearon and Laitin (2003) with the main difference that anti-colonial wars are attributed to the empire in question. Third, the Uppsala Conflict Data Project, in conjunction with International Peace Research Institute (UCDP/PRIO Armed Conflict Dataset Version 4, Gleditsch *et al.*, 2002) relaxes the threshold of the battle-related death to 25 deaths a year and allows the inclusion of civil conflicts rather than exclusively civil wars at the cost of a shorter coverage period from 1946 to 2000. The fourth conflict measure focuses on the intensity of conflicts with the information on battle deaths drawn from the Center for the Study of CivilWar (CSCW)'s Battle Deaths Dataset (Lacina and Gleditsch, 2005).[4]

Predicted Mortality — The predicted mortality instrument is defined by Acemoglu and Johnson (2007) as the sum of each country's initial mortality rate in 1940 from infectious diseases until the global medical intervention such that mortality rates are set to zero in 1980 by assumption. Our data set contains the original proposed predicted mortality instrument

[4]For more details on the coding of conflict variables see Acemoglu *et al.* (2020).

by Acemoglu and Johnson (2007) as well as the four revised instruments introduced in Chapter 3 which differentiate themselves with regard to the imposed construction assumptions. Our first instrument is the *country-level* predicted mortality instrument. We exclusively rely on mortality at the aggregate level to construct the instrument. Second, we supplement the *country-level* mortality rates with the average mortality across towns for a disease if no country-level value is available. We refer to this instrument as "country-level supplemented with town-level". This version of the instrument can be interpreted as using the "best available data". Third, we treat town-level as preferential to country-level data and replace country-level rates with town-level averages whenever the latter are available ("country-level replaced with town-Level"). Note that these three instruments by construction allow us to investigate the sensitivity of results to the observed differences between country- and town-level rates. Fourth, the predicted mortality instrument is defined as the sum of the highest available mortality rate of each disease, independent of the country or town level. This definition represents the maximum exposure of a country to infectious diseases that can be constructed with the available data. The descriptive statistics of our four refined instruments are contrasted with the original instrument of Acemoglu and Johnson (2007) used in Acemoglu *et al.* (2020) in Table 4.1. The distributional statistics of the revised instruments are qualitatively comparable to the original instrument of Acemoglu and Johnson (2007). The refined instruments exhibit a lower median mortality rate than the original instrument, while only the *maximum* predicted mortality instrument exhibits a higher mean value.

Table 4.1: *Descriptive Statistics - Predicted Mortality Instrument*

Predicted Mortality Rate Instrument Definition	N	Mean	SD	Min	Median	Max
Acemoglu and Johnson (2007)	55	0.469	0.271	0.121	0.405	1.126
Country-Level	54	0.326	0.252	0.003	0.280	1.147
Country-Level supplemented with Town-Level	55	0.404	0.312	0.003	0.329	1.672
Country-Level replaced with Town-Level	55	0.403	0.262	0.003	0.340	1.029
Maximum	55	0.475	0.343	0.003	0.368	1.780

Notes: USSR has no predicted mortality instrument on the country level due to missing data.

4.3 Replication of Acemoglu *et al.* (2020)

4.3.1 Empirical Specification

Following Acemoglu *et al.* (2020), we focus on long-run changes in dependent and independent variables in a 2SLS *long-difference* estimation framework with two time periods, 1940 and 1980. The second-stage long-difference regression model can be written as:[5]

$$\Delta c_i = \pi \Delta x_i + \Delta \mu + \Delta \epsilon_i, \tag{4.1}$$

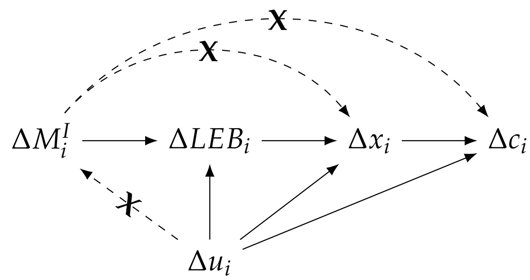
where c_i denotes the change in one of the conflict measures for country i from 1940 to 1980. The endogenous independent variable x_i instrumented by the predicted mortality instrument M_i^I is the change in the logarithm of population size. μ are time fixed effects. Formally, the corresponding first-stage equation takes the form:

$$\Delta x_i = \phi \Delta M_i^I + \Delta \widetilde{\mu} + \Delta u_i. \tag{4.2}$$

Standard errors are clustered at the country level with Bangladesh, India, and Pakistan representing one cluster.

As discussed in detail in the seminal paper of Acemoglu and Johnson (2007), the predicted mortality rate instrument is plausibly exogenous as the endemic mortality rate in 1940 from infectious diseases was independent of medical innovations during the epidemiological transition during the 1940s. The exclusion restriction in Acemoglu *et al.* (2020) is, however, more demanding than in the set-up of Acemoglu and Johnson (2007). In particular, the exclusion restriction requires that the predicted mortality instrument has no effect on conflict except through its impact on life expectancy and the ensuing effect on population size. This follows by construction from the exclusion restriction in Acemoglu and Johnson (2007). The identifying assumptions are summarized in the directed acyclic graph (DAG) below:

[5] Note that the *long-difference* regression is equivalent to estimating a panel model with two observations per country (1940 and 1980) and country and time fixed effects.



In specific, Acemoglu *et al.* (2020) rely on the result in Acemoglu and Johnson (2007) that life expectancy has an insignificant effect on GDP but a significant and negative effect on GDP per capita. The latter in combination with the positive and significant effect on population size suggests that the instrument's effect on GDP per capita runs entirely through population growth; providing support for the fulfillment of the exclusion restriction. Since the exclusion restriction is not testable, the remainder of the paper assumes that the exclusion restriction is fulfilled and focuses on the plausibility of the *relevance* and *monotonicity* assumption.

4.3.2 Estimation Results

This section investigates the relevance of the instrument construction assumptions focusing on the four refined versions of the predicted mortality instrument. Regression tables report estimations in the baseline long-difference framework of Acemoglu *et al.* (2020) with two time periods: 1940 and 1980. Long-difference regressions for 1940 and 2000 can be found in Appendix D.1.1.

Table 4.2 presents the first-stage relationship between log population and the predicted mortality instruments as well as the reduced-form estimates for conflict. The table includes all countries of the base sample used in Acemoglu *et al.* (2020).[6] Panel A confirms the significant and negative first-stage effect of all four revised instruments on population size found by Acemoglu *et al.* (2020). The estimated coefficients for instruments incorporating

[6]The corresponding table for low- an middle-income countries can be found in Table D.1 in Appendix D.1. The findings are qualitatively the same.

town-level data imply that on average approximately 57% of the increase in population between 1940 and 1980 can be accounted for by the change in predicted mortality. In terms of magnitude, the estimated effect is similar to the one reported in Acemoglu *et al.* (2020). However, the point estimate for our preferred *country-level* instrument suggests that the predicted reduction in mortality only accounts for about 31% of population growth over the 1940-1980 period. Moreover, for this version of the instrument and when missing country-level mortality rates are supplemented with town-level rates, the reduced-form effect of the predicted mortality instrument on the fraction of the decade in conflict is not significant at the 5% level.[7] Notably, estimation results for the falsification exercise confirm the absence of pre-existing trends for the baseline sample and when the sample is restricted to low- and middle-income countries (see Table D.5 and D.6 in the Appendix), as reported in Acemoglu *et al.* (2020).

Table 4.2: *Acemoglu et al. (2020) - First-Stage and Reduced-Form Estimates*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(Population)					
Change in Predicted Mortality	-0.782***	-0.579***	-0.576***	-0.800***	-0.541***
	(0.141)	(0.172)	(0.189)	(0.128)	(0.160)
	[-1.065,-0.499]	[-0.926,-0.233]	[-0.956,-0.195]	[-1.057,-0.543]	[-0.862,-0.221]
Adjusted R^2	0.292	0.117	0.187	0.278	0.203
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
B. Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, COW2					
Change in Predicted Mortality	-0.491***	-0.340*	-0.317*	-0.624***	-0.413**
	(0.179)	(0.175)	(0.171)	(0.184)	(0.183)
	[-0.85,-0.133]	[-0.692,0.011]	[-0.66,0.025]	[-0.992,-0.255]	[-0.781,-0.045]
Adjusted R^2	0.149	0.048	0.066	0.229	0.158
Countries	52	51	52	52	52
Number of Clusters	51	50	51	51	51

Notes: Column 1 presents the replicated results for Table 3, 1940-1980, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Figures in brackets are 95% confidence intervals based on cluster-robust estimates of the variance matrix.

The 2SLS estimates for the effect of population on conflict are presented in Table 4.3. Panel A reports a significantly positive effect of population on the baseline conflict measure of Acemoglu *et al.* (2020). However, the *effective* F-statistic drops substantially, with the

[7] The scatter plots in Figure D.2 in Appendix D.2 illustrate the reduced-form regressions for all conflict variables used in Acemoglu *et al.* (2020).

Table 4.3: *Acemoglu et al. (2020) - 2SLS Estimates*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, COW2					
Change in Ln(Population)	0.617***	0.587**	0.553***	0.780***	0.752***
	(0.213)	(0.253)	(0.204)	(0.244)	(0.232)
	[0.158,1.086]	[-0.09,1.284]	[0.113,1.064]	[0.223,1.328]	[0.276,1.351]
Effective F-Statistic	30.90	11.29	9.24	39.05	11.52
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
B. Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, Uppsala					
Change in Ln(Population)	0.576**	0.550	0.389	0.657**	0.668**
	(0.238)	(0.382)	(0.245)	(0.268)	(0.263)
	[0.107,1.145]	[-0.538,1.543]	[-0.195,0.95]	[0.062,1.278]	[0.096,1.306]
Effective F-Statistic	32.18	11.57	9.49	39.50	11.82
Countries	52	52	52	52	52
Number of Clusters	51	51	51	51	51
C. Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, FL					
Change in Ln(Population)	0.879***	0.913	0.757*	0.763**	1.004**
	(0.303)	(0.548)	(0.400)	(0.295)	(0.384)
	[0.286,1.615]	[-0.57,2.405]	[-0.307,1.564]	[0.099,1.436]	[0.08,1.844]
Effective F-Statistic	32.18	11.57	9.49	39.50	11.82
Countries	52	52	52	52	52
Number of Clusters	51	51	51	51	51
D. Dependent Variable: Change in log (1 + Battle Deaths/Pop. in 1940)					
Change in Ln(Population)	1.347**	1.655*	1.285**	2.217***	2.090***
	(0.598)	(0.947)	(0.599)	(0.770)	(0.780)
	[0.085,2.684]	[-1.356,3.848]	[-0.026,2.766]	[0.399,3.902]	[0.418,4.019]
Effective F-Statistic	32.18	11.57	9.49	39.50	11.82
Countries	52	52	52	52	52
Number of Clusters	51	51	51	51	51

Notes: Column 1 presents the replicated results for Table 4 Panel A, 1940-1980, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The IV estimates were obtained using the Stata command *ivreg2* (Baum *et al.*, 2002). The *effective F-statistic* (Olea and Pflueger, 2013), allowing for errors that are not conditionally homoskedastic and serially uncorrelated, is obtained using the Stata command *weakivtest* (Pflueger and Wang, 2015). The (Anderson-Rubin) 95% confidence intervals presented in brackets are weak-IV-robust ones obtained using the Stata command *weakiv* (Finlay *et al.*, 2013).

exception of the instrument for which we replace country-level mortality rates with town-level rates.[8] The weak instrument robust Anderson-Rubin 95% confidence intervals include 0 for our preferred *country-level* instrument, while the remaining instruments retain a significantly positive effect. The weak instrument issue becomes more pronounced in Panels B - D, with only the *country-level replaced with town-level* and *maximum* instruments conserving a significantly positive effect once we account for weak instruments.[9]

[8]Note that the *country-level replaced with town-level* instrument exhibits a higher effective F-statistic than the instrument used in Acemoglu *et al.* (2020).

[9]Estimates are qualitatively similar if the sample is restricted to low- and middle-income countries only (see Table D.2 in Appendix D.1). However, the weak instrument issue becomes more acute due to the reduced sample size.

Further, we find no significant effect of population on conflict over the time period 1940 to 2000 for all our refined instruments - except for the effect of the *country-level replaced with town-level* and the *maximum* predicted mortality instrument (see Table D.3 in the Appendix).[10] Interestingly, we cannot detect a significant effect for this period also for the original instrument of Acemoglu and Johnson (2007) except for COW2. The weak instrument problem for three out of the four revised predicted mortality instruments remains.

In summary, our results raise doubts about the causal effect of population on conflict. In particular, the results for the *country-level* predicted mortality instrument put into question the relationship between population growth and conflict risk at the aggregate level. The concerns are substantiated by the (near) disappearance of the effect for the 1940-2000 period.

4.4 Accounting for the Demographic Transition

The identification strategy in Acemoglu *et al.* (2020) is based on the theoretical prediction of a Malthusian channel such that countries with larger population increases experience more conflicts, in particular over natural scarce resources. A key requirement for the presence of such a Malthusian channel is that countries are in a Malthusian regime in which production relies on a fixed input factor with an offsetting effect of population on economic growth. However, a crucial turning point for economic and population dynamics is the demographic transition. The demographic transition is characterized by a sustained decline in mortality rates from high to low levels followed by a delayed, analogous decline in fertility rates. Population growth accelerates from a low level during the early stages of the demographic transition with falling mortality rates but slows down when fertility rates adjust. Hence, population growth varies across countries depending on the different demographic development and Malthusian mechanisms are no longer present in countries that have already undergone the demographic transition. Thus, one potential explanation for the sensitivity of results to different predicted mortality rate definitions is that the

[10] The corresponding estimates for the low- and middle-income country sample are reported in Table D.4 in the Appendix.

impact of medical advances during the epidemiological transition on population growth depends on the completion of the demographic transition by 1940. This hypothesis is analyzed in the following by testing whether there are heterogeneous effects of the predicted mortality instrument on *(i)* population growth and potentially on *(ii)* conflict in light of the demographic transition.

4.4.1 Classification

Cervellati and Sunde (2011) propose three criteria to identify if a country has completed the demographic transition and thereby follow the demographic literature (e.g. Chesnais, 1992). In particular, a country is classified as post-transitional if it satisfies the following three criteria by 1940:

- **C1** Life expectancy at birth exceeds 50 years;
- **C2** Fertility *or* the crude birth rate has exhibited a sustained decline;
- **C3** The crude birth rate has fallen below the threshold of 30/1000.

Applying these three criteria, Cervellati and Sunde (2011) classify 47 countries in the sample of Acemoglu and Johnson (2007). We directly follow their classification and additionally classify countries in the sample of Acemoglu *et al.* (2020). In particular, we apply the same three criteria to the countries of Bulgaria, the Czech Republic, Hungary, Poland, Romania, Bolivia, and Turkey, with the latter two being classified as pre-transitional countries and the other five countries as post-transitional countries.[11] Finally, the entire sample of Acemoglu *et al.* (2020) is composed of 25 pre-transitional countries and 26 post-transitional countries.

[11] Details of the countries' classification can be found in Section D.3 in the Appendix with Table D.20 summarizing the different classifications for each country. The second criteria is validated with data provided by Reher (2004). Reher (2004) defines the year of the onset of the fertility decline at the beginning of the first quinquennium after a peak, where fertility declines by at least 8% over two quinquennia and never increases to levels of the original trade-off point ignoring one-time events like the baby boom.

4.4.2 Extended Empirical Specification

The main empirical framework from Acemoglu *et al.* (2020) is augmented to control for the potentially heterogeneous effect of mortality reductions on *(i)* population size and on *(ii)* conflict between pre- and post-transitional countries. Formally, we estimate the following specification in the first stage:

$$\Delta x_i = \phi^{Pre} \Delta M_i^I + \phi^{Post} \Delta M_i^I \times Post_i + \Delta \widetilde{\mu}_t + \Delta u_i \tag{4.3}$$

where Δx_i denotes the change in logarithm of the population from 1940 to 1980 in country i and ΔM_i^I the change in the predicted mortality instrument. $Post_i$ is a binary indicator that takes the value 1 if a country is classified as post-transitional by 1940 and zero otherwise. The interaction term allows for heterogeneous effects of mortality reduction on population growth depending on the demographic environment. In our baseline specification, we include always a time trend ($\widetilde{\mu}_t$) to control for trends that could have an effect on the observed relationship between mortality and population in both demographic regimes. We refer to this estimation framework as semi-interacted model since it allows for differential marginal effects of the predicted mortality instrument in both regimes but assumes equivalent time trends. Further, we estimate equation (4.3) without an interaction term while allowing for distinct time trends for pre- and post-transitional countries, $\widetilde{\mu}_t^j$ with $j \in \{Pre; Post\}$. Finally, we estimate a fully interacted model which allows for both, differential time trends and heterogeneous effects of the predicted mortality instrument in post- and pre-transitional countries.

The corresponding second-stage regression of conflict on population that encompasses all three above described specifications can be written as:

$$\Delta c_i = \pi^{Pre} \Delta x_i + \pi^{Post} \Delta x_i \times Post_i + \Delta \mu_t^j + \Delta \epsilon_i^j, \tag{4.4}$$

where Δc_{it} denotes the change of one of the conflict measures for country i. Standard errors are robust against heteroscedasticity and serial correlation at the country level.

4.4.3 Pre-Post-Transitional Estimation Results

The importance of the demographic transition on the observed relationship between mortality and population size is illustrated in Figure 4.2. Figure 4.2 presents the first-stage relationship between population growth and all versions of the predicted mortality instrument. Irrespective of its construction, a non-monotonic relationship for pre- and post-transitional countries is apparent. In particular, we observe a positive relationship between predicted declines in mortality and population growth for post-transitional countries (black solid line and labels). This is in contrast to the estimated relationship in Acemoglu *et al.* (2020) that countries with initially higher mortality rates from infectious diseases experience larger increases in population. A link is still observable for pre-transitional countries (gray solid line and labels), in all sub-figures except for the slightly positive slope of the fitted line in sub-figure A presenting the original instrument in Acemoglu and Johnson (2007). Further, the systematic difference in intercepts in all sub-figures provides visual indication for differential time trends of pre- and post-transitional countries. In total, Figure 4.2 suggests that the predicted mortality instrument possesses a heterogeneous effect on population growth for pre- and post-transitional countries implying a violation of the IV assumption of monotonicity in the first stage.

Table 4.4 reports the first-stage regressions accounting for the demographic transition using the original predicted mortality instrument of Acemoglu and Johnson (2007) in Column 1 as well as our four, refined instruments in Columns 2-5. The dependent variable in all columns of Table 4.4 is the change in log population from 1940 to 1980. Panel A presents the first-stage relationship between log population and predicted mortality estimating equation 4.2 without interaction term as in Acemoglu *et al.* (2020). The estimation results are identical to the results in Panel A of Table 4.2, but additionally present the highly significant, positive time trend in population size. Panel B reports the estimation results for the sample of pre- and post-transitional countries. The results are identical to Panel A since all countries in the sample of Acemoglu *et al.* (2020) are classified. This alleviates concerns that the sample composition could bias estimates.

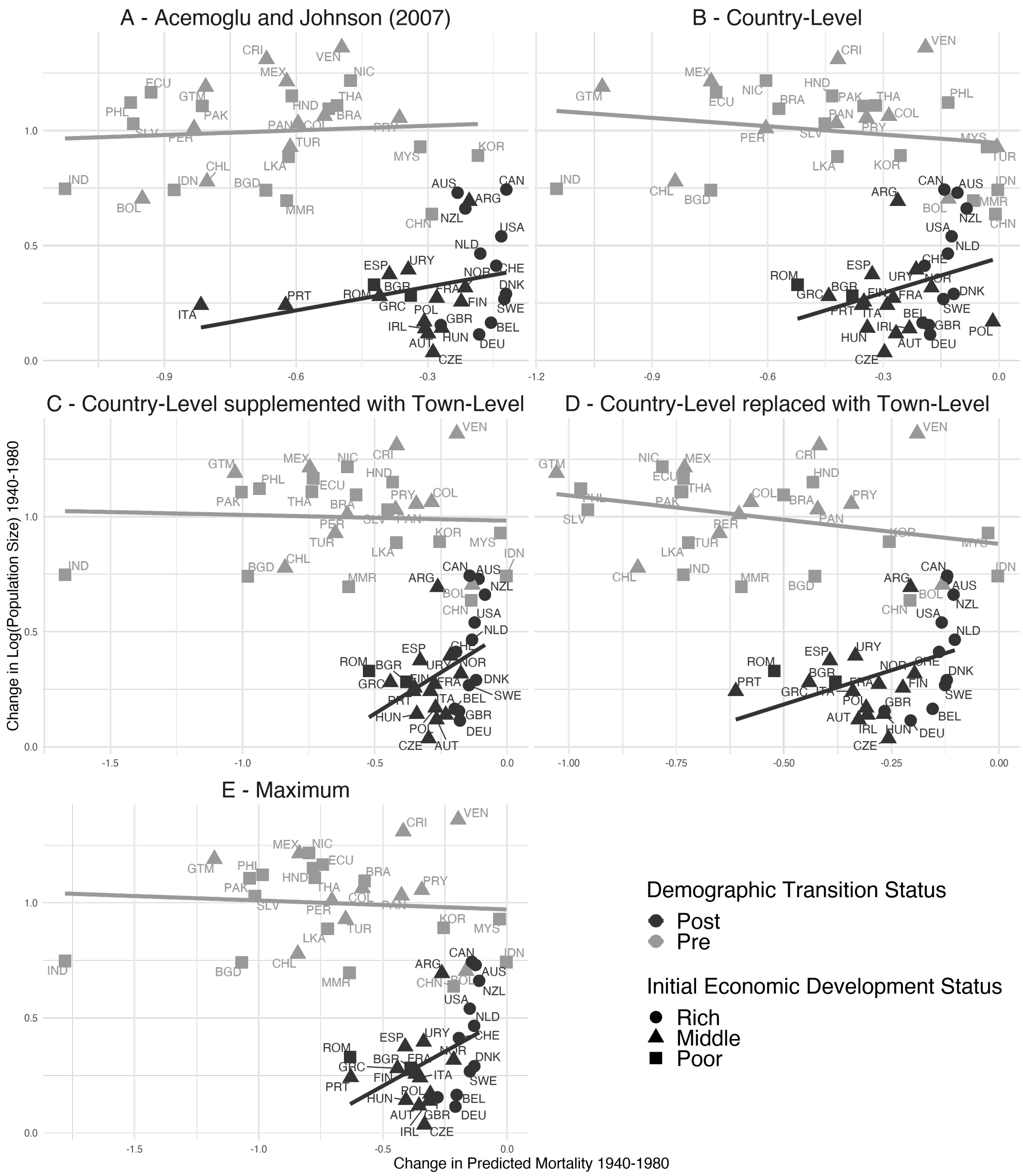


Figure 4.2: *First-Stage Estimates - Pre-Post-Transitional*

Notes: The figures correspond to the estimation of the fully-interacted model based on equation (4.3). Outcome variables and change in predicted mortality, 1940-1980, is depicted for all different definitions of the predicted mortality instrument for the baseline sample of 51 countries in Acemoglu et al. (2020): (A) the original data as provided by Acemoglu and Johnson (2007); (B) the revised predicted mortality rate instrument for only country-level sources; (C) the revised predicted mortality rate instrument for country-level sources supplemented with town-level data; (D) the revised predicted mortality rate instrument for country-level sources replaced with town-level data; (E) the revised predicted mortality rate instrument with the highest available mortality rate of each disease independent of country or town level. The initial economic development status is depicted by circles (rich), triangles (middle), and squares (poor).

Table 4.4: *First-Stage Estimates - Full Pre-Post Classification*

	Dependent Variable: Change in Ln(Population)				
Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Predicted Mortality	-0.782***	-0.579***	-0.576***	-0.800***	-0.541***
	(0.141)	(0.172)	(0.189)	(0.128)	(0.160)
Time Trend	0.296***	0.478***	0.434***	0.337***	0.409***
	(0.078)	(0.080)	(0.089)	(0.082)	(0.091)
Adjusted R^2	0.292	0.117	0.187	0.278	0.203
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
B. Classified Pre-Post-Sample					
Change in Predicted Mortality	-0.782***	-0.579***	-0.576***	-0.800***	-0.541***
	(0.141)	(0.172)	(0.189)	(0.128)	(0.160)
Time Trend	0.296***	0.478***	0.434***	0.337***	0.409***
	(0.078)	(0.080)	(0.089)	(0.082)	(0.091)
Adjusted R^2	0.292	0.117	0.187	0.278	0.203
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
C. Semi-Interacted Model					
Change in Predicted Mortality	-0.512***	-0.452**	-0.283*	-0.526***	-0.300**
	(0.139)	(0.183)	(0.167)	(0.109)	(0.148)
Change in Predicted Mortality × Post	1.364***	1.987***	1.984***	1.671***	1.590***
	(0.204)	(0.232)	(0.261)	(0.209)	(0.214)
Time Trend	0.620***	0.756***	0.799***	0.668***	0.760***
	(0.086)	(0.077)	(0.085)	(0.074)	(0.089)
Marginal Effect of Post	0.852***	1.535***	1.701***	1.145***	1.290***
	(0.287)	(0.323)	(0.361)	(0.278)	(0.305)
Adjusted R^2	0.649	0.651	0.679	0.711	0.684
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
D. Different Time Trend					
Change in Predicted Mortality	0.173	-0.072	0.017	-0.051	0.020
	(0.142)	(0.150)	(0.124)	(0.146)	(0.117)
Time Trend × Pre	1.126***	0.980***	1.020***	0.981***	1.023***
	(0.112)	(0.078)	(0.092)	(0.106)	(0.100)
Time Trend × Post	0.384***	0.319***	0.340***	0.322***	0.341***
	(0.061)	(0.056)	(0.052)	(0.060)	(0.056)
Adjusted R^2	0.934	0.932	0.932	0.932	0.932
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
E. Fully-Interacted Model					
Change in Predicted Mortality × Pre	0.092	-0.160	-0.051	-0.205	-0.062
	(0.194)	(0.176)	(0.149)	(0.154)	(0.144)
Change in Predicted Mortality × Post	0.337**	0.489	0.703**	0.566**	0.578**
	(0.162)	(0.308)	(0.319)	(0.238)	(0.246)
Time Trend × Pre	1.072***	0.943***	0.981***	0.893***	0.969***
	(0.144)	(0.084)	(0.100)	(0.110)	(0.111)
Time Trend × Post	0.430***	0.450***	0.507***	0.481***	0.504***
	(0.075)	(0.096)	(0.095)	(0.084)	(0.091)
Adjusted R^2	0.933	0.935	0.936	0.938	0.937
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50

Notes: Panel A Column 1 presents the replicated result for Table 3 Column 1, 1940-1980, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Estimates for the semi-interacted model in equation (4.3) are presented in Panel C. The difference in the estimated effects for pre- and post-transitional countries is captured by the interaction term for post-transitional countries. The marginal effect for post-transitional countries is presented exclusively. The estimated marginal effect of the predicted mortality instrument on population growth is significantly negative for pre-transitional, but significantly positive for post-transitional countries for all instruments (see Columns 1-5). These results confirm the visual evidence presented in Figure 4.2 that the presence of heterogeneous effects in the first stage results in a violation of the monotonicity assumption. The common time trend is again highly significant and positive, while it increases in magnitude in comparison to Panel B. The importance of the demographic transition is further substantiated in Panel D. The observed difference in predictive power of time trends for pre- and post-transitional countries indicates that the population is growing more over time in the absence of a fertility transition. Interestingly, the specification with differential time trends explains more than 93% of the variation in the change of population as shown by the adjusted R^2, while the coefficients of all instruments are insignificant.

The results for the fully-interacted model in Panel E—which is equivalent to a split sample estimation—report an insignificant effect of the predicted mortality instrument on population size for pre-transitional countries, while a mortality reduction is estimated to significantly decrease population growth for post-transitional countries, except for our preferred *country-level* predicted mortality instrument (see Column 2). In line with Figure 4.2, the fully interacted model substantiates the inverse effect of the predicted mortality reduction for post-transitional countries in comparison to Acemoglu *et al.* (2020). Further, our estimates suggest that population growth in pre-transitional countries is driven by a time trend that is about twice the magnitude as for post-transitional countries. In summary, our findings suggest that differential time trends between countries that have and have not undergone the demographic transition by 1940 almost fully explain the population increase between 1940 and 1980, with the reduction of mortality rates during the epidemiological transition playing only a minor role.

The corresponding estimates to Table 4.4 for the reduced sample used in Cervellati and Sunde (2011) are presented in Table D.8 in the Appendix. The results are qualitatively stable.

The estimated negative relationship between mortality reduction and population growth for post-transitional countries is also present for the restricted sample of only poor- and middle-income countries (see Table D.7 in the Appendix). The difference in the predictive power of time trends between pre- and post-transitional countries is also confirmed in this sample.[12] Hence, the presented estimates are not spuriously capturing differences in economic development positively correlated with the completion of the demographic transition.

Importantly, estimates for the period from 1900 to 1940 reveal that population growth in pre- and post-transitional countries has already been on differential trajectories before the international epidemiological transition during the 1940s. Table 4.5 reports corresponding results to Table 4.4 with the change in population size from 1900 to 1940 as the dependent variable. While changes in the predicted mortality are not related to population growth before 1940, the differential time trends for both demographic regimes are positive and significant at the 1% level with the trend exhibiting larger predictive power for pre-transitional countries (see Panel D and E).[13]

For completeness, the corresponding second-stage 2SLS estimates for the baseline sample are presented in Table 4.6. However, either the violation of the monotonicity assumption in the first stage in the semi-interacted model (Panel C) or the loss of predictive power once differential time trends are accounted for (Panel D and E) results in spuriously estimated effects in the second stage.[14]

In summary, our results provide empirical evidence that causal identification of the

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[12]The corresponding estimates for low-and middle-income countries in the sample of Cervellati and Sunde (2011) are reported in Table D.9 in the Appendix.

[13]The corresponding table for low- and middle-income countries can be found in Section D.1.2 in the Appendix. In order to have the same country sample as in Table 4.4, the USSR is excluded in Panel B-E of Table 4.5 and 4.6. According to the three criteria in Section 4.4.1, the USSR is classified as a pre-transitional country as explained in detail in Section D.3 in the Appendix. The tables with the original country sample for the falsification exercise as in Acemoglu *et al.* (2020) including the USSR can be found in Section D.1.2 in the Appendix. The results are qualitatively the same. This is also the case once relying exclusively on the classification of Cervellati and Sunde (2011), see Section D.1.2 in the Appendix.

[14]Note that the 2SLS estimates are insignificant when we estimate the models separately for pre- and post-transitional countries (see Table D.14 in the Appendix). The corresponding first-stage regressions are presented in Table D.13 in the Appendix.

Table 4.5: *Falsification Exercise - Full Pre-Post Classification*

	Dependent Variable: Change in Ln(Population), 1900-1940				
	(1)	(2)	(3)	(4)	(5)
Predicted Mortality Rate Definition:	Acemoglu and Johnson (2007)	Country-Level	Country-Level Suppl. w. Town-Level	Country-Level Repl. w. Town-Level	Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Predicted Mortality	-0.189	-0.032	-0.046	-0.183	-0.057
	(0.138)	(0.138)	(0.148)	(0.115)	(0.130)
Time Trend	0.391***	0.467***	0.459***	0.405***	0.451***
	(0.080)	(0.064)	(0.070)	(0.068)	(0.072)
Adjusted R^2	0.014	-0.020	-0.018	0.010	-0.015
Countries	52	51	52	52	52
Number of Clusters	52	51	52	52	52
B. Classified Pre-Post-Sample					
Change in Predicted Mortality	-0.188	-0.032	-0.046	-0.183	-0.056
	(0.138)	(0.138)	(0.148)	(0.115)	(0.130)
Time Trend	0.391***	0.467***	0.460***	0.406***	0.452***
	(0.080)	(0.064)	(0.071)	(0.069)	(0.073)
Adjusted R^2	0.014	-0.020	-0.018	0.009	-0.016
Countries	51	51	51	51	51
Number of Clusters	51	51	51	51	51
C. Semi-Interacted Model					
Change in Predicted Mortality	-0.075	0.021	0.064	-0.083	0.038
	(0.137)	(0.150)	(0.140)	(0.111)	(0.126)
Change in Predicted Mortality × Post	0.611***	0.789***	0.881***	0.752***	0.738***
	(0.172)	(0.232)	(0.237)	(0.216)	(0.196)
Time Trend	0.534***	0.582***	0.615***	0.548***	0.609***
	(0.084)	(0.067)	(0.073)	(0.068)	(0.075)
Marginal Effect of Post	0.536**	0.810***	0.945***	0.669**	0.776***
	(0.233)	(0.279)	(0.298)	(0.258)	(0.251)
Adjusted R^2	0.139	0.128	0.161	0.171	0.177
Countries	51	51	51	51	51
Number of Clusters	51	51	51	51	51
D. Different Time Trend					
Change in Predicted Mortality	0.222	0.187	0.193	0.092	0.168
	(0.170)	(0.146)	(0.130)	(0.131)	(0.121)
Time Trend × Pre	0.752***	0.686***	0.708***	0.657***	0.712***
	(0.126)	(0.082)	(0.087)	(0.092)	(0.093)
Time Trend × Post	0.424***	0.405***	0.409***	0.385***	0.411***
	(0.078)	(0.067)	(0.066)	(0.067)	(0.067)
Adjusted R^2	0.785	0.784	0.787	0.780	0.786
Countries	51	51	51	51	51
Number of Clusters	51	51	51	51	51
E. Fully-Interacted Model					
Change in Predicted Mortality × Pre	0.196	0.172	0.166	0.008	0.125
	(0.236)	(0.166)	(0.148)	(0.145)	(0.144)
Change in Predicted Mortality × Post	0.280	0.278	0.461	0.472	0.479*
	(0.188)	(0.296)	(0.315)	(0.292)	(0.258)
Time Trend × Pre	0.735***	0.680***	0.694***	0.611***	0.685***
	(0.167)	(0.089)	(0.094)	(0.099)	(0.103)
Time Trend × Post	0.440***	0.427***	0.474***	0.484***	0.503***
	(0.090)	(0.098)	(0.104)	(0.096)	(0.098)
Adjusted R^2	0.780	0.780	0.784	0.780	0.786
Countries	51	51	51	51	51
Number of Clusters	51	51	51	51	51

Notes: Panel A Column 1 presents the replicated result for Table 3 Column 7, 1900-1940, in Acemoglu *et al.* (2020). USSR is not included in the classified sample. Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

effect of population size on conflict is not possible in the empirical framework of Acemoglu *et al.* (2020).

Table 4.6: *2SLS Estimates - Full Pre-Post Classification*

	Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, COW2				
	(1)	(2)	(3)	(4)	(5)
Predicted Mortality Rate Definition:	Acemoglu and Johnson (2007)	Country-Level	Country-Level Suppl. w. Town-Level	Country-Level Repl. w. Town-Level	Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Ln(Population)	0.617***	0.587**	0.553***	0.780***	0.752***
	(0.213)	(0.253)	(0.204)	(0.244)	(0.232)
Time Trend	-0.353***	-0.333*	-0.311**	-0.462***	-0.443***
	(0.129)	(0.167)	(0.128)	(0.152)	(0.148)
Kleibergen-Paap F-Statistic	30.90	11.29	9.24	39.05	11.51
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
B. Classified Pre-Post-Sample					
Change in Ln(Population)	0.617***	0.587**	0.553***	0.780***	0.752***
	(0.213)	(0.253)	(0.204)	(0.244)	(0.232)
Time Trend	-0.353***	-0.333*	-0.311**	-0.462***	-0.443***
	(0.129)	(0.167)	(0.128)	(0.152)	(0.148)
Kleibergen-Paap F-Statistic	30.90	11.29	9.24	39.05	11.51
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
C. Semi-Interacted Model					
Change in Ln(Population)	-0.062	-0.315	0.085	-0.265	-0.201
	(0.351)	(1.212)	(0.475)	(0.573)	(0.447)
Change in Ln(Population) × Post	-1.090	-1.664	-0.797	-1.841	-1.576
	(0.843)	(2.903)	(1.087)	(1.485)	(1.169)
Time Trend	0.286	0.552	0.138	0.549	0.461
	(0.374)	(1.284)	(0.502)	(0.621)	(0.483)
Kleibergen-Paap F-Statistic	2.45	0.42	1.38	1.40	1.70
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
D. Different Time Trend					
Change in Ln(Population)	-2.257	2.709	-9.812	11.227	-16.462
	(2.763)	(4.672)	(76.047)	(31.686)	(103.736)
Time Trend × Pre	2.451	-2.564	10.083	-11.168	16.800
	(2.794)	(4.735)	(76.716)	(32.207)	(104.571)
Time Trend × Post	0.705	-0.961	3.241	-3.820	5.473
	(0.923)	(1.581)	(25.480)	(10.742)	(34.719)
Kleibergen-Paap F-Statistic	1.49	0.23	0.02	0.12	0.03
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
E. Fully-Interacted Model					
Change in Ln(Population) × Pre	-7.226	1.468	4.714	3.950	6.403
	(16.728)	(1.357)	(11.272)	(3.226)	(12.660)
Change in Ln(Population) × Post	0.523	0.104	0.727	0.640	0.352
	(0.605)	(1.241)	(0.822)	(0.675)	(0.483)
Time Trend × Pre	7.471	-1.311	-4.589	-3.818	-6.296
	(16.873)	(1.382)	(11.458)	(3.325)	(12.890)
Time Trend × Post	-0.228	-0.087	-0.296	-0.267	-0.170
	(0.229)	(0.433)	(0.304)	(0.256)	(0.194)
Kleibergen-Paap F-Statistic	0.00	0.00	0.00	0.00	0.00
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50

Notes: Panel A Column 1 presents the replicated result for Table 4 Column 1, 1940-1980, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

4.5 Conclusion

This paper re-investigates the findings of Acemoglu *et al.* (2020) that population growth in the wake of the international epidemiological transition has significantly contributed to more violent conflicts over the period 1940-1980. Drawing on our unique data set of historical mortality rates, we first find that previous results of Acemoglu *et al.* (2020) are sensitive to implicit assumptions imposed on the predicted mortality instrument during the construction process. Second, we account for the potential influence of the demographic transition on the estimated relationship between mortality reduction and population growth. We find that the explanatory power of the predicted mortality instrument for population growth vanishes for countries that have not undergone the demographic transition by 1940, while an inverse negative of mortality reduction on population growth is detected for post-transitional countries. Our results further reveal that previous results of Acemoglu *et al.* (2020) are confounded by the omission of differential time trends between pre- and post-transitional countries which have already persisted before the international epidemiological transition.

Future research should exploit the variation in the experience of the demographic transition across countries. One implication of the variation in the timing of the demographic transition by 1940 is that the population structure differs across countries with a larger, older population share in post-transitional countries since they are characterized by a higher life expectancy at birth than in pre-transitional countries. The epidemiological transition might have had heterogeneous effects on different age-groups depending on the susceptibility of age groups to specific infectious diseases. The extension of our unique data set with age groups specific death rates and population shares might thereby help to disentangle the composition from the size effect in the observed population dynamics and contribute to the literature on the economics of conflict.

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Appendix A

Appendix to Chapter 1

A.1 Additional Empirical Results

A.1.1 Estimation Results – All Coefficients

Table A.1: *Gravity Equation Estimates - Replication (Baseline Specification)*

	(1) OLS $\ln(EX_{ij})$	(2) OLS $\ln(1+EX_{ij})$	(3) PPML $EX_{ij} > 0$	(4) PPML EX_{ij}
Log distance	-1.347***	-1.332***	-0.770***	-0.750***
	(0.031)	(0.036)	(0.042)	(0.041)
Contiguity dummy	0.174	-0.399**	0.352***	0.370***
	(0.130)	(0.189)	(0.090)	(0.091)
Common-language dummy	0.406***	0.550***	0.418***	0.383***
	(0.068)	(0.066)	(0.094)	(0.093)
Colonial-tie dummy	0.666***	0.693***	0.038	0.079
	(0.070)	(0.067)	(0.134)	(0.134)
Free-trade agreement dummy	0.310***	0.174	0.374***	0.376***
	(0.098)	(0.138)	(0.076)	(0.077)
Fixed Effects	✓	✓	✓	✓
Observations	9,613	18,360	9,613	18,360
R^2	0.751	0.767	0.926	0.928

Notes: Results from estimations of gravity equations by Ordinary Least Squares (OLS) and Poisson Pseudo Maximum Likelihood (PPML). The dependent variable is (the log of) bilateral export flows in 1990. Empirical specifications are as in Anderson and van Wincoop (2003). Data source: Silva and Tenreyro (2006). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.2: *Estimates of Demography-Extended Gravity Equations - Baseline (Baseline Specification)*

	(1) OLS $\ln(EX_{ij})$	(2) OLS $\ln(1+EX_{ij})$	(3) PPML $EX_{ij} > 0$	(4) PPML EX_{ij}
Log distance	-1.324***	-1.309***	-0.855***	-0.845***
	(0.039)	(0.043)	(0.050)	(0.048)
Contiguity dummy	0.334**	-0.410**	0.149**	0.153**
	(0.142)	(0.200)	(0.067)	(0.066)
Common-language dummy	0.293***	0.578***	0.234***	0.216***
	(0.078)	(0.079)	(0.077)	(0.078)
Colonial-tie dummy	0.790***	0.784***	0.271***	0.302***
	(0.085)	(0.082)	(0.094)	(0.095)
Free-trade agreement dummy	0.143	-0.045	0.410***	0.422***
	(0.126)	(0.182)	(0.081)	(0.081)
Log Time Diff. DT	0.116***	0.159***	0.080***	0.095***
	(0.023)	(0.020)	(0.015)	(0.016)
Fixed Effects	✓	✓	✓	✓
Observations	6,835	13,110	6,835	13,110
R^2	0.754	0.773	0.951	0.952

Notes: Results from estimations of gravity equations by Ordinary Least Squares (OLS) and Poisson Pseudo Maximum Likelihood (PPML). The dependent variable is (the log of) bilateral export flows in 1990. Empirical specifications are as in Anderson and van Wincoop (2003), extended for the log time difference in the timing of the demographic transition ("Log Time Diff. DT"). Data sources: Silva and Tenreyro (2006) and Reher (2004). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.3: *Estimates of Demography-Extended Gravity Equations - Extension (Baseline Specification)*

	(1) PPML EX_{ij}	(2) PPML EX_{ij}	(3) PPML EX_{ij}	(4) PPML EX_{ij}	(5) PPML EX_{ij}
Log distance	-0.845***	-0.809***	-0.845***	-0.809***	-0.845***
	(0.048)	(0.049)	(0.049)	(0.049)	(0.049)
Contiguity dummy	0.153**	0.146**	0.153**	0.146**	0.153**
	(0.066)	(0.069)	(0.066)	(0.069)	(0.066)
Common-language dummy	0.216***	0.259***	0.216***	0.259***	0.216***
	(0.078)	(0.076)	(0.078)	(0.076)	(0.078)
Colonial-tie dummy	0.302***	0.282***	0.302***	0.282***	0.302***
	(0.095)	(0.097)	(0.095)	(0.097)	(0.095)
Free-trade agreement dummy	0.422***	0.396***	0.421***	0.396***	0.421***
	(0.081)	(0.083)	(0.081)	(0.083)	(0.081)
Log Time Diff. DT	0.095***		0.094***		0.094***
	(0.016)		(0.016)		(0.016)
Post-Pre Relation		1.264***	1.106***	6.636***	6.364***
		(0.208)	(0.210)	(0.647)	(0.646)
Post-Post Relation				10.744***	10.516***
				(1.088)	(1.083)
Fixed Effects	✓	✓	✓	✓	✓
Observations	13,110	13,110	13,110	13,110	13,110
R^2	0.952	0.952	0.952	0.952	0.952

Notes: Results from estimations of gravity equations by Poisson Pseudo Maximum Likelihood (PPML). The dependent variable is bilateral export flows in 1990. Empirical specifications of the gravity equation are as in Anderson and van Wincoop (2003), extended for the log time difference in the timing of the demographic transition ("Log Time Diff. DT") and dummies for a dyadic constellation of a post-transitional and a pre-transitional country ("'Post-Pre Relation'). Data sources: Silva and Tenreyro (2006) and Reher (2004). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

A.1.2 Robustness

Table A.4: *Gravity Equation Estimates - Replication (Alternative Specification)*

	(1) OLS $\ln(EX_{ij})$	(2) OLS $\ln(1 + EX_{ij})$	(3) PPML $EX_{ij} > 0$	(4) PPML EX_{ij}
Log exporter's GDP	0.938***	1.128***	0.721***	0.732***
	(0.012)	(0.011)	(0.027)	(0.027)
Log importer's GDP	0.798***	0.866***	0.732***	0.741***
	(0.012)	(0.012)	(0.028)	(0.027)
Log exporter's GDP per capita	0.207***	0.277***	0.154***	0.157***
	(0.017)	(0.018)	(0.053)	(0.053)
Log importer's GDP per capita	0.106***	0.217***	0.133***	0.135***
	(0.018)	(0.018)	(0.044)	(0.045)
Log distance	-1.166***	-1.151***	-0.776***	-0.784***
	(0.034)	(0.040)	(0.055)	(0.055)
Contiguity dummy	0.314**	-0.241	0.202*	0.193*
	(0.127)	(0.201)	(0.105)	(0.104)
Common-language dummy	0.678***	0.742***	0.751***	0.746***
	(0.067)	(0.067)	(0.134)	(0.135)
Colonial-tie dummy	0.397***	0.392***	0.020	0.025
	(0.070)	(0.070)	(0.150)	(0.150)
Landlocked-exporter dummy	-0.062	0.106**	-0.872***	-0.863***
	(0.062)	(0.054)	(0.157)	(0.157)
Landlocked-importer dummy	-0.665***	-0.278***	-0.703***	-0.696***
	(0.060)	(0.055)	(0.141)	(0.141)
Exporter's remoteness	0.467***	0.526***	0.647***	0.660***
	(0.079)	(0.087)	(0.135)	(0.134)
Importer's remoteness	-0.205**	-0.109	0.549***	0.562***
	(0.085)	(0.091)	(0.120)	(0.119)
Free-trade agreement dummy	0.491***	1.289***	0.179**	0.181**
	(0.097)	(0.124)	(0.090)	(0.089)
Openness	-0.170***	0.739***	-0.139	-0.107
	(0.053)	(0.050)	(0.133)	(0.131)
Observations	9,613	18,360	9,613	18,360
R^2	0.662	0.672	0.857	0.862

Notes: Results from estimations of gravity equations by Ordinary Least Squares (OLS) and Poisson Pseudo Maximum Likelihood (PPML). The dependent variable is (the log of) bilateral export flows in 1990. Empirical specifications are as in Silva and Tenreyro (2006). Data source: Silva and Tenreyro (2006). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.5: *Estimates of Demography-Extended Gravity Equations - Baseline (Alternative Specification)*

	(1) OLS $\ln(EX_{ij})$	(2) OLS $\ln(1+EX_{ij})$	(3) PPML $EX_{ij} > 0$	(4) PPML EX_{ij}
Log exporter's GDP	0.970***	1.197***	0.724***	0.733***
	(0.015)	(0.014)	(0.021)	(0.021)
Log importer's GDP	0.829***	0.914***	0.740***	0.748***
	(0.014)	(0.014)	(0.025)	(0.025)
Log exporter's GDP per capita	0.163***	0.248***	0.163***	0.167***
	(0.022)	(0.022)	(0.037)	(0.037)
Log importer's GDP per capita	0.066***	0.213***	0.134***	0.137***
	(0.022)	(0.021)	(0.035)	(0.035)
Log distance	-1.165***	-1.176***	-0.833***	-0.838***
	(0.042)	(0.047)	(0.058)	(0.058)
Contiguity dummy	0.435***	-0.255	0.051	0.044
	(0.145)	(0.221)	(0.089)	(0.088)
Common-language dummy	0.552***	0.676***	0.572***	0.567***
	(0.078)	(0.080)	(0.097)	(0.097)
Colonial-tie dummy	0.507***	0.376***	0.176	0.183
	(0.087)	(0.086)	(0.125)	(0.124)
Landlocked-exporter dummy	-0.112	0.205***	-0.803***	-0.795***
	(0.069)	(0.059)	(0.140)	(0.140)
Landlocked-importer dummy	-0.723***	-0.293***	-0.595***	-0.589***
	(0.066)	(0.059)	(0.121)	(0.121)
Exporter's remoteness	0.220**	0.347***	0.787***	0.788***
	(0.101)	(0.112)	(0.170)	(0.168)
Importer's remoteness	-0.429***	-0.236**	0.680***	0.680***
	(0.111)	(0.117)	(0.142)	(0.141)
Free-trade agreement dummy	0.331***	1.072***	0.312***	0.316***
	(0.121)	(0.162)	(0.096)	(0.096)
Openness	-0.279***	0.482***	0.058	0.064
	(0.065)	(0.058)	(0.152)	(0.151)
Log Time Diff. DT	0.118***	0.245***	0.079***	0.084***
	(0.023)	(0.022)	(0.022)	(0.022)
Observations	6,835	13,110	6,835	13,110
R^2	0.675	0.696	0.901	0.903

Notes: Results from estimations of gravity equations by Ordinary Least Squares (OLS) and Poisson Pseudo Maximum Likelihood (PPML). The dependent variable is (the log of) bilateral export flows in 1990. Empirical specifications of the gravity equation are as in Silva and Tenreyro (2006), extended for the log time difference in the timing of the demographic transition ("Log Time Diff. DT"). Data sources: Silva and Tenreyro (2006) and Reher (2004). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.6: *Estimates of Demography-Extended Gravity Equations - Extension (Alternative Specification)*

	(1) PPML EX_{ij}	(2) PPML EX_{ij}	(3) PPML EX_{ij}	(4) PPML EX_{ij}	(5) PPML EX_{ij}
Log exporter's GDP	0.733***	0.736***	0.737***	0.736***	0.737***
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)
Log importer's GDP	0.748***	0.751***	0.752***	0.750***	0.752***
	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)
Log exporter's GDP per capita	0.167***	0.166***	0.173***	0.166***	0.173***
	(0.037)	(0.036)	(0.036)	(0.036)	(0.036)
Log importer's GDP per capita	0.137***	0.137***	0.144***	0.137***	0.144***
	(0.035)	(0.035)	(0.035)	(0.035)	(0.035)
Log distance	-0.838***	-0.837***	-0.849***	-0.837***	-0.849***
	(0.058)	(0.059)	(0.060)	(0.059)	(0.060)
Contiguity dummy	0.044	0.032	0.034	0.032	0.034
	(0.088)	(0.090)	(0.089)	(0.090)	(0.089)
Common-language dummy	0.567***	0.577***	0.565***	0.577***	0.565***
	(0.097)	(0.095)	(0.097)	(0.095)	(0.097)
Colonial-tie dummy	0.183	0.155	0.184	0.155	0.184
	(0.124)	(0.122)	(0.123)	(0.122)	(0.123)
Landlocked-exporter dummy	-0.795***	-0.806***	-0.802***	-0.806***	-0.802***
	(0.140)	(0.133)	(0.139)	(0.133)	(0.139)
Landlocked-importer dummy	-0.589***	-0.601***	-0.597***	-0.601***	-0.596***
	(0.121)	(0.117)	(0.120)	(0.117)	(0.120)
Exporter's remoteness	0.788***	0.827***	0.808***	0.827***	0.808***
	(0.168)	(0.165)	(0.168)	(0.165)	(0.168)
Importer's remoteness	0.680***	0.720***	0.700***	0.720***	0.700***
	(0.141)	(0.143)	(0.142)	(0.143)	(0.142)
Free-trade agreement dummy	0.316***	0.252**	0.309***	0.252**	0.309***
	(0.096)	(0.099)	(0.097)	(0.099)	(0.097)
Openness	0.064	0.154	0.078	0.154	0.078
	(0.151)	(0.148)	(0.152)	(0.148)	(0.152)
Log Time Diff. DT	0.084***		0.079***		0.078***
	(0.022)		(0.022)		(0.022)
Post-Pre Relation		0.580***	0.527***	2.105***	1.895***
		(0.154)	(0.154)	(0.425)	(0.428)
Post-Post Relation				1.527***	1.369***
				(0.420)	(0.423)
Observations	13,110	13,110	13,110	13,110	13,110
R^2	0.903	0.904	0.904	0.904	0.904

Notes: Results from estimations of gravity equations by Poisson Pseudo Maximum Likelihood (PPML). The dependent variable is bilateral export flows in 1990. Empirical specifications of the gravity equation are as in Silva and Tenreyro (2006), extended for the log time difference in the timing of the demographic transition ("Log Time Diff. DT") and dummies for a dyadic constellation of a post-transitional and a pre-transitional country ("'Post-Pre Relation'). Data sources: Silva and Tenreyro (2006) and Reher (2004). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

A.2 Derivations and Proofs

The utility function with the assumptions made in Section 1.3 can be expressed as

$$U\left(c_{it}^{b}, c_{it}^{s}, \pi_{it}n_{it}q_{it}\right) = \gamma^{b}T_{it}\ \mathrm{ln}c_{it}^{b} + \gamma^{s}T_{it}\ \mathrm{ln}c_{it}^{s} + \gamma^{n}\mathrm{ln}(\pi_{it}n_{it}q_{it}) \tag{A.1}$$

Given (A.1) the time constraint (1.6) and budget constraint (1.7) bind at the optimum. Combining both constraints delivers

$$\frac{(T_{it} - \underline{e}^{j} - \pi_{it}n_{it}r_{it}) \cdot w_{it}^{j}h^{j}(a)}{T_{it}} - p_{it}^{rel}c_{it}^{b} = c_{it}^{s}. \tag{A.2}$$

Maximizing life time utility (A.1) subject to (A.2) is equivalent to

$$\gamma^{b}T_{it}\mathrm{ln}c_{it}^{b} \ + \ \gamma^{s}T_{it}\mathrm{ln}\left[\frac{(T_{it} - \underline{e}^{j} - \pi_{it}n_{it}r_{it}) \cdot w_{it}^{j}h^{j}(a)}{T_{it}} - p_{it}^{rel}c_{it}^{b}\right] \ + \ \gamma^{n}\mathrm{ln}(\pi_{it}n_{it}q_{it}) \tag{A.3}$$

Proof of Lemma 1. Taking the first order condition with respect to c_{it}^{b}, solving for c_{it}^{b} and using (A.2) one gets

$$\begin{aligned} c_{it}^{b} &= \frac{\gamma^{b}}{\gamma^{b}+\gamma^{s}} \cdot \frac{(T_{it} - \underline{e}^{j} - \pi_{it}n_{it}r_{it}) \cdot w_{it}^{j}h^{j}(a)}{T_{it}p_{it}^{rel}} \\ c_{it}^{s} &= \frac{\gamma^{s}}{\gamma^{b}+\gamma^{s}} \cdot \frac{(T_{it} - \underline{e}^{j} - \pi_{it}n_{it}r_{it}) \cdot w_{it}^{j}h^{j}(a)}{T_{it}} \end{aligned} \tag{A.4}$$

Using (A.4), taking the first order condition with respect to n_{it}, restricting to an interior solution and substitute the derived expression for optimal fertility n_{it}^{j} into (A.4) gives the consumption levels in (1.14). Taking the first order condition with respect to r_{it} and rearranging terms gives

$$\frac{T_{it}\pi_{it}n_{it}^{j}(\gamma^{b}+\gamma^{s})}{(T_{it} - \underline{e}^{j} - \pi_{it}n_{it}^{j}r_{it})} \leq \frac{\gamma^{n}}{q_{it}} \cdot \frac{\partial q_{it}}{\partial r_{it}} \tag{A.5}$$

Noting that the left side of (A.5) is equal to γ^{n}/r_{it} implies $[r_{it}q_{r}(r_{it}, g_{it+1}^{s})]/q_{it}\left(r_{it}, g_{it+1}^{s}\right) \geq 1$. Given the functional form of (1.5) gives r_{it}^{j} in (1.15). □

Proof of Lemma 2. The optimal type of human capital maximizes the indirect utility obtained from $j = \{u, s\}$. Evaluating the indirect utility substituting for $c_{it}^{b,j}$, $c_{it}^{s,j}$, n_{it}^{j} and noting

$r_{it}^{j} = r_{it}^{u} = r_{it}^{s}$ implies that the optimal type of human capital depends on

$$[w_{it}^{u} h^{u} (T_{it} - \underline{e}^{u})]^{T_{it}(\gamma^{b}+\gamma^{s})} \cdot (T_{it} - \underline{e}^{u})^{\gamma^{n}} \lesseqgtr [w_{it}^{s} h^{s}(a) (T_{it} - \underline{e}^{s})]^{T_{it}(\gamma^{b}+\gamma^{s})} \cdot (T_{it} - \underline{e}^{s})^{\gamma^{n}} \tag{A.6}$$

Since the indirect utility obtained by acquiring skilled human capital increases with ability, there exists a unique $\tilde{a}_{it}$ such that all individuals with $a \leq \tilde{a}_{it}$ optimally choose to acquire unskilled human capital, $j = u$, and all individuals with $a > \tilde{a}_{it}$ acquire skilled human capital, $j = s$. Solving (A.6) with equality gives (1.17). □

Lemma 3. *For any* $\{\lambda_{it} \in (0,1), x_{it} \in (0,1), A_{it}^{b} \in (0,\infty), A_{it}^{s} \in (0,\infty), p_{it}^{rel} \in (0,\infty)\}$ *there exists a unique share of unskilled labor employed in the basic sector* θ_{it}^{*b} *implicitly defined by*

$$-\ln\left[1 - x_{it} + x_{it}\left(\frac{H_{it}^{s,s}}{H_{it}^{s,u}}\right)^{\eta}\right] = \frac{\eta}{1-\eta}\ln\left[\frac{A_{it}^{s}}{p_{it}^{rel} A_{it}^{b}}(1 - x_{it})\right] \tag{A.7}$$

such that $w_{it}^{b,u} = w_{it}^{s,u} = w_{it}^{u}$.

Proof of Lemma 3. Solving $w_{it}^{b,u} = w_{it}^{s,u}$ and taking the natural logarithm gives (A.7). □

Proof of Proposition 1. The aggregate levels of human capital across sectors are given by

$$\begin{aligned}
H_{it}^{b,u} &= \theta_{it}^{b} \cdot H_{it}^{u} = \theta_{it}^{b} N_{it} l_{it}^{u} h^{u} \int_{0}^{\tilde{a}_{it}} f(a) da \\
H_{it}^{s,u} &= (1 - \theta_{it}^{b}) \cdot H_{it}^{u} = (1 - \theta_{it}^{b}) N_{it} l_{it}^{u} h^{u} \int_{0}^{\tilde{a}_{it}} f(a) da \\
H_{it}^{s,s} &= H_{it}^{s} = N_{it} l_{it}^{s} \int_{\tilde{a}_{it}}^{1} h^{s}(a) f(a) da
\end{aligned} \tag{A.8}$$

The ratio of competitively determined wages under wage equalization for unskilled labor across sector is

$$\frac{w_{it}^{u}}{w_{it}^{s}} = \frac{(1 - x_{it})}{x_{it}}\left(\frac{H_{it}^{s,s}}{H_{it}^{s,u}}\right)^{1-\eta} = \frac{(1 - x_{it})}{x_{it}}\left(\frac{l_{it}^{s}}{l_{it}^{u}} \frac{\int_{\tilde{a}_{it}}^{1} h^{s}(a) f(a) da}{(1 - \theta_{it}^{b}) h^{u} \int_{0}^{\tilde{a}_{it}} f(a) da}\right)^{1-\eta} \tag{A.9}$$

Substituting (A.9) into (1.17) gives the general equilibrium ability threshold

$$\frac{h^{u}\left(\int_{\tilde{a}_{it}}^{1} h^{s}(a) f(a) da\right)^{1-\eta}}{h^{s}(\tilde{a}_{it})\left(\int_{0}^{\tilde{a}_{it}} h^{u} f(a) da\right)^{1-\eta}} = \frac{x_{it}\left(1 - \theta_{it}^{b}\right)^{1-\eta}}{(1 - x_{it})}\left(\frac{T_{it} - \underline{e}^{s}}{T_{it} - \underline{e}^{u}}\right)^{\frac{T_{it}(\gamma^{b}+\gamma^{s})+\gamma^{n}}{T_{it}(\gamma^{b}+\gamma^{s})}+(\eta-1)} \tag{A.10}$$

Rearranging (A.10) to get the equilibrium relationship between $\tilde{a}_{it}$ and T_{it} expressed as

$$G(\tilde{a}_{it})^{1-\eta} \cdot F(x_{it}, \theta_{it}^{b}) - \left(\frac{T_{it} - \underline{e}^{s}}{T_{it} - \underline{e}^{u}}\right)^{\frac{T_{it}(\gamma^{b}+\gamma^{s})+\gamma^{n}}{T_{it}(\gamma^{b}+\gamma^{s})}+(\eta-1)} = 0 \tag{A.11}$$

where $F(x_{it}, \theta_{it}^{b}) = \dfrac{(1-x_{it})}{x_{it}\left(1-\theta_{it}^{b}\right)^{1-\eta}}$ and

$$G(\tilde{a}_{it}) = \frac{(h^{u})^{\frac{1}{1-\eta}} \int_{\tilde{a}_{it}}^{1} h^{s}(a)\, f(a)da}{h^{s}(\tilde{a}_{it})^{\frac{1}{1-\eta}} \int_{0}^{\tilde{a}_{it}} h^{u}\, f(a)da} \tag{A.12}$$

with $G'(\tilde{a}_{it}) = \dfrac{\partial G(\tilde{a}_{it})}{\partial \tilde{a}_{it}} < 0$. Recall that $\left(\dfrac{T_{it} - \underline{e}^{s}}{T_{it} - \underline{e}^{u}}\right) \in (0,1)$ for $T_{it} \in (\underline{e}^{s}, \infty)$.

For any $\{x_{it} \in (0,1), \theta_{it}^{b} \in (0,1)\}$, the function (A.11) is defined over the range $\tilde{a}_{it} \in (\underline{a}(x_{it}, \theta_{it}^{b}), 1]$ where

$$\underline{a}(x_{it}, \theta_{it}^{b}) : G\left(\underline{a}(x_{it}, \theta_{it}^{b})\right)^{1-\eta} F(x_{it}, \theta_{it}^{b}) = 1 \tag{A.13}$$

with

$$\frac{\partial \underline{a}(x_{it}, \theta_{it}^{b})}{\partial x_{it}} < 0, \lim_{x_{it}\to 0} \underline{a}(x_{it}, \theta_{it}^{b}) = 1, \lim_{x_{it}\to 1} \underline{a}(x_{it}, \theta_{it}^{b}) = 0$$

$$\frac{\partial \underline{a}(x_{it}\theta_{it}^{b})}{\partial \theta_{it}^{b}} > 0, \lim_{\theta_{it}^{b}\to 0} \underline{a}(x_{it}, \theta_{it}^{b}) = 0, \lim_{\theta_{it}^{b}\to 1} \underline{a}(x_{it}, \theta_{it}^{b}) = 1.$$

Accordingly for any $\{x_{it} \in (0,1), \theta_{it}^{b} \in (0,1)\}$, there exists a level $\underline{\lambda}_{it} < 1$ which represents the maximum share of the population in generation t which would acquire skilled human capital in the case in which $T_{it} \to \infty$. By totally differentiating (A.11) one gets

$$\frac{d\tilde{a}_{it}}{dT_{it}} = \frac{\dfrac{\partial \left(\dfrac{T_{it} - \underline{e}^{s}}{T_{it} - \underline{e}^{u}}\right)^{\frac{T_{it}(\gamma^{b}+\gamma^{s})+\gamma^{n}}{T_{it}(\gamma^{b}+\gamma^{s})}+(\eta-1)}}{\partial T_{it}}}{(1-\eta)G(\tilde{a}_{it})^{-\eta}G'(\tilde{a}_{it})F(x_{it}, \theta_{it}^{b})} < 0 \tag{A.14}$$

which is negative since $G'(\tilde{a}_{it}) < 0$.

For $T_{it} = \underline{e}^{s}$, $\tilde{a}_{it} = 1$ which implies $G(\tilde{a}_{it}) = 0$ and hence $G(\tilde{a}_{it})^{-\eta} = \infty$. Since $G'(1)$ is a finite number, the denominator goes to infinity as $T_{it} \to \underline{e}^{s}$. The numerator has a limit at zero.

For $T_{it} \to \infty$, $\tilde{a}_{it} \to \underline{a}(x_{it}, \theta^b_{it}) < 1$. The denominator is a finite number. The numerator has a limit at zero. If follows

$$\lim_{T_{it} \to \underline{e}^s} \frac{d\tilde{a}_{it}}{dT_{it}} = \lim_{T_{it} \to \infty} \frac{d\tilde{a}_{it}}{dT_{it}} = 0 \tag{A.15}$$

which implies that the equilibrium locus (1.18) is convex for $T_{it} = \underline{e}^s$ and concave for $T_{it} \to \infty$. □

Lemma 4. *Total factor productivity in both sectors, A^b_{it},A^s_{it}, and the relative productivity of skilled human capital, x_{it}, increase monotonically over generations with $\lim_{t\to\infty} x_{it} = 1$ and $\lim_{t\to\infty} A^b_{it} = \lim_{t\to\infty} A^s_{it} \to +\infty$.*

Proof of Lemma 4. From Proposition 1 for any $T_{it} > \underline{e}^s$, $x_{it} > 0$ and $\theta^b_{it} > 0$, there is $\lambda_{it} > 0$. From (1.13) this implies that $x_{it} > x_{it-1}$ for all t with $\lim_{t\to\infty} x_{it} = 1$. From (1.12) it follows that $g^b_{it} > 0$ and $g^s_{it} > 0$. Accordingly, $\lim_{t\to\infty} A^b_{it} = \lim_{t\to\infty} A^s_{it} \to +\infty$ for any $A^b_{i0} > 0$ and $A^s_{i0} > 0$. □

Corollary 1. *The share of unskilled individuals employed in the basic sector is increasing over generations with $\lim_{t\to\infty} \theta^b_{it} = 1$.*

Proof of Corollary 1. As follows from Lemma 4, relative productivity of skilled individuals in the skill-intensive sector increases over time until no unskilled individuals are employed in the skill-intensive sector as $\lim_{t\to\infty} x_{it} = 1$. Additionally, $\lim_{x_{it}\to 1} w^{s,u}_{it} = 0$. Since preferences are such that both goods are demanded and consumed in every generation, both goods must be produced under autarky. Hence, $\lim_{t\to\infty} \theta^b_{it} = \lim_{x_{it}\to 1} \theta^b_{it} = 1$. Then the equilibrium ability threshold $\tilde{a}_{it}$ sorts the individuals into the two production sectors. □

Lemma 5. *The share of skilled individuals on the balanced growth path is at a constant, unique level $\overline{\lambda}_{it}$ as $\lim_{t\to\infty} x_{it} = 1$.*

Proof of Lemma 5. As $\lim_{t\to\infty} x_{it} = \lim_{t\to\infty} \theta^b_{it} = 1$, equilibrium on the goods market still stipulates relative supply must be equal to relative demand and is then given by

$$\frac{Y^b_{it}}{Y^s_{it}} = \frac{\gamma^b}{p^{rel}_{it}\gamma^s} \Leftrightarrow \frac{A^b_{it}H^{b,u}_{it}p^{rel}_{it}}{A^s_{it}H^{s,s}_{it}} = \frac{\gamma^b}{\gamma^s} \Leftrightarrow \frac{w^{b,u}_{it}H^{b,u}_{it}}{w^{s,s}_{it}H^{s,s}_{it}} = \frac{\gamma^b}{\gamma^s} \tag{A.16}$$

Plugging the relative wage rate from (A.16) into (1.17) and rearranging terms gives

$$\frac{\left(\frac{h^s(\tilde{a}_{it})\int_0^{\tilde{a}_{it}} f(a)da}{\int_{\tilde{a}_{it}}^1 h^s(a)f(a)da}\right)}{\left(\frac{T_{it}-\underline{e}^u}{T_{it}-\underline{e}^s}\right)^{\frac{\gamma^n}{T_{it}(\gamma^b+\gamma^s)}}} = \frac{\gamma^b}{\gamma^s}. \tag{A.17}$$

The general equilibrium ability threshold $\tilde{a}_{it}$ approaches $\bar{a}_i$ since the right-hand side of equation (A.17) is constant. It follows that there is an unique, constant equilibrium share of skilled individuals $\overline{\lambda}_{it}$ on the balanced growth path. Recall that the individual takes the demographic conditions, T_{it}, as given. □

Corollary 2. *On the balanced growth path, the growth rates of total factor productivity in both sectors are* $\lim_{t\to\infty} g_{it}^b = \phi^b\overline{\lambda}_{it}$ *and* $\lim_{t\to\infty} g_{it}^s = \phi^s\overline{\lambda}_{it}$*. Life expectancy reaches an upper bound with* $\lim_{t\to\infty} T_{it} = T_{it}\left(s_{it}(\overline{\lambda}_{it})\right)$*.*

Proof of Corollary 2. Follows from (1.2), (1.3), (1.12) and Lemma 5. □

Proof of Proposition 2. The equilibrium relationship linking $\tilde{a}_{it}$ and T_{it} is given in (A.11). For any T_{it}, $\tilde{a}_{it}$ is an implicit function of x_{it} and θ_{it}^b. Recall that by implicit differentiation of (A.10) $\partial\tilde{a}_{it}/\partial x_{it} < 0$, which implies that the equilibrium share of skilled individuals is increasing in x_{it}: $\partial\lambda_{it}/\partial x_{it} > 0$ for any T_{it}.

Consider part (i). If $x_{i0} \simeq 0$, $A_{i0}^b \simeq 0$ and $A_{i0}^s \simeq 0$, then $\underline{a}(0,\theta_{it}^b) \simeq 1$; for all $T_{it} \in (\underline{e}^s, \infty)$, which implies $\tilde{a}_i \simeq 1$ and $\lambda_i \simeq 0$. In this case the two loci Λ and $T\left(s_{it}\right)$ cross only once for $\lambda_i \simeq 0$ and $T_i \simeq T\left(\underline{s}_i\right)$, and average fertility is given by n^u as implied by (1.14) evaluated at $T_i \simeq T\left(\underline{s}_i\right)$. Under these conditions from (1.8) and (1.9) the level of income per capita is (arbitrarily) low which, from (1.1) and $\lambda_i \simeq 0$ implies $\pi_{i0} \simeq \underline{\pi}$.

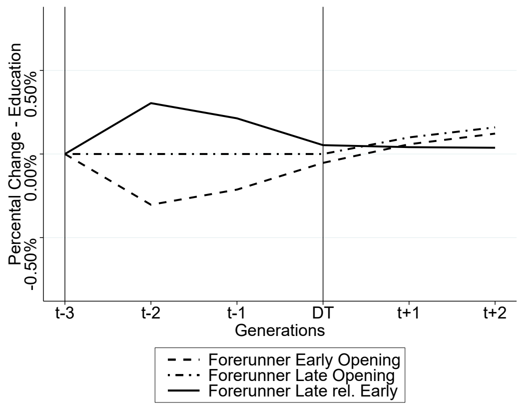
Consider part (ii). Part (ii) follows from Lemma 4, Lemma 5, Corollary 1 and Corollary 2, where $A_{i\infty}^b \to \infty$, $A_{i\infty}^s \to \infty$, $x_{i\infty} \to 1$, $\theta_{i\infty}^b \to 1$, $\lambda_{i\infty} \to \overline{\lambda}_{i\infty}$ and $T_{i\infty} \to T_{i\infty}\left(s_{i\infty}(\overline{\lambda}_{i\infty})\right)$. It implies $g_{i\infty}^b = \phi^b\overline{\lambda}_{i\infty}$ and $g_{i\infty}^s = \phi^s\overline{\lambda}_{i\infty}$. Finally, since $A_{i\infty}^b \to \infty$, $A_{i\infty}^s \to \infty$, it follows that $y_{i\infty} \to \infty$ and from (1.1), $\pi_{i\infty} \simeq 1$, so that fertility is given as in (1.21). Part (iii) follows from combining part (i), part (ii), Lemma 4, Lemma 5, Corollary 1 and Corollary 2. □

A.3 Sensitivity Checks

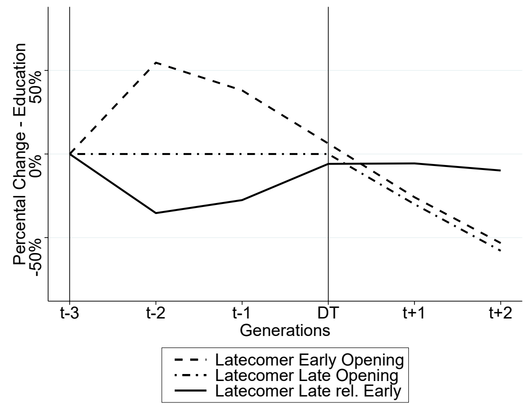
A.3.1 Variation in Trade Costs

Forerunner Economy

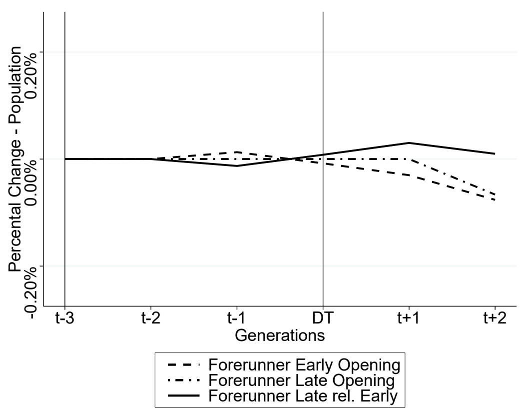
Latecomer Economy



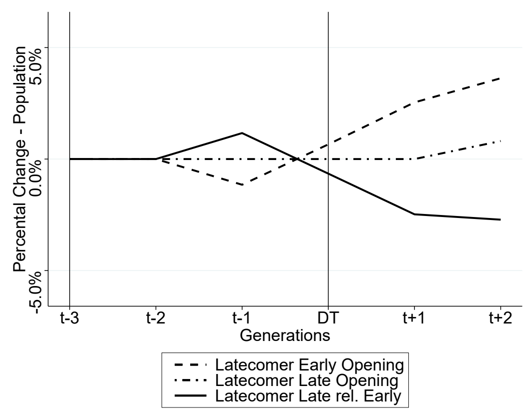
(a) Share of Educated Individuals



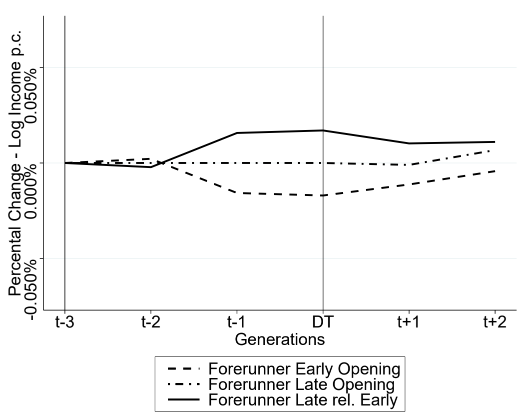
(b) Share of Educated Individuals



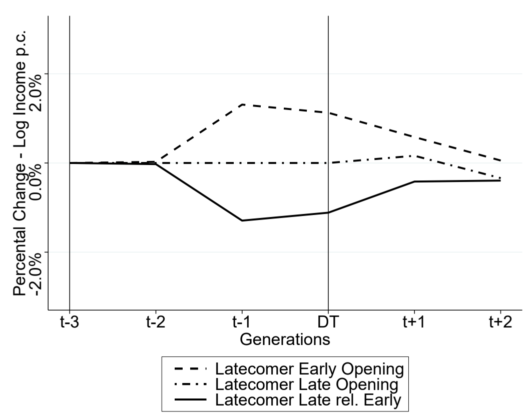
(c) Population



(d) Population



(e) Log Income p.c.

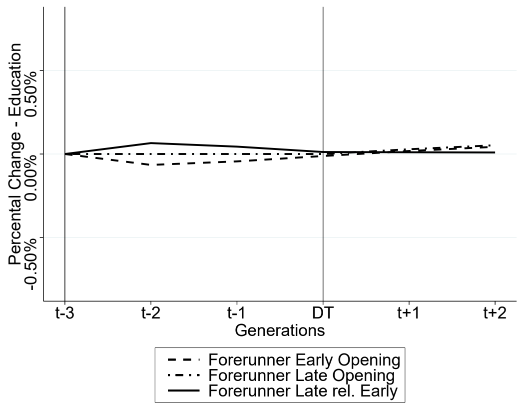


(f) Log Income p.c.

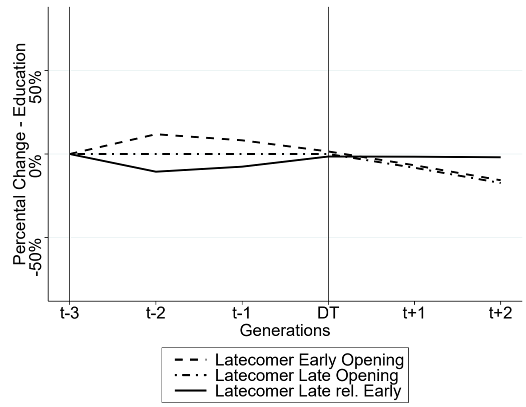
Figure A.1: *Effects of International Trade* $\xi = 0.6$ - *Variation Trade Costs*

Forerunner Economy

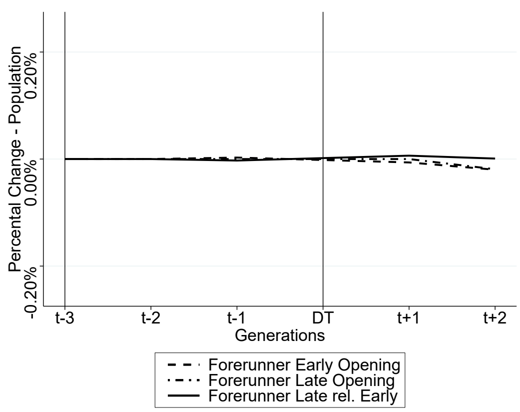
Latecomer Economy



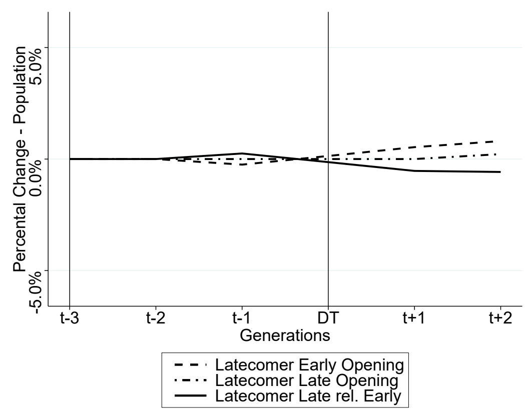
(a) Share of Educated Individuals



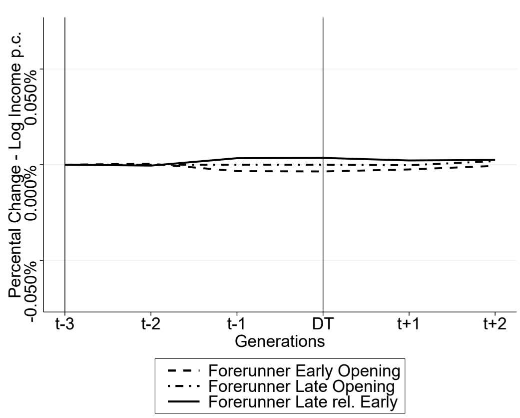
(b) Share of Educated Individuals



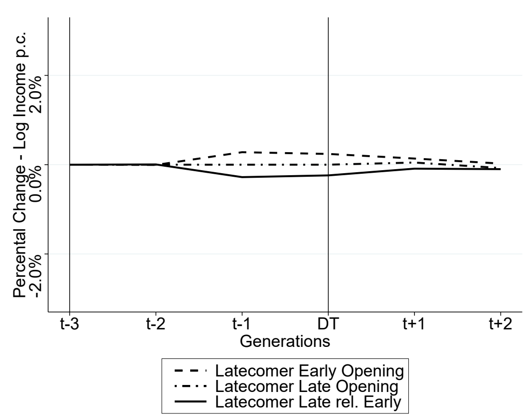
(c) Population



(d) Population



(e) Log Income p.c.

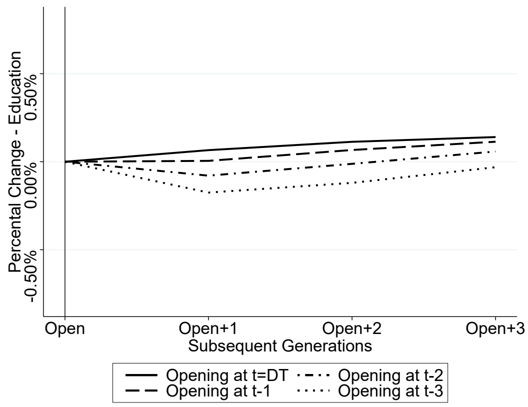


(f) Log Income p.c.

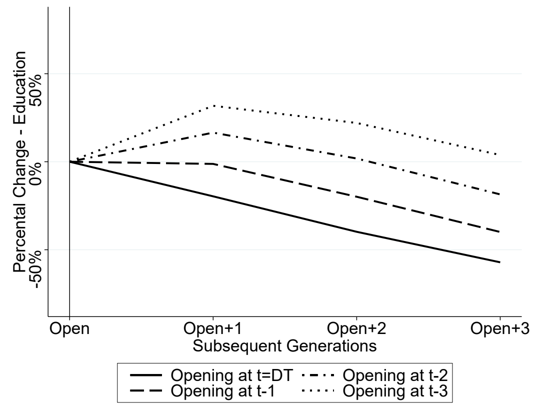
Figure A.2: *Effects of International Trade* $\xi = 0.90$ - *Variation Trade Costs*

A.3.2 Alternative Timing of Opening ($t-3$, $t-2$, $t-1$)

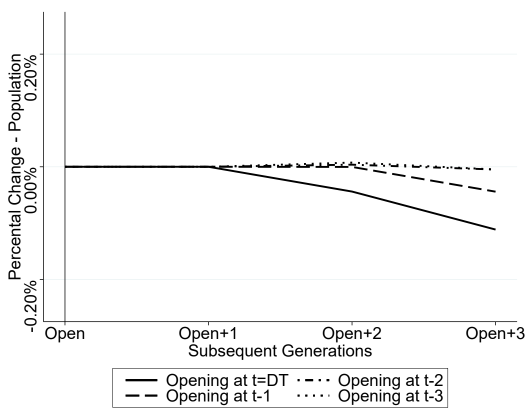
Forerunner Economy | Latecomer Economy



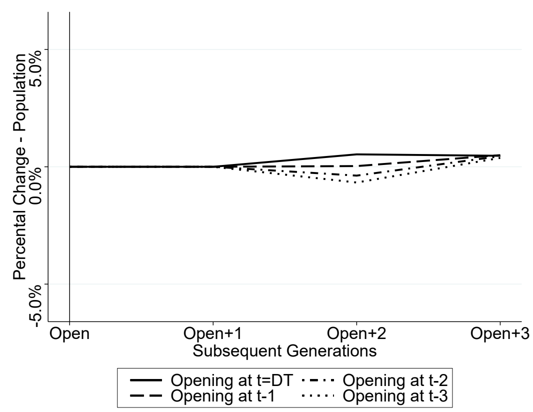
(a) Share of Educated Individuals



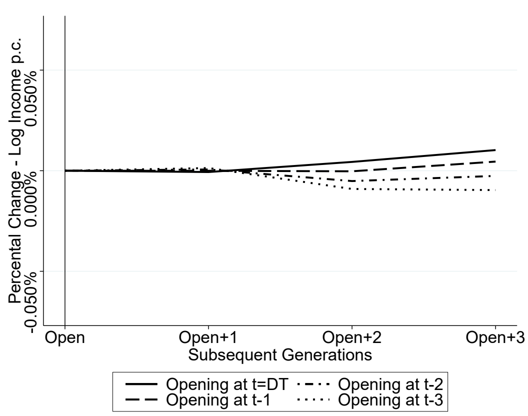
(b) Share of Educated Individuals



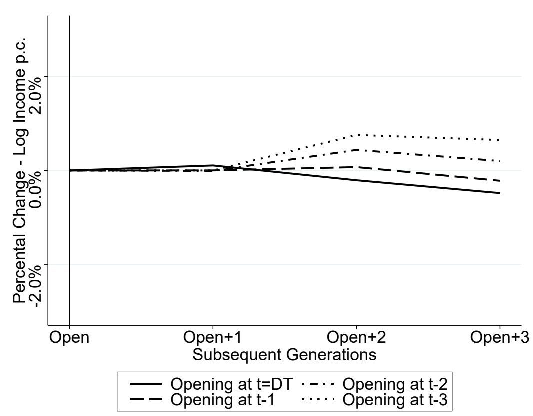
(c) Population



(d) Population



(e) Log Income p.c.

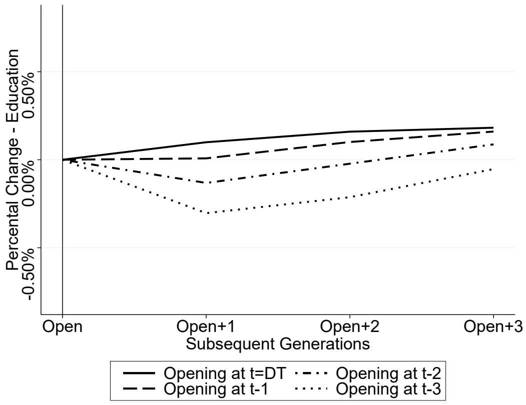


(f) Log Income p.c.

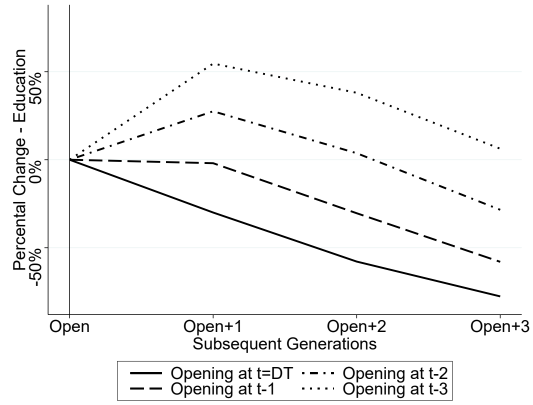
Figure A.3: *Effects of International Trade* $\xi = 0.75$ - *Opening* $(t-3, t-2, t-1)$

Forerunner Economy

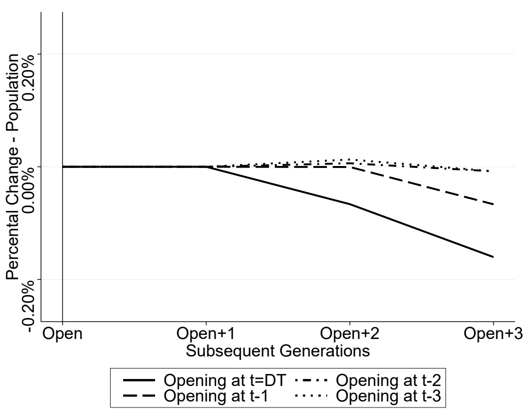
Latecomer Economy



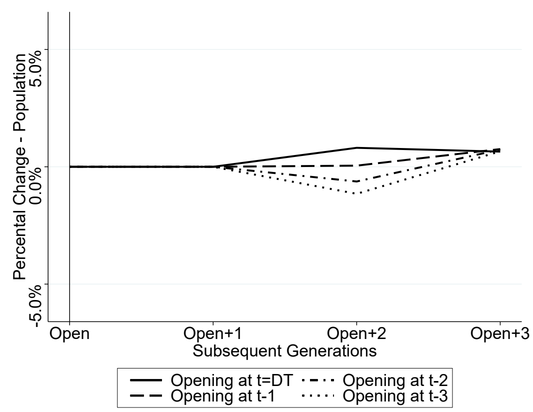
(a) Share of Educated Individuals



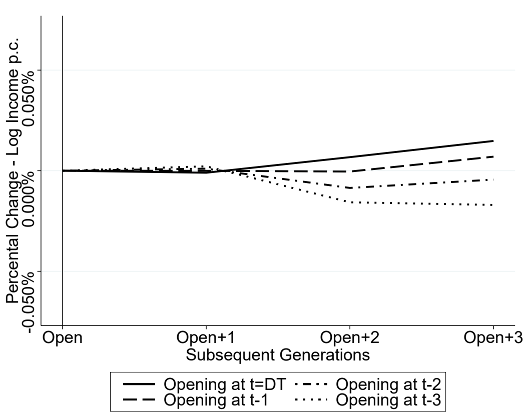
(b) Share of Educated Individuals



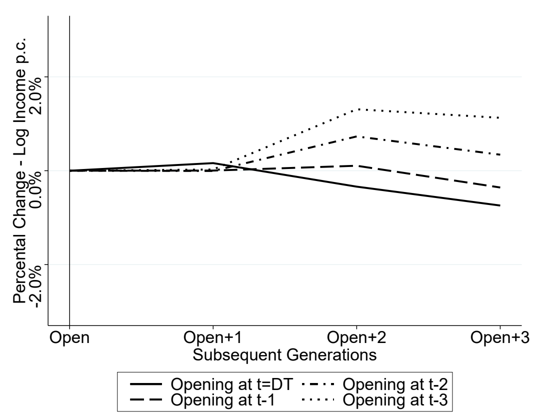
(c) Population



(d) Population



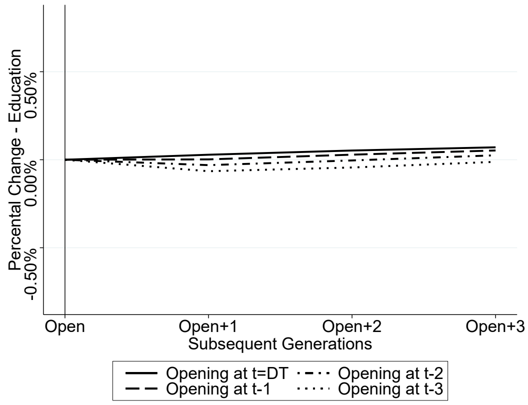
(e) Log Income p.c.



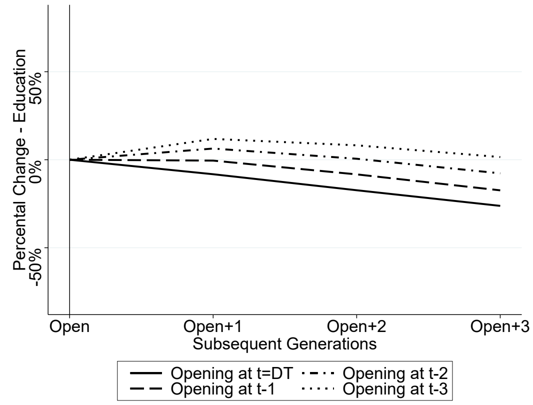
(f) Log Income p.c.

Figure A.4: *Effects of International Trade* $\xi = 0.60$ - *Opening* $(t-3, t-2, t-1)$

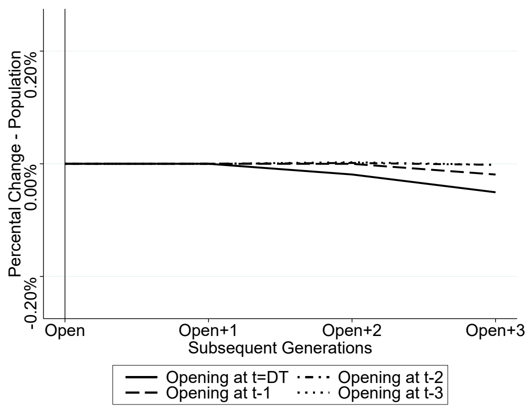
Forerunner Economy | Latecomer Economy



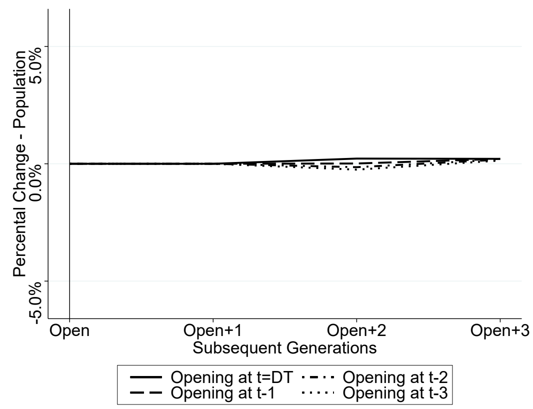
(a) Share of Educated Individuals



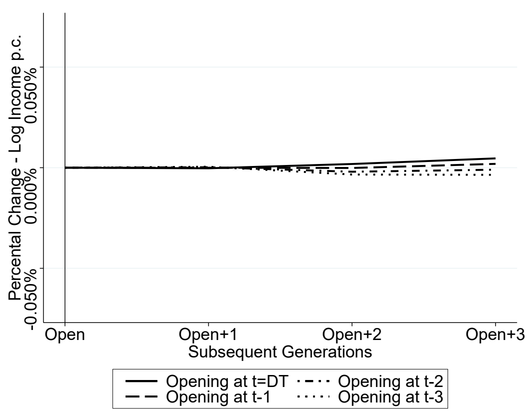
(b) Share of Educated Individuals



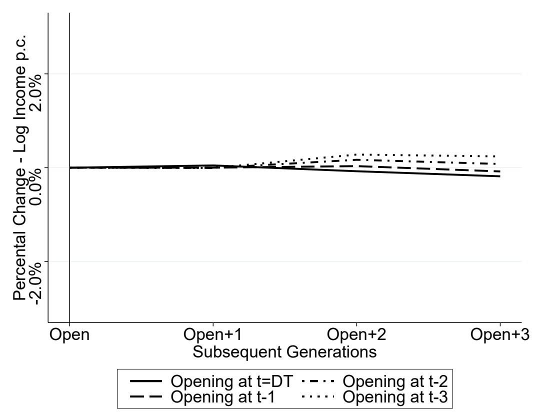
(c) Population



(d) Population



(e) Log Income p.c.



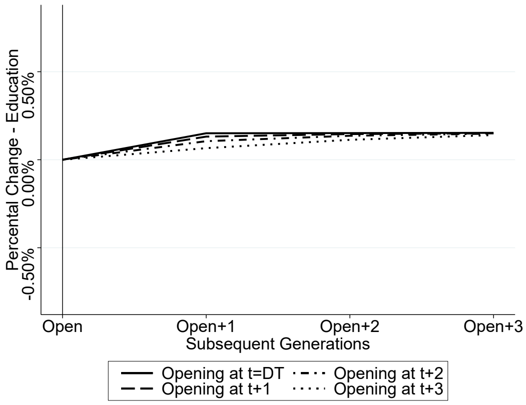
(f) Log Income p.c.

Figure A.5: *Effects of International Trade* $\zeta = 0.90$ - *Opening* $(t-3, t-2, t-1)$

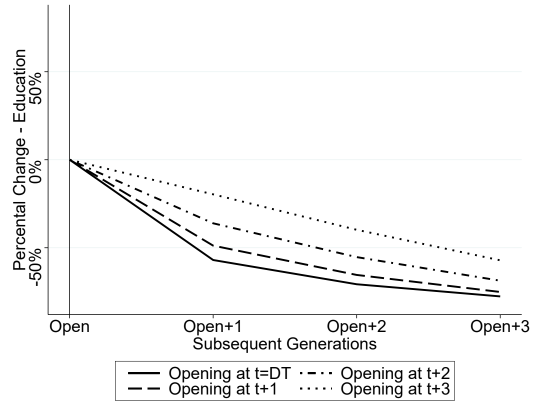
A.3.3 Later Timing of Opening ($t+1$, $t+2$, $t+3$)

Forerunner Economy

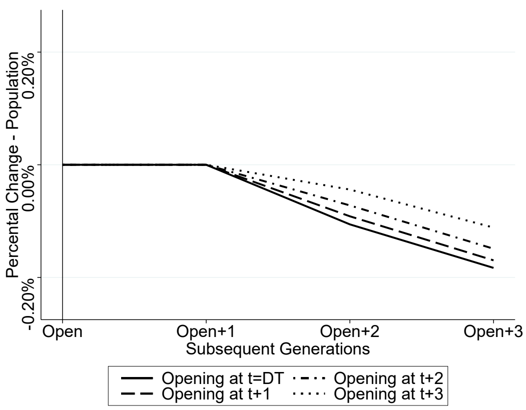
Latecomer Economy



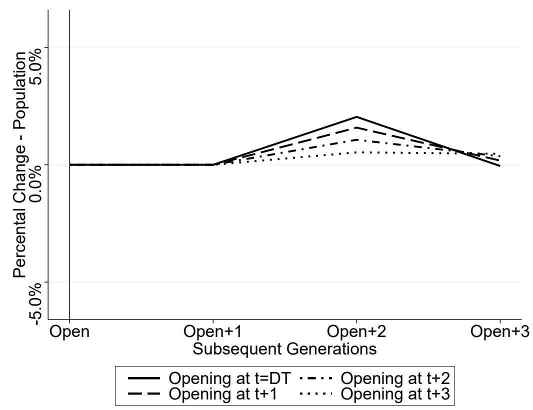
(a) Share of Educated Individuals



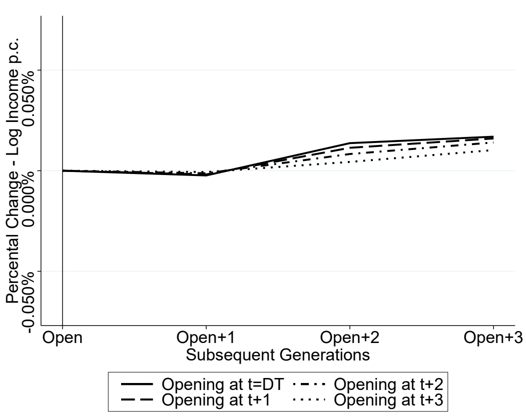
(b) Share of Educated Individuals



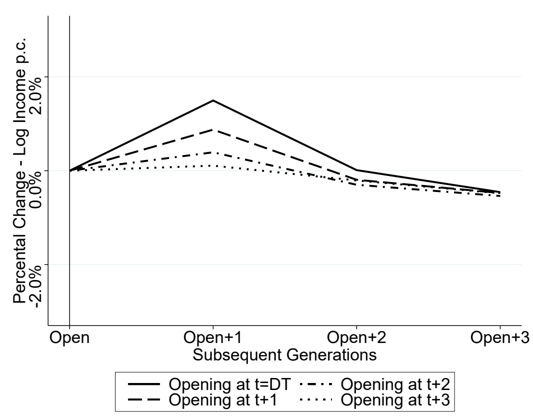
(c) Population



(d) Population

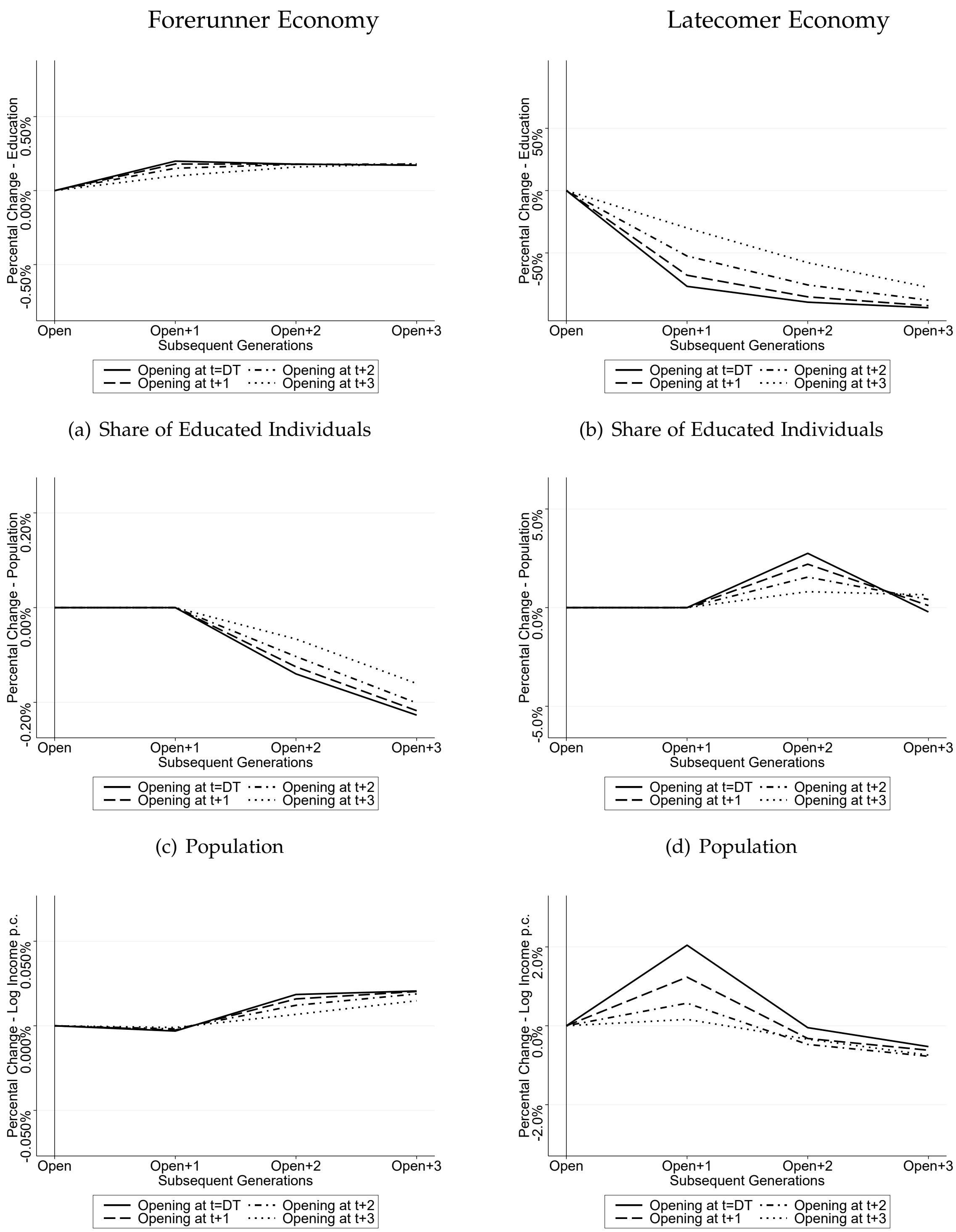


(e) Log Income p.c.



(f) Log Income p.c.

Figure A.6: *Effects of International Trade* $\xi = 0.75$ - *Opening* ($t+1$, $t+2$, $t+3$)



(a) Share of Educated Individuals

(b) Share of Educated Individuals

(c) Population

(d) Population

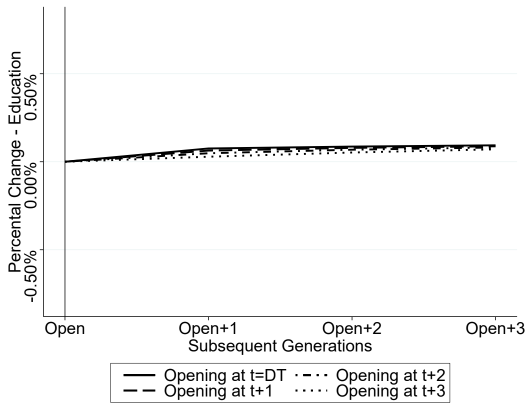
(e) Log Income p.c.

(f) Log Income p.c.

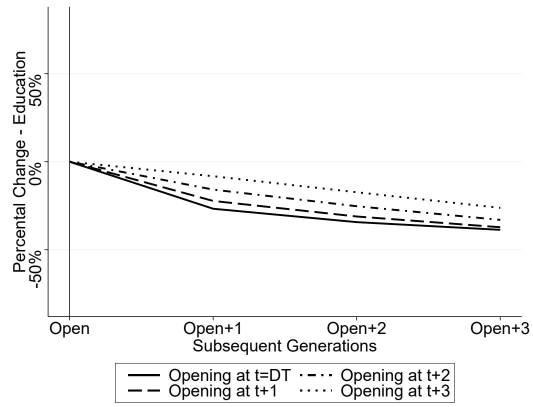
Figure A.7: *Effects of International Trade* $\xi = 0.6$ - *Opening* ($t+1$, $t+2$, $t+3$)

Forerunner Economy

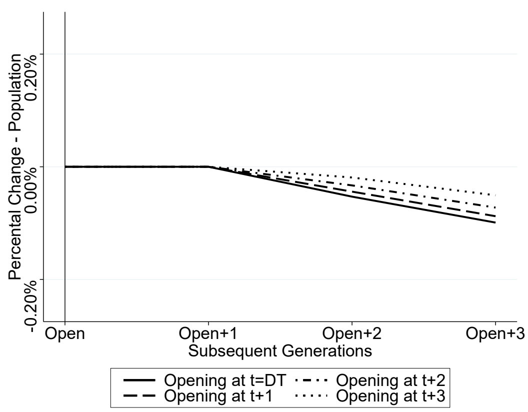
Latecomer Economy



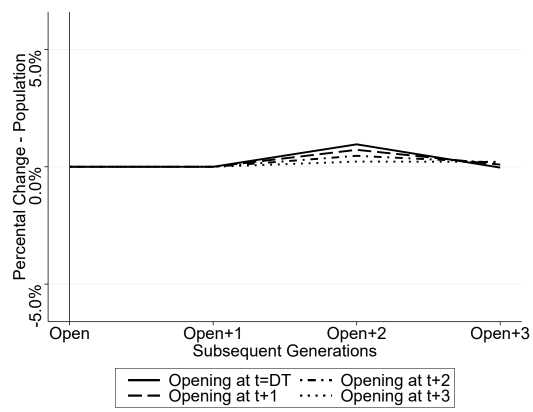
(a) Share of Educated Individuals



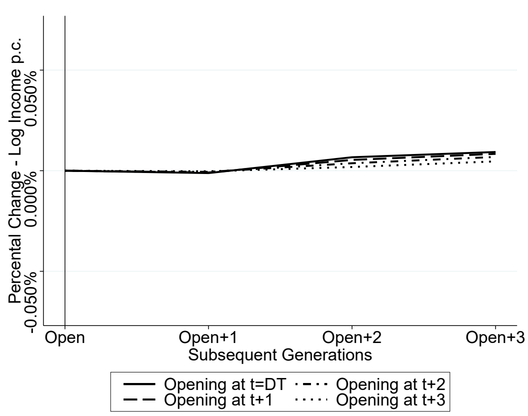
(b) Share of Educated Individuals



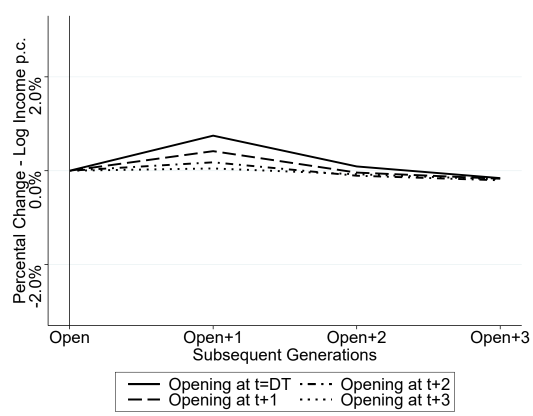
(c) Population



(d) Population



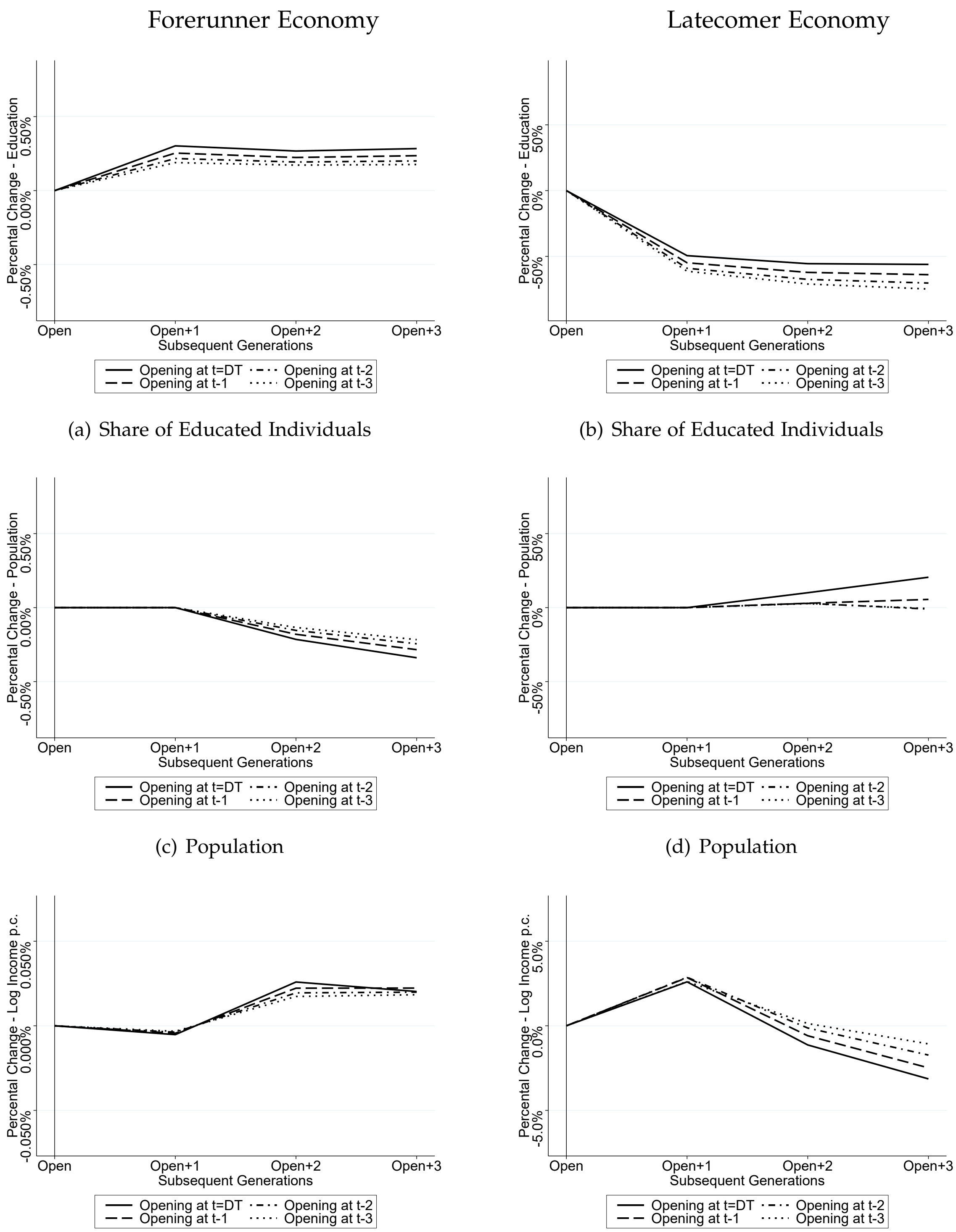
(e) Log Income p.c.



(f) Log Income p.c.

Figure A.8: *Effects of International Trade* $\xi = 0.9$ - *Opening* $(t+1, t+2, t+3)$

A.3.4 Timing of Opening Before Demographic Transition of Latecomer Economy ($t-3$, $t-2$, $t-1$, t)



(a) Share of Educated Individuals

(b) Share of Educated Individuals

(c) Population

(d) Population

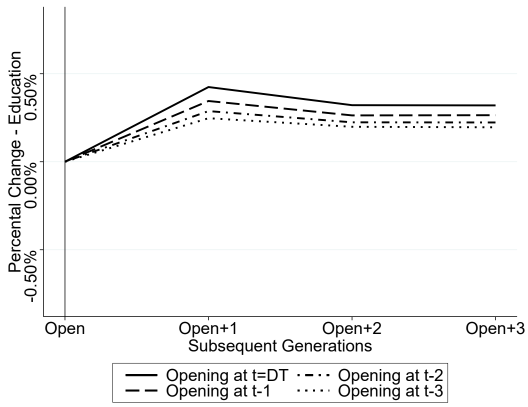
(e) Log Income p.c.

(f) Log Income p.c.

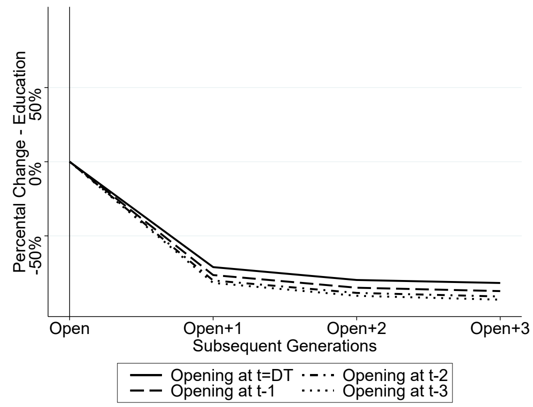
Figure A.9: *Effects of International Trade* $\xi = 0.75$ *- Opening Latecomer Economy* $(t-3, t-2, t-1, t)$

Forerunner Economy

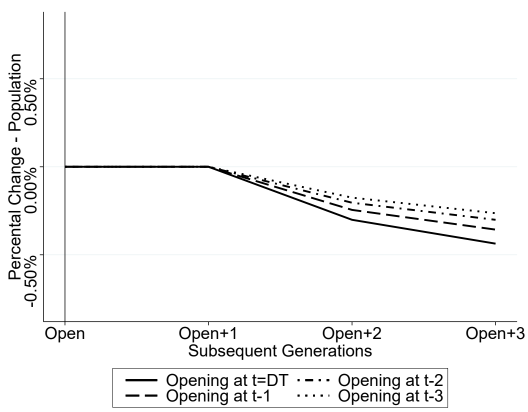
Latecomer Economy



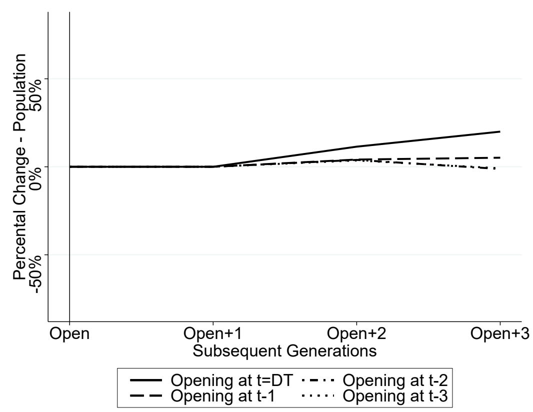
(a) Share of Educated Individuals



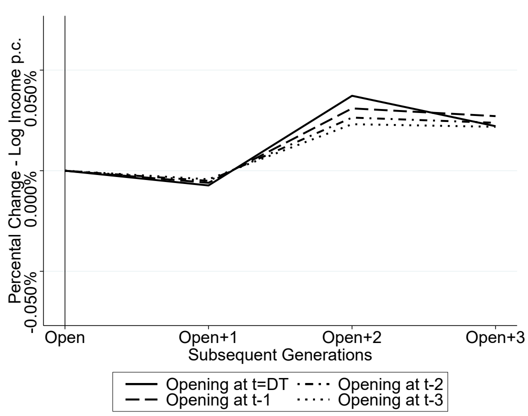
(b) Share of Educated Individuals



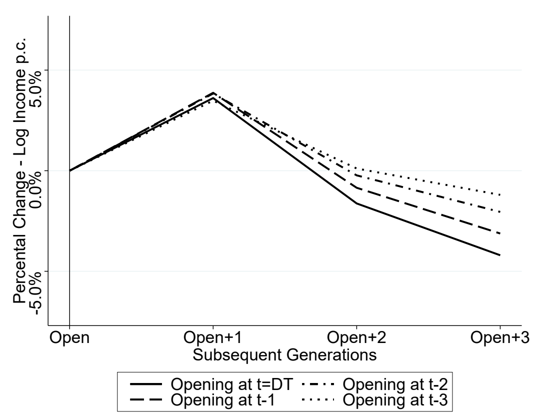
(c) Population



(d) Population



(e) Log Income p.c.

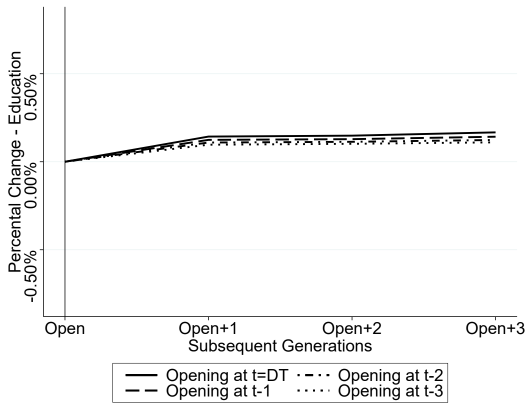


(f) Log Income p.c.

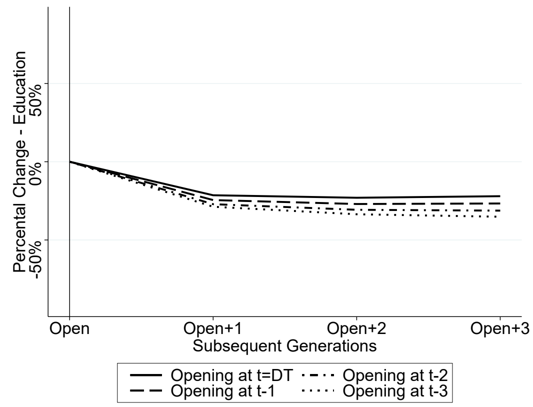
Figure A.10: *Effects of International Trade* $\xi = 0.6$ - *Opening Latecomer Economy* ($t-3$, $t-2$, $t-1$, t)

Forerunner Economy

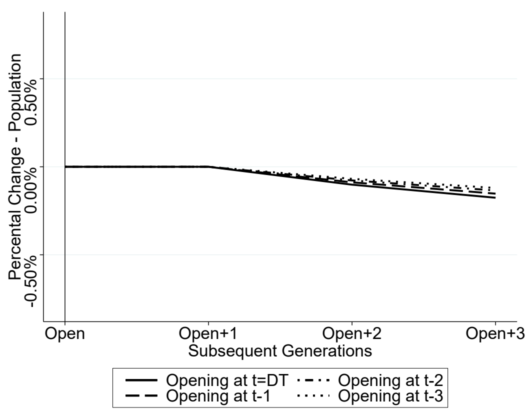
Latecomer Economy



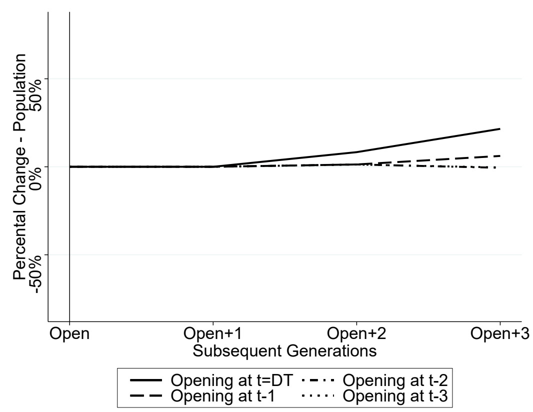
(a) Share of Educated Individuals



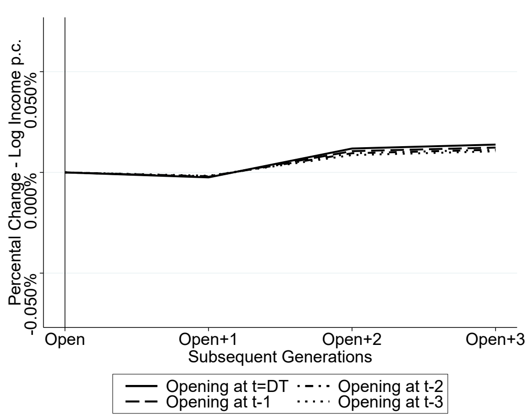
(b) Share of Educated Individuals



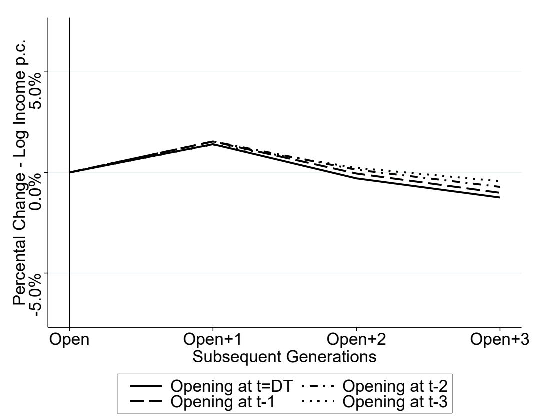
(c) Population



(d) Population



(e) Log Income p.c.

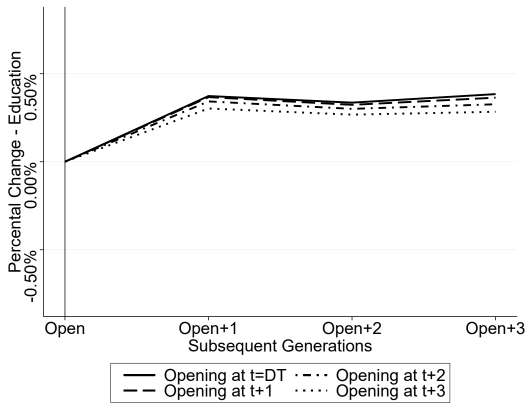


(f) Log Income p.c.

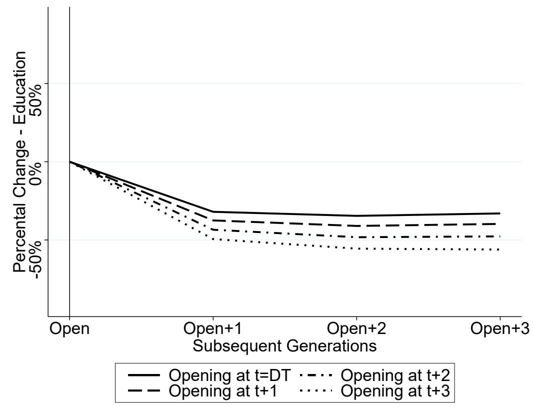
Figure A.11: *Effects of International Trade* $\xi = 0.9$ - *Opening Latecomer Economy* ($t-3$, $t-2$, $t-1$, t)

A.3.5 Timing of Opening After Demographic Transition of Latecomer Economy (t, $t+1$, $t+2$, $t+3$)

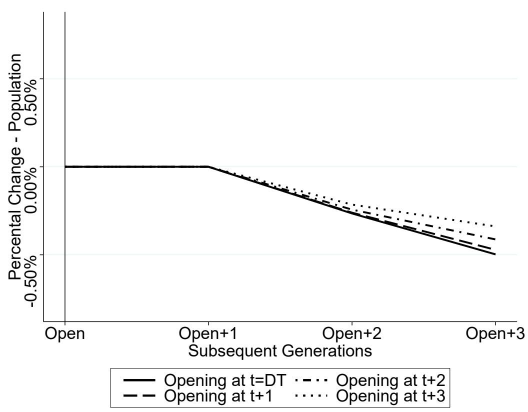
Forerunner Economy　　　　Latecomer Economy



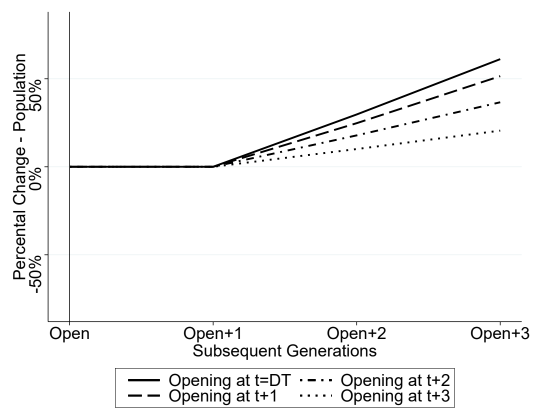
(a) Share of Educated Individuals



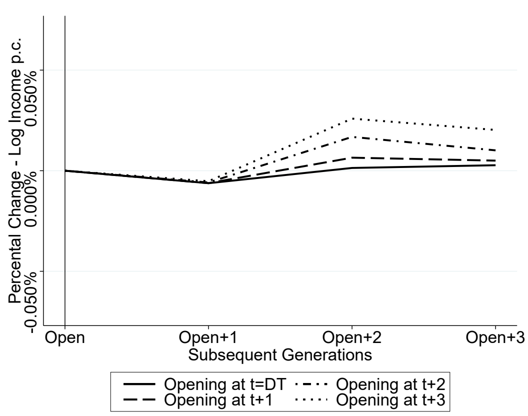
(b) Share of Educated Individuals



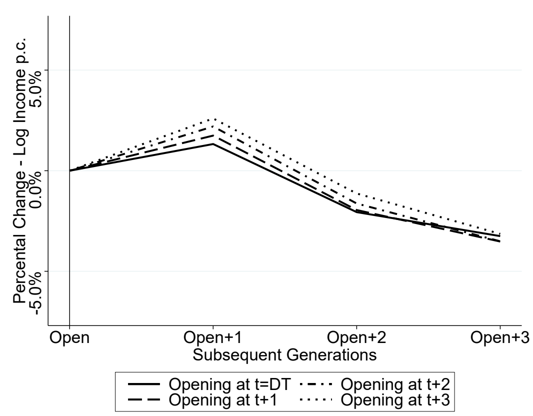
(c) Population



(d) Population

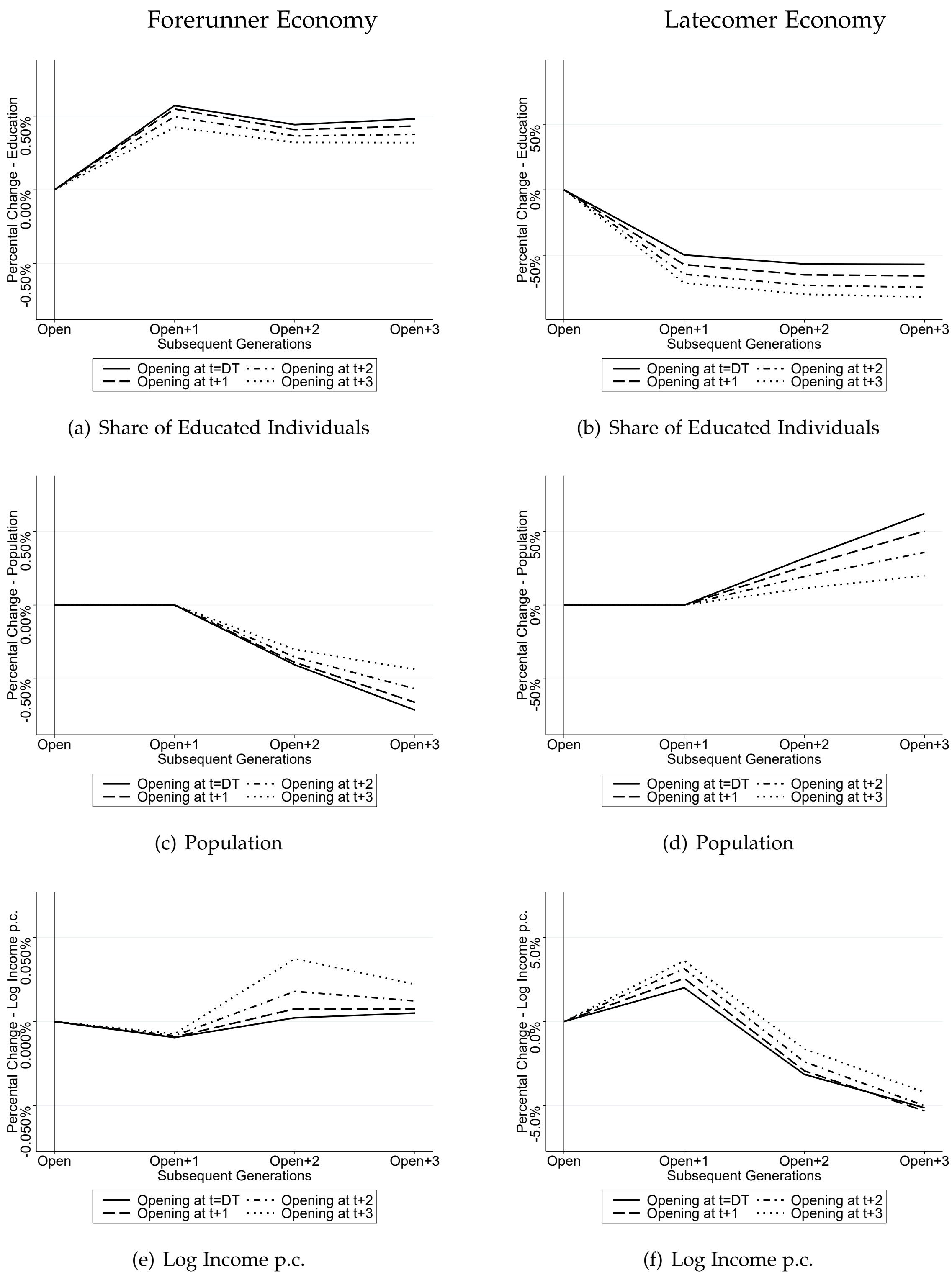


(e) Log Income p.c.



(f) Log Income p.c.

Figure A.12: *Effects of International Trade* $\xi = 0.75$ - *Opening Latecomer Economy (*t*,* $t+1$*,* $t+2$*,* $t+3$*)*



(a) Share of Educated Individuals

(b) Share of Educated Individuals

(c) Population

(d) Population

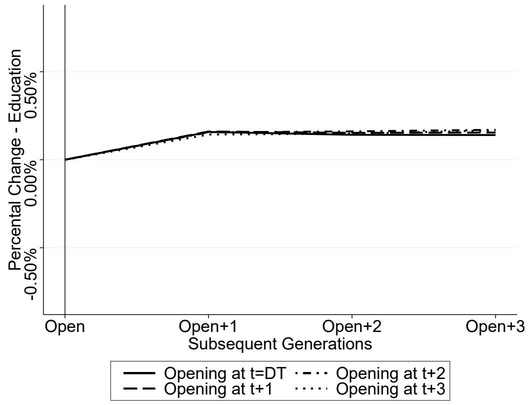
(e) Log Income p.c.

(f) Log Income p.c.

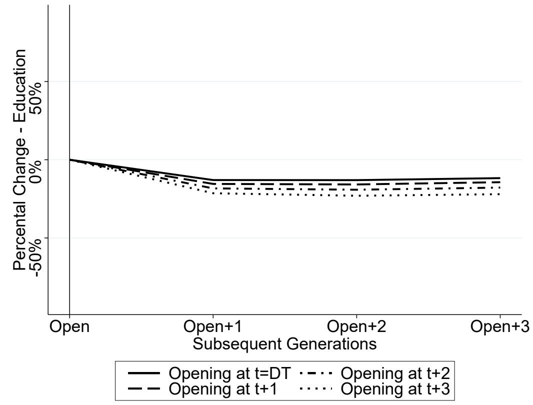
Figure A.13: *Effects of International Trade* $\xi = 0.6$ *- Opening Latecomer Economy (*t*,* $t+1$*,* $t+2$*,* $t+3$*)*

Forerunner Economy

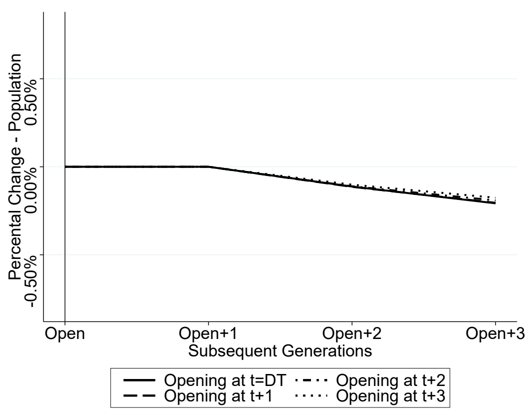
Latecomer Economy



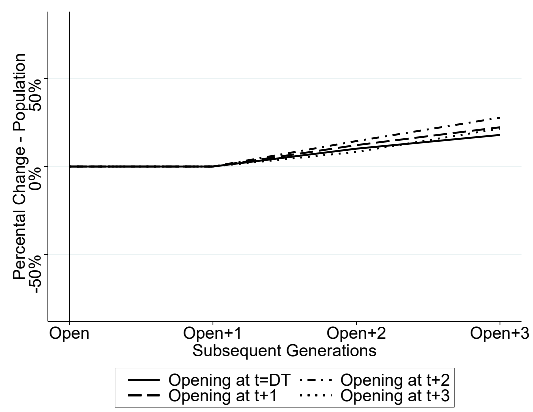
(a) Share of Educated Individuals



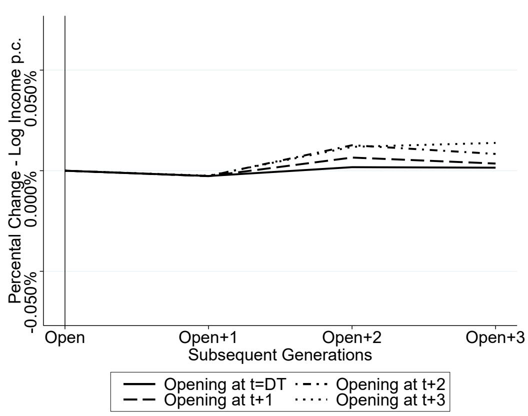
(b) Share of Educated Individuals



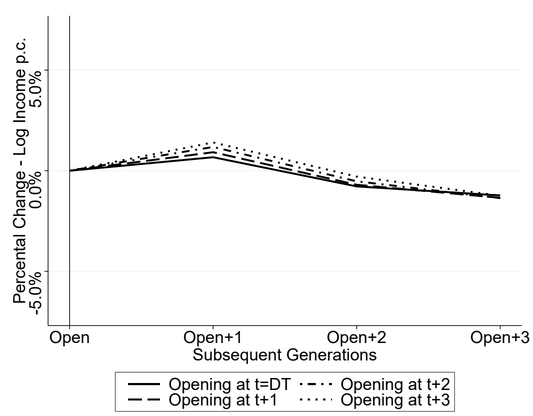
(c) Population



(d) Population



(e) Log Income p.c.



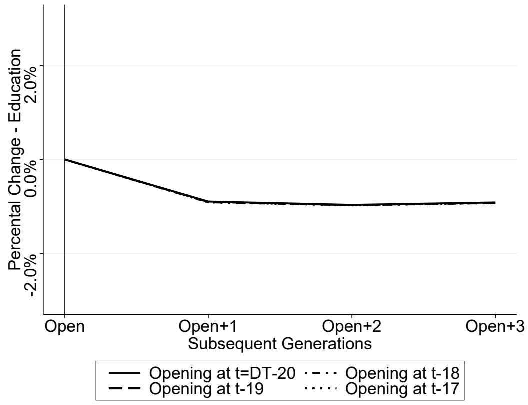
(f) Log Income p.c.

Figure A.14: *Effects of International Trade* $\xi = 0.9$ *- Opening Latecomer Economy (*t*,* $t+1$*,* $t+2$*,* $t+3$*)*

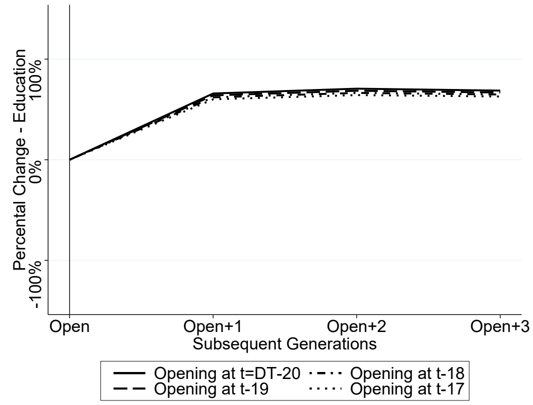
A.3.6 Placebo I: Opening Before the Demographic Transition of the Forerunner Economy ($t-20$, $t-17$)

Forerunner Economy

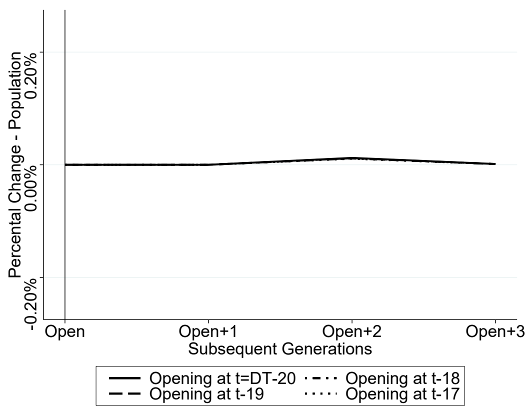
Latecomer Economy



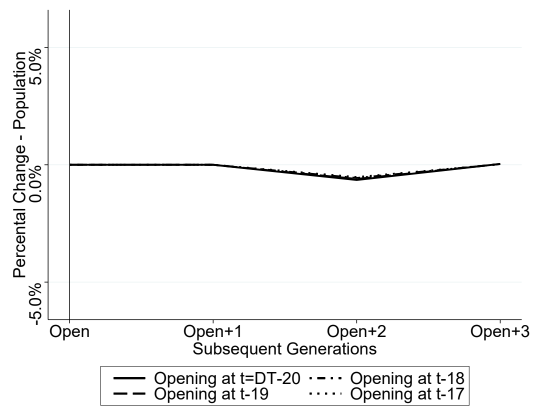
(a) Share of Educated Individuals



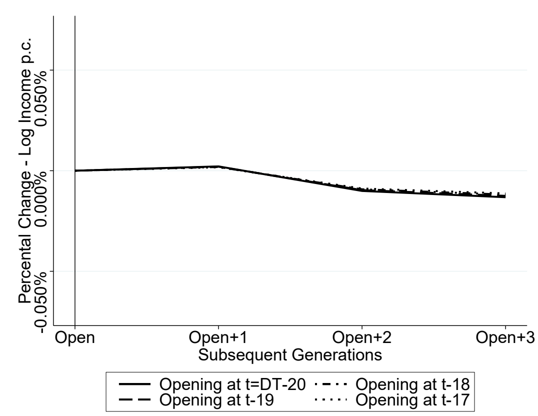
(b) Share of Educated Individuals



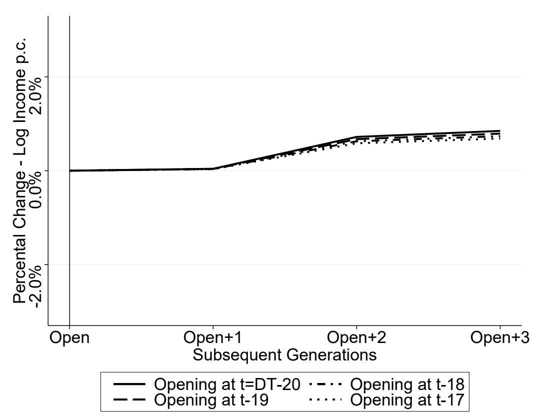
(c) Population



(d) Population



(e) Log Income p.c.

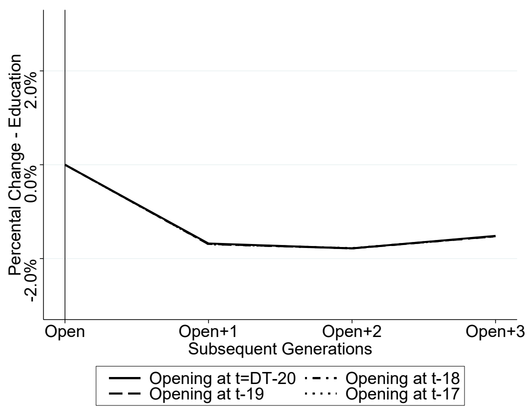


(f) Log Income p.c.

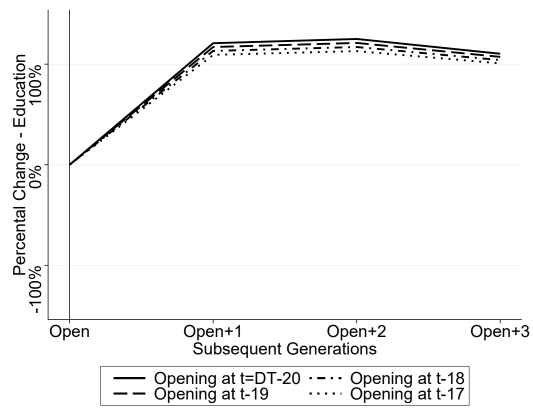
Figure A.15: *Effects of International Trade* $\xi = 0.75$ *- Opening Placebo I*

Forerunner Economy

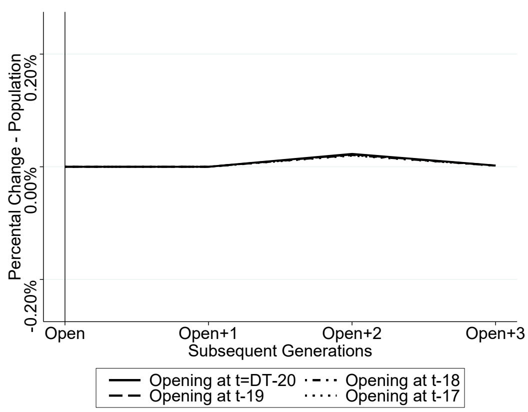
Latecomer Economy



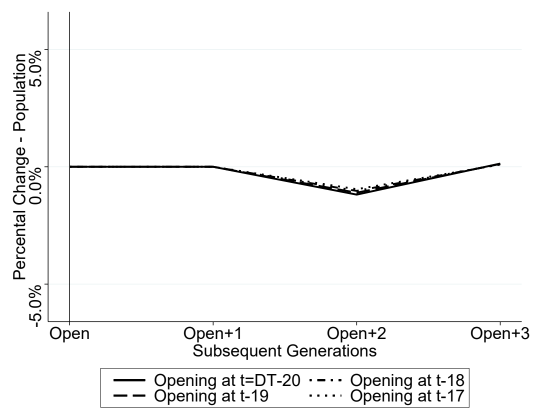
(a) Share of Educated Individuals



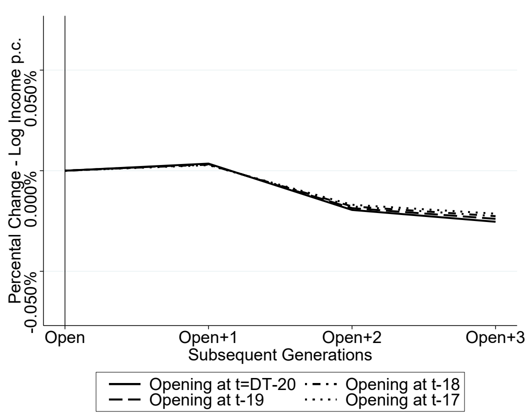
(b) Share of Educated Individuals



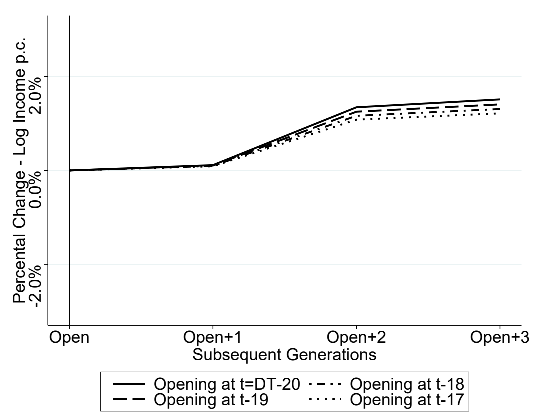
(c) Population



(d) Population



(e) Log Income p.c.

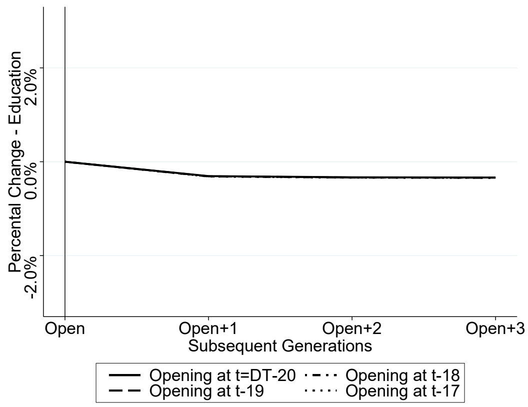


(f) Log Income p.c.

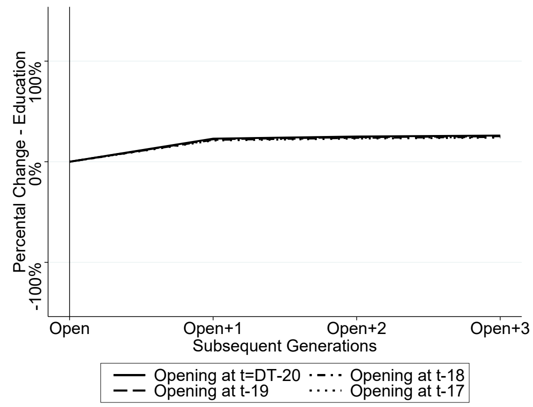
Figure A.16: *Effects of International Trade* $\xi = 0.6$ - *Opening Placebo I*

Forerunner Economy

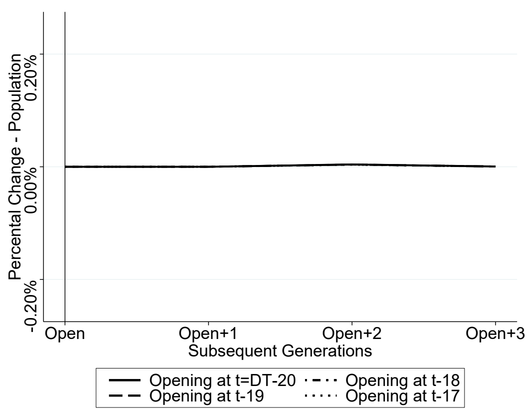
Latecomer Economy



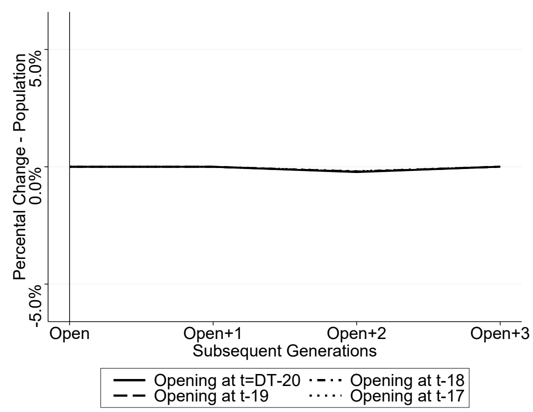
(a) Share of Educated Individuals



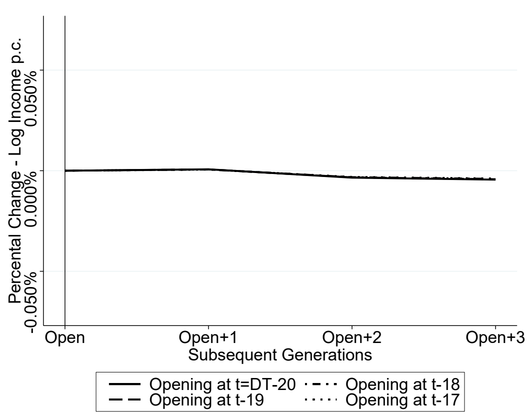
(b) Share of Educated Individuals



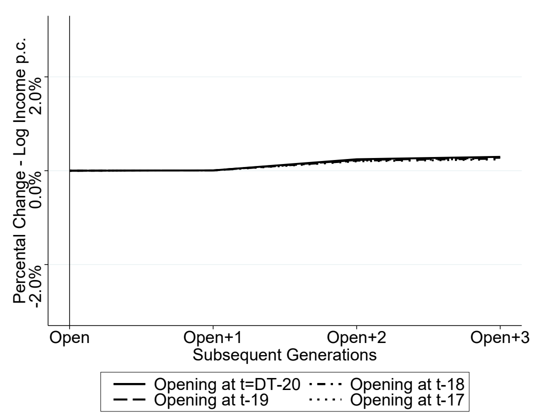
(c) Population



(d) Population



(e) Log Income p.c.



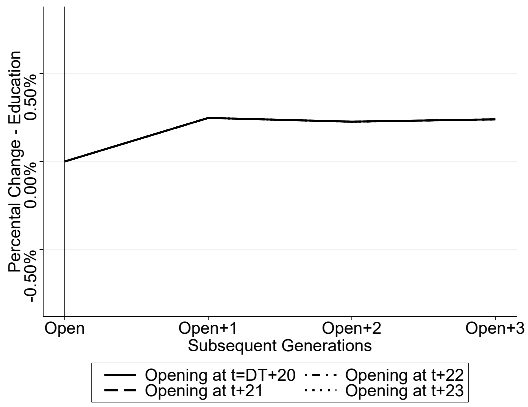
(f) Log Income p.c.

Figure A.17: *Effects of International Trade* $\xi = 0.9$ *- Opening Placebo I*

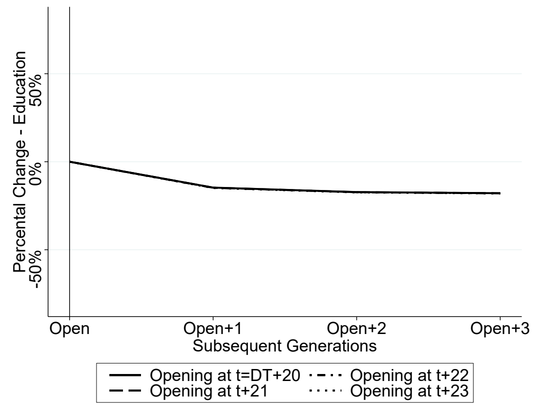
A.3.7 Placebo II: Opening After the Demographic Transition of the Latecomer Economy ($t + 20$, $t + 23$)

Forerunner Economy

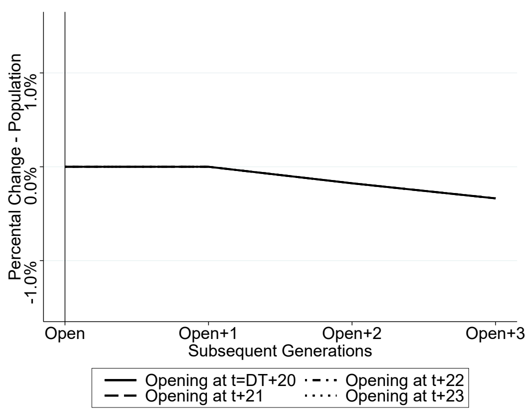
Latecomer Economy



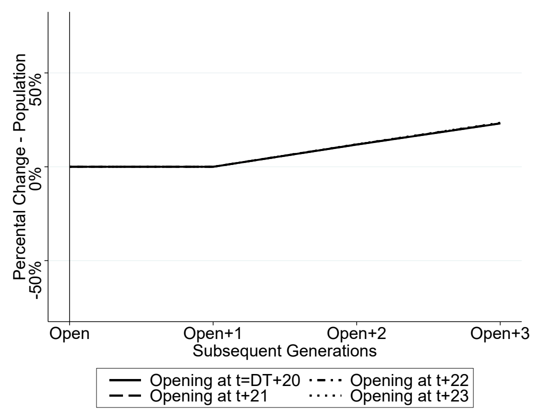
(a) Share of Educated Individuals



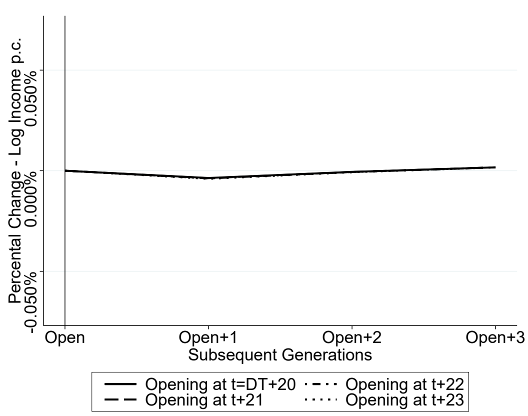
(b) Share of Educated Individuals



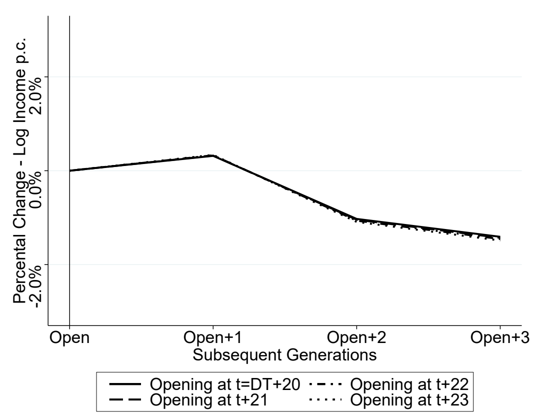
(c) Population



(d) Population



(e) Log Income p.c.

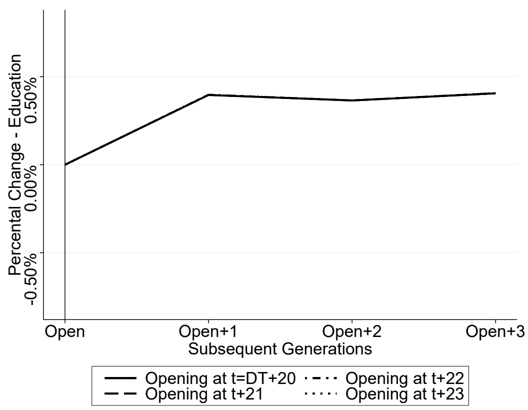


(f) Log Income p.c.

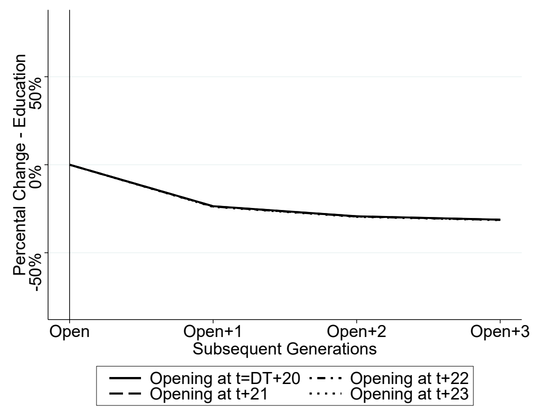
Figure A.18: *Effects of International Trade* $\xi = 0.75$ *- Opening Placebo II*

Forerunner Economy

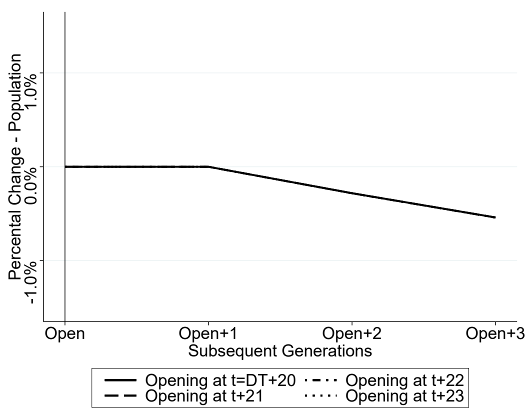
Latecomer Economy



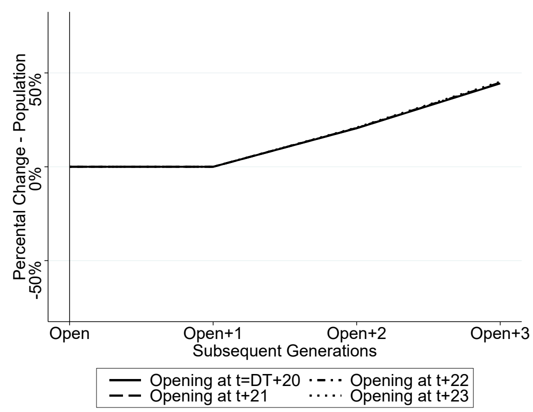
(a) Share of Educated Individuals



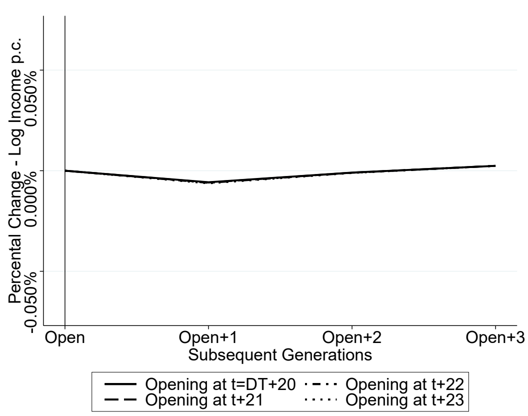
(b) Share of Educated Individuals



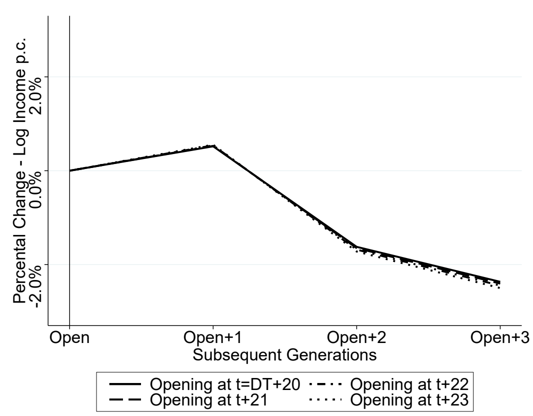
(c) Population



(d) Population



(e) Log Income p.c.

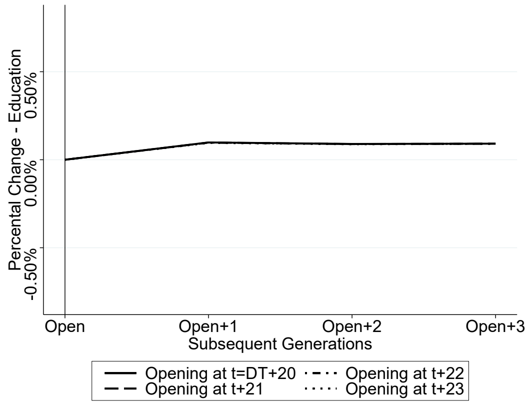


(f) Log Income p.c.

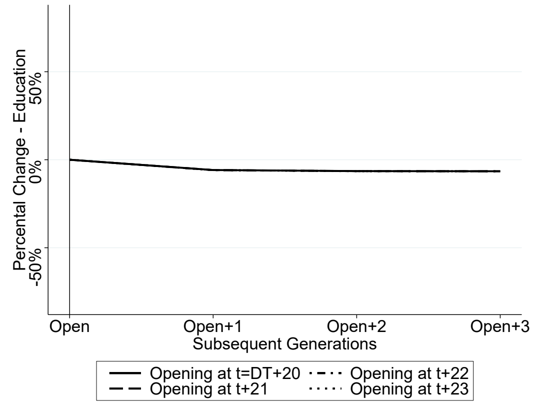
Figure A.19: *Effects of International Trade* $\xi = 0.6$ - *Opening Placebo II*

Forerunner Economy

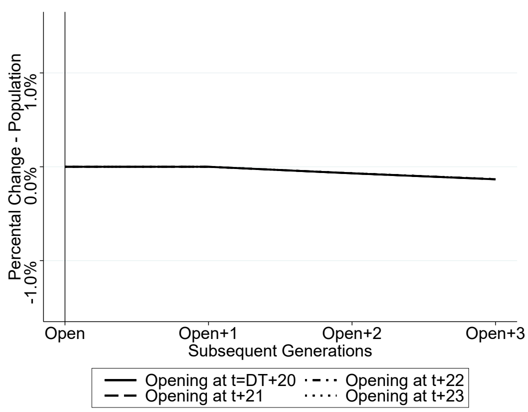
Latecomer Economy



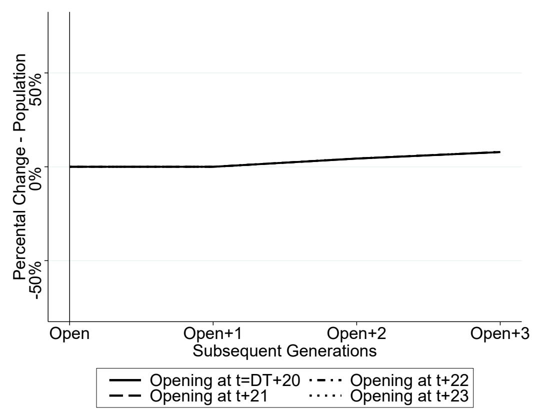
(a) Share of Educated Individuals



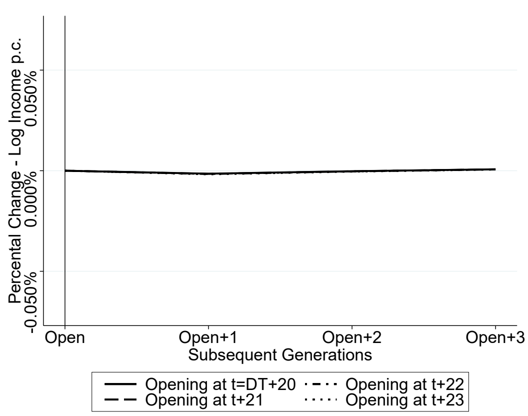
(b) Share of Educated Individuals



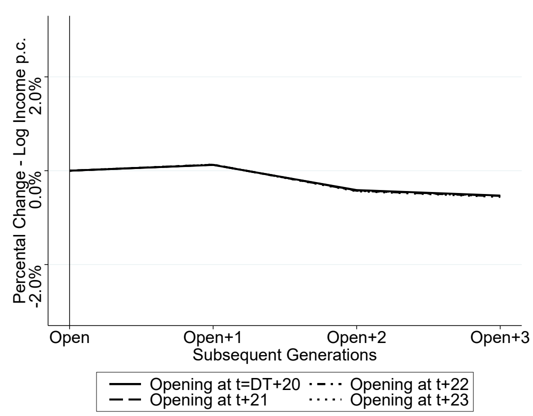
(c) Population



(d) Population



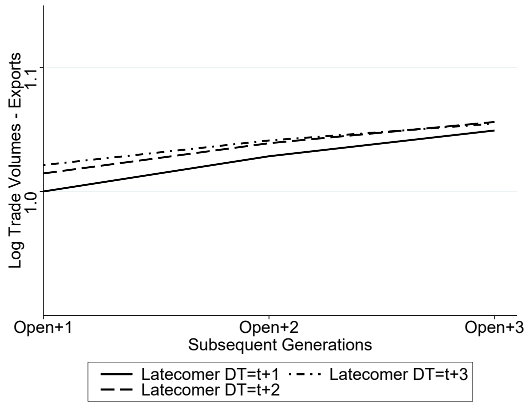
(e) Log Income p.c.



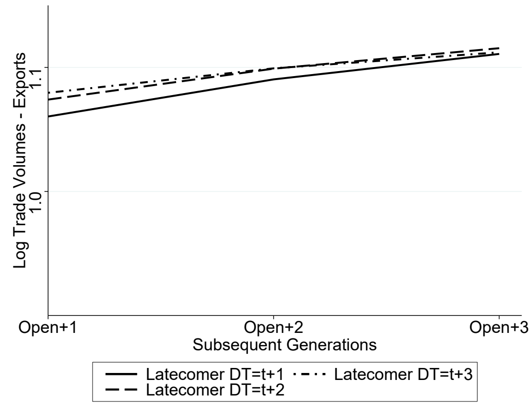
(f) Log Income p.c.

Figure A.20: *Effects of International Trade* $\xi = 0.9$ *- Opening Placebo II*

A.4 Effects on Trade Volumes

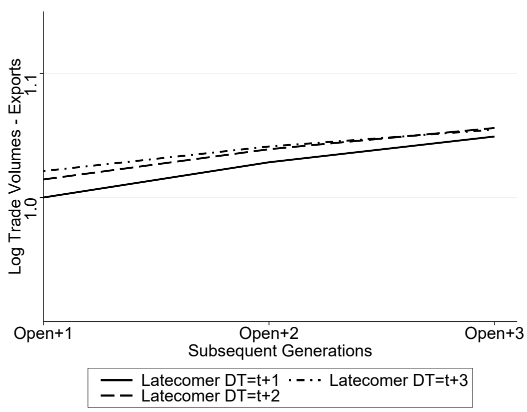


(a) Opening Before Demographic Transition

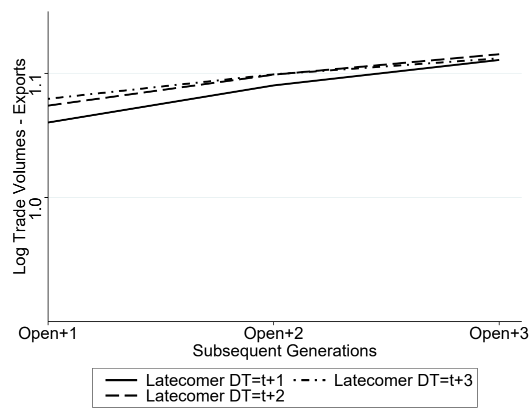


(b) Opening After Demographic Transition

Figure A.21: *Opening Pre-/Post-Demographic Transition and Trade Volumes* - $\xi = 0.6$



(a) Opening Before Demographic Transition



(b) Opening After Demographic Transition

Figure A.22: *Opening Pre-/Post-Demographic Transition and Trade Volumes* - $\xi = 0.9$

A.5 Global Long-Run Growth – Extensions

This appendix presents model extensions to account for the international diffusion of technology and health.

A.5.1 Technology Diffusion

The exchange of knowledge constitutes an alternative dimension of international interactions, besides trade. We model this aspect by focusing on technology diffusion in the form of technology externalities that favor skilled human capital. In particular, following the tradition of Nelson and Phelps (1966), technology spillovers are modeled as being facilitated by skilled human capital and being biased towards the importance of skilled human capital in production. For the case of the forerunner economy, these spillovers are specified as

$$x_{fore,t} = \begin{cases} \left[1 + \left(\lambda_{fore,t-1} + \lambda_{fore,t-1} \cdot \dfrac{\lambda_{late,t-1} - \lambda_{fore,t-1}}{\lambda_{fore,t-1} + \lambda_{late,t-1}}\right) \cdot (1 - x_{fore,t-1})\right] \cdot x_{fore,t-1} & \text{if } \lambda_{fore,t-1} < \lambda_{late,t-1} \\ \left[1 + \left(\lambda_{fore,t-1} + \lambda_{fore,t-1} \cdot \dfrac{\lambda_{late,t-1}}{\lambda_{late,t-1} + \lambda_{late,t-1}}\right) \cdot (1 - x_{fore,t-1})\right] \cdot x_{fore,t-1} & \text{if } \lambda_{fore,t-1} \geq \lambda_{late,t-1} \end{cases}$$

and the same functional form and intuition apply analogously to the latecomer economy. Consequently, technological progress in relative productivity becomes

$$\frac{x_{fore,t} - x_{fore,t-1}}{x_{fore,t-1}} = X\left(\lambda_{fore,t-1}, \lambda_{late,t-1}, x_{fore,t-1}\right) = \begin{cases} \left(\lambda_{fore,t-1} + \lambda_{fore,t-1} \cdot \dfrac{\lambda_{late,t-1} - \lambda_{fore,t-1}}{\lambda_{fore,t-1} + \lambda_{late,t-1}}\right) \cdot (1 - x_{fore,t-1}) & \text{if } \lambda_{fore,t-1} < \lambda_{late,t-1} \\ \left(\lambda_{fore,t-1} + \lambda_{fore,t-1} \cdot \dfrac{\lambda_{late,t-1}}{\lambda_{fore,t-1} + \lambda_{late,t-1}}\right) \cdot (1 - x_{fore,t-1}) & \text{if } \lambda_{fore,t-1} \geq \lambda_{late,t-1}. \end{cases} \tag{A.18}$$

This implies that technology diffusion works in two directions across the two economies. The direction of the technology spillover depends on the relation between $\lambda_{fore,t-1}$ and $\lambda_{late,t-1}$, which is ultimately determined by the baseline survival probability of adults in both economies. A lower baseline adult survival probability implies initially lower adult longevity, consequently a lower share of skilled individuals, and thus a later onset of the economic and demographic transition. With the two economies differing in adult survival, the economy with the initially higher survival rate experiences a faster demographic and technological development and is therefore the forerunner economy. The economy with lower baseline adult survival is the latecomer economy.

Technology diffusion is characterized by the adoption intensity and the adoption capacity. For the latecomer economy (i.e., $\underline{s}_{late} < \underline{s}_{fore}$), the intensity of the technology spillover is determined by the knowledge gap between the two economies in relation to the entire knowledge potential available in both economies. With the share of skilled individuals reflecting the state of knowledge embodied in an economy, the difference between $\lambda_{fore,t-1}$ and $\lambda_{late,t-1}$ constitutes the knowledge gap in the two economies, whereas the sum proxies the entire knowledge potential. This implies that the intensity of technology diffusion from the forerunner economy to the latecomer economy decreases in $\lambda_{late,t-1}$ and increases in $\lambda_{fore,t-1}$, *ceteris paribus*. The adoption capacity depends on the share of skilled individuals in the parental generation $\lambda_{late,t-1}$ that enables the adoption of advanced knowledge from abroad. Hence, the higher $\lambda_{late,t-1}$, the higher the absorptive capacity, *ceteris paribus*. Taken together, this implies that the share of skilled individuals in an economy has two effects on the diffusion of technology. An increase in $\lambda_{late,t-1}$ raises the adoption capacity of the latecomer economy, but reduces the knowledge gap and thereby the adoption intensity. The overall effect of $\lambda_{late,t-1}$ on the rate of change of relative productivity therefore crucially depends on the knowledge gap; the overall effect is larger, the larger the knowledge gap, *ceteris paribus*. Finally, technology diffusion also benefits the forerunner economy. For the forerunner economy, the diffusion of technology depends on the state of knowledge embodied in the population of the latecomer economy relative to the entire knowledge potential and on the absorptive capacity in the forerunner economy as expressed by $\lambda_{fore,t-1}$. This implies that, even though $\lambda_{fore,t-1} \geq \lambda_{late,t-1}$, knowledge diffusion from the latecomer economy enhances the relative productivity of the skilled individuals in the forerunner economy because the skilled workforce is able to generate knowledge out of knowledge generated abroad. Overall, the possibility of technology diffusion across economies fosters the positive effect of x_{it} on λ_{it} in both economies and thereby augments the feedback mechanisms in the development process. This augmentation leads to an earlier demographic and economic transition in both economies if technology diffusion is possible as compared to autarky.

A.5.2 Health Diffusion

Another dimension of international interactions relates to the diffusion of health and health technology. We model health diffusion by a spillover in medical knowledge that influences the survival probability of adults, s_{it}, and thereby adult longevity, T_{it}, in an economy. As a consequence, health diffusion facilitates the adoption of human capital and ultimately entails an earlier demographic and economic transition through its positive effect on λ_{it}. In analogy to technology diffusion, health diffusion is specified as

$$s_{late,t} = \begin{cases} \underline{s}_{late} + \rho_{late} \cdot \left(\lambda_{late,t-1} + \lambda_{late,t-1} \cdot \dfrac{T_{fore,t-1} - T_{late,t-1}}{T_{late,t-1} + T_{fore,t-1}} \right) & \text{if } T_{late,t-1} < T_{fore,t-1} \\ \underline{s}_{late} + \rho_{late} \cdot \lambda_{late,t-1} & \text{if } T_{late,t-1} \geq T_{fore,t-1}. \end{cases} \tag{A.19}$$

This specification implies that health diffusion only works in one direction, from the medically advanced (forerunner) economy to the latecomer economy. Concretely, the intensity of the health spillover is determined by the health gap between this economy and the frontier economy, the difference between $T_{late,t-1}$ and $T_{fore,t-1}$, normalized by the (average) health potential in both economies. The intensity of health diffusion, therefore, decreases in $T_{late,t-1}$ and increases in $T_{fore,t-1}$, *ceteris paribus*. The capacity to adopt medical knowledge from abroad depends on the share of skilled individuals. In contrast, the forerunner economy is not able to benefit from health spillovers.[1] In the forerunner economy, adult longevity thus develops as in autarky and the timing of the transition is not affected by health diffusion.

[1] Conceptually, health diffusion could also be modeled symmetrically, along the lines of technology diffusion. However, it appears more consistent with historical evidence, e.g., related to the global epidemiological transition, to view health diffusion as an asymmetric process that occurs from forerunner to latecomer economies.

A.5.3 Global Dynamics – The Impact of Technology Diffusion

In the following, we consider the implications of technology diffusion on the long-run development dynamics. For expositional clarity, we consider this dimension separately and independently from trade.

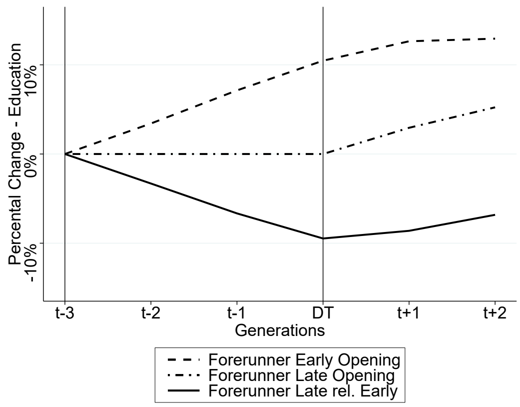
Figure A.23 displays the effects of technology diffusion on the global development dynamics. The figure is structured in the same way, distinguishing between the effects on the forerunner and latecomer economy, and displaying the consequences of an early and a late opening scenario to technology diffusion relative to autarky and relative to each other.

Figures A.23(a) and A.23(b) document that, under both opening scenarios, access to technologies developed abroad and the corresponding international diffusion of technologies have an unambiguously positive effect on the evolution of human capital, in both economies. The reason is that technology diffusion increases the relative importance of skilled human capital in the skill-intensive production sector and thereby raises the demand for skilled human capital. An earlier opening implies that the positive effect on the share of skilled individuals sets in earlier, and thus leads to a positive education differential relative to autarky.

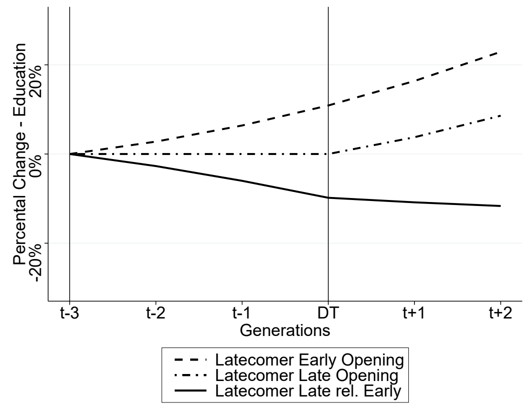
The increase in the share of skilled individuals is accompanied by slower population growth in both economies as a consequence of differential fertility between skilled and unskilled individuals. In the forerunner economy, the differential effect is reinforced by the increase in time devoted to child rearing at the onset of the demographic transition, leading to a further decline in population growth relative to autarky. In the latecomer economy, the differential effect is counteracted by a positive income effect on fertility as a consequence of the delayed demographic transition. If this effect is sufficiently strong, the consequence is that, with some delay, the population even increases faster in comparison to autarky or a late opening to technology diffusion, as depicted in Figure A.23(d).

These counteracting forces determine the effects of technology diffusion on income. In the forerunner economy, technology diffusion entails higher income per capita under both opening scenarios. Here, in the early opening scenario, the demographic development is already sufficiently advanced and the production sectors are already productive enough to compensate for an initial decline in the relative price. The same holds for the late opening scenario. Moreover, the diffusion of technology leads to technological progress in both sectors and translates into dynamic gains. The latecomer economy, in contrast, experiences a relative price effect that lowers income per capita relative to autarky, under both opening scenarios. The skill-intensive sector is not productive enough to compensate for the reduction in the relative price, with the consequence that income per capita declines despite the import of technology. The price effect is similar but smaller in the late opening scenario. As consequence, income per capita is lower in the early opening scenario relative to the late opening scenario. It is important to keep in mind that the evolution of the latecomer economy is nevertheless accelerated through technology diffusion by its effect on human capital acquisition and the resulting acceleration in demographic development compared to the development in isolation. This is indicated by the earlier increase of income per capita relative to autarky and to the late opening scenario. Taken together, however, the findings reveal the surprising insight that international technology diffusion does not have unambiguously positive effects on development and interacts with the level of demographic development.

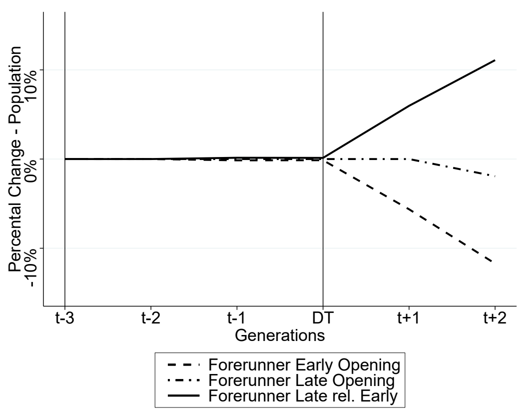
Forerunner Economy | Latecomer Economy



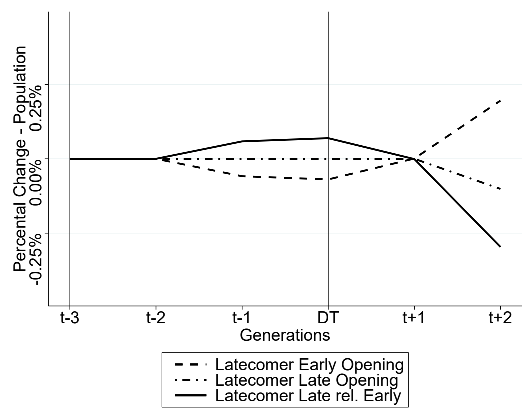
(a) Share of Educated Individuals



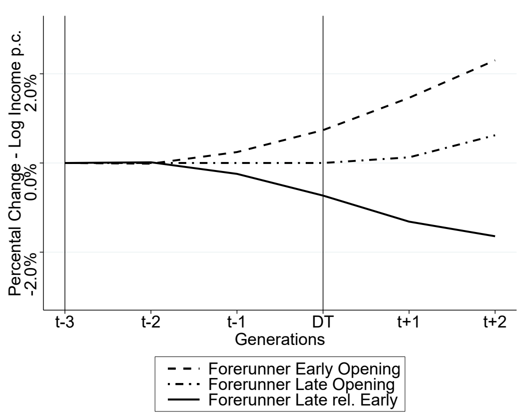
(b) Share of Educated Individuals



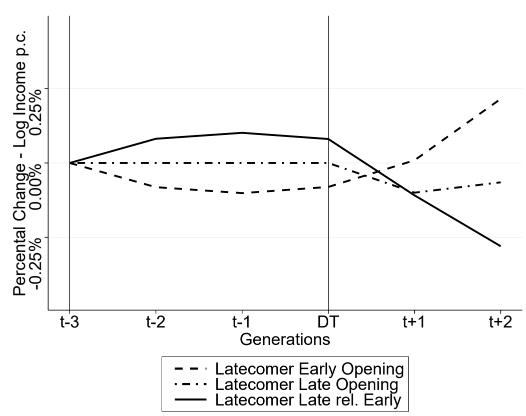
(c) Population



(d) Population



(e) Log Income p.c.



(f) Log Income p.c.

Figure A.23: *Comparative Dynamic Effects of Technology Diffusion: Early vs. Late Opening*

A.5.4 Global Dynamics – The Impact of Health Diffusion

We analyze the implications of health diffusion on the long-run development dynamics by following the same procedure as in Section A.5.3.

Figure A.24 presents the results for the effects of health diffusion on the global development dynamics. Given our assumptions about the uni-directional diffusion of health from the world frontier, health spillovers are limited to spillovers from the forerunner economy to the latecomer economy, leaving the dynamics in the forerunner economy unaffected as shown in the left column of Figure A.24.

The panels of the right column of Figure A.24 illustrate the consequences of health diffusion for the development on the latecomer economy. In particular, the health spillover has a positive effect on adult longevity, and hence on human capital acquisition. In the early opening scenario, the health spillover entails a higher share of skilled workers than under autarky; this effect is persistent and accumulates over time, see Figure A.24(b). The same is true in the late opening scenario, which accelerates the accumulation of human capital compared to the autarky case, but the delay implies that the development is persistently delayed compared to the early opening scenario. The health spillover also has a positive effect on population growth as consequence due to the associated income effect. Hence, population growth is faster under the health spillover in both scenarios than under autarky, and the population effect is persistent and more pronounced in the early opening scenario. The increase in the share of skilled individuals is moderate, such that the faster accumulation of education due to health spillovers is accompanied by an increase in the relative price of basic goods in comparison to autarky. As consequence, income per capita is relatively larger than under autarky in both opening scenarios. Overall, the early opening scenario exhibits the more pronounced effects on development. Taken together, these results imply that health diffusion is beneficial for the development of the latecomer economy with respect to education and income. However, the effect on population dynamics moderates the consequences for income, suggesting that also in the case of health diffusion demographic development matters for the quantitative consequences for economic development.

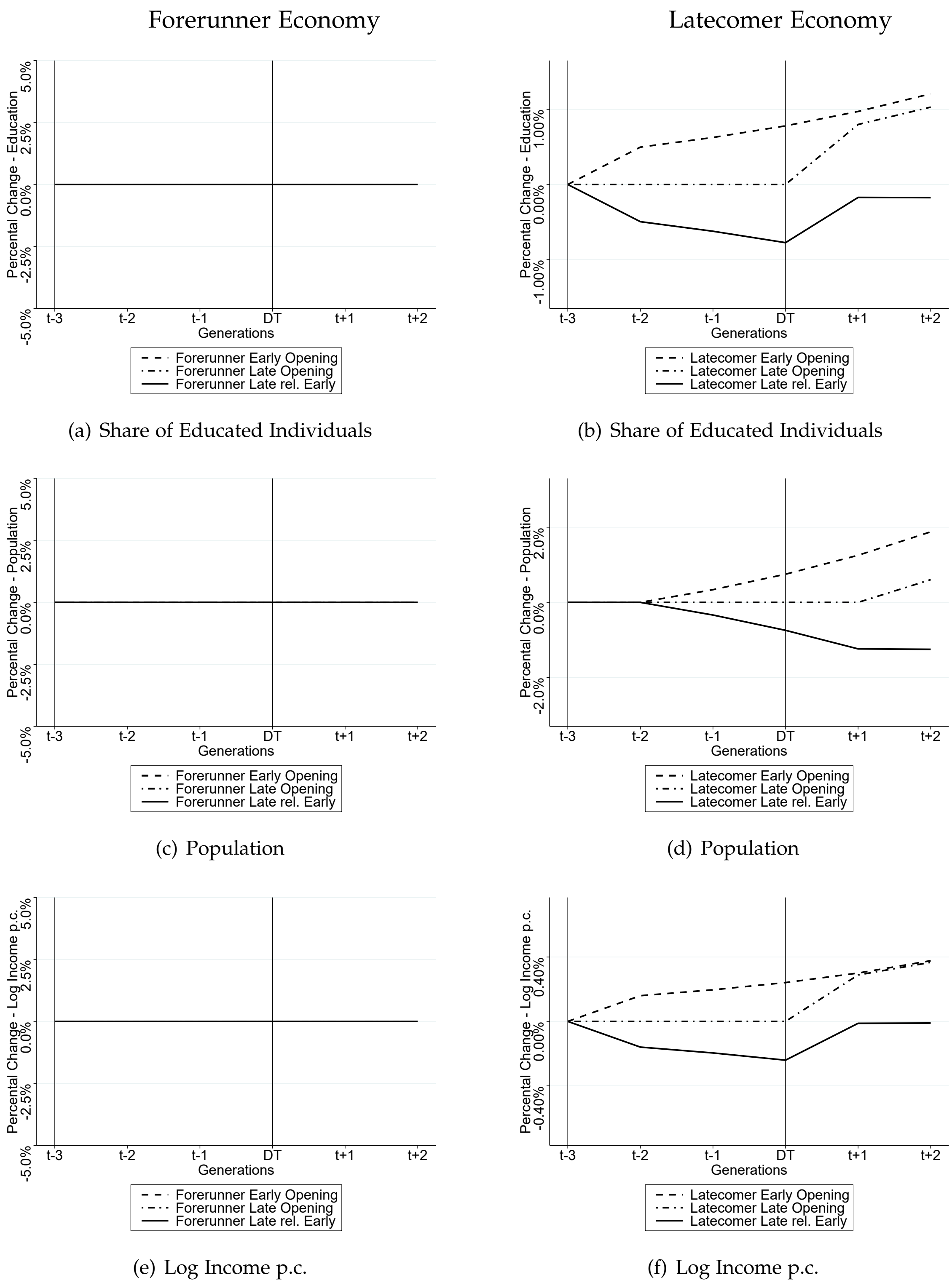


Figure A.24: *Comparative Dynamic Effects of the Health Diffusion: Early vs. Late Opening*

Appendix B

Appendix to Chapter 2

B.1 Data

B.1.1 Summary Statistics

Table B.1: *Summary Statistics*

Variable	Mean	SD	Min	Max	Median
School Enrollment Rate 1849	0.800	0.117	0.334	0.989	0.827
Share Protestants in Total Population 1816	0.613	0.394	0.000	1.000	0.786
Share Jews in Total Population 1816	0.012	0.019	0.000	0.098	0.005
Share of Population living in Cities 1849	0.248	0.182	0.000	1.000	0.206
Medium and Large Towns 1816	0.461	0.499	0.000	1.000	0.000
Share Population born in County 1880	0.780	0.098	0.422	0.948	0.798
Net International Migration (per 1000 inhabitants) 1880	-1.711	3.726	-32.219	2.374	-0.529
Landownership Inequality 1849	0.019	0.020	0.000	0.110	0.012
Western Part	0.257	0.438	0.000	1.000	0.000
Polish Parts	0.514	0.501	0.000	1.000	1.000
Latitude (in rad)	0.910	0.024	0.859	0.972	0.905
Longitude (in rad)	0.243	0.083	0.105	0.394	0.259
Year of Annexation (divided by 1000)	1.732	0.081	1.608	1.816	1.742
Prussia	0.176	0.382	0.000	1.000	0.000
Posnania	0.080	0.272	0.000	1.000	0.000
Brandenburg	0.102	0.303	0.000	1.000	0.000
Pomerania	0.080	0.272	0.000	1.000	0.000
Saxony (Pr.)	0.127	0.333	0.000	1.000	0.000
Silesia	0.176	0.382	0.000	1.000	0.000
Westphalia	0.108	0.311	0.000	1.000	0.000
Rhineland	0.149	0.356	0.000	1.000	0.000
Prussia x Year of Annexation	0.297	0.643	0.000	1.793	0.000
Posnania x Year of Annexation	0.144	0.487	0.000	1.793	0.000
Brandenburg x Year of Annexation	0.169	0.501	0.000	1.816	0.000
Pomerania x Year of Annexation	0.136	0.460	0.000	1.816	0.000
Saxony (Pr.) x Year of Annexation	0.222	0.583	0.000	1.816	0.000
Silesia x Year of Annexation	0.308	0.666	0.000	1.816	0.000
Westphalia x Year of Annexation	0.190	0.546	0.000	1.816	0.000
Rhineland x Year of Annexation	0.267	0.641	0.000	1.816	0.000
Share of All Factory Workers in Employed Labor Force 1849	0.028	0.032	0.003	0.353	0.018
Share of All Manufacturing Workers in Employed Labor Force 1882	0.268	0.135	0.061	0.718	0.233
Share of Women in Industry in Total Population 1867	0.007	0.010	0.000	0.063	0.003
Population Density 1867 (1000 people per km^2)	0.199	1.038	0.025	15.457	0.063
Young Population Share 1816	0.361	0.028	0.258	0.456	0.362
Young Population Share 1849	0.351	0.028	0.228	0.414	0.351
Young Population Share 1867	0.455	0.032	0.327	0.522	0.458
Young Population Share 1882	0.461	0.032	0.367	0.527	0.460

Data sources: Becker *et al.* (2011), Becker *et al.* (2013), Becker *et al.* (2014), Edwards (2018), and Galloway (2007).

B.1.2 Pairwise Correlations

Table B.2: *Correlations Among Young Dependency Ratios and Industrialization Measures*

Variables	Young Dep. Ratio 1816	Young Dep. Ratio 1849	Young Dep. Ratio 1882	All Factories	Other Factories	Metal Factories	Textile Factories	All Manufact.	Other Manufact.	Metal Manufact.	Textile Manufact.
Young Dependency Ratio 1816	1.000										
Young Dependency Ratio 1849	0.649	1.000									
	(0.000)										
Young Dependency Ratio 1882	0.564	0.832	1.000								
	(0.000)	(0.000)									
All Factories	-0.200	-0.135	-0.097	1.000							
	(0.000)	(0.015)	(0.082)								
Other Factories	-0.228	-0.208	-0.209	0.597	1.000						
	(0.000)	(0.000)	(0.000)	(0.000)							
Metal Factories	-0.032	0.043	0.102	0.778	0.158	1.000					
	(0.564)	(0.443)	(0.066)	(0.000)	(0.004)						
Textile Factories	-0.171	-0.159	-0.162	0.471	0.032	0.072	1.000				
	(0.002)	(0.004)	(0.003)	(0.000)	(0.562)	(0.194)					
All Manufacturing	-0.339	-0.375	-0.328	0.586	0.301	0.398	0.430	1.000			
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)				
Other Manufacturing	-0.418	-0.530	-0.535	0.480	0.473	0.214	0.271	0.727	1.000		
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)			
Metal Manufacturing	-0.085	-0.019	0.062	0.507	0.204	0.558	0.083	0.687	0.315	1.000	
	(0.129)	(0.735)	(0.270)	(0.000)	(0.000)	(0.000)	(0.138)	(0.000)	(0.000)		
Textile Manufacturing	-0.298	-0.370	-0.365	0.276	0.074	0.026	0.549	0.706	0.446	0.040	1.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.182)	(0.637)	(0.000)	(0.000)	(0.000)	(0.479)	

Data sources: Becker *et al.* (2011), Becker *et al.* (2014), and Galloway (2007).

B.1.3 Fertility Transition

Table B.3: *Onset of Fertility Decline - Prussian Districts*

				Marital Fertility Rate		
	Code	District	Province	10% Decline	Threshold 0.6	Threshold 0.5
1	AAC	Aachen	Rhineland	1904	1917	1923
2	ARN	Arnsberg	Westphalia	1903	1912	1918
3	BRE	Breslau	Silesia	1901	1907	1915
4	BRO	Bromberg	Posnania	1911	1919	1923
5	DAN	Danzig	Prussia	1909	1917	1922
6	DUS	Düsseldorf	Rhineland	1895	1909	1914
7	ERF	Erfurt	Saxony (Pr.)	1891	1902	1911
8	FRA	Frankfurt	Brandenburg	1896	1899	1908
9	GUM	Gumbinnen	Prussia	1907	1916	1923
10	KOB	Koblenz	Rhineland	1902	1912	1920
	KOL	Köln	Rhineland	1893	1908	1914
11	KON	Königsberg	Prussia	1907	1916	1923
12	KOS	Köslin	Pomerania	1905	1915	1921
13	LIE	Liegnitz	Silesia	1899	1899	1911
14	MAG	Magdeburg	Saxony (Pr.)	1893	1893	1904
15	MAR	Marienwerder	Prussia	1911	1918	1922
16	MER	Merseburg	Saxony (Pr.)	1897	1903	1910
17	MIN	Minden	Westphalia	1902	1912	1920
18	MUN	Münster	Westphalia	1911	1921	1926
19	OPP	Oppeln	Silesia	1912	1923	1929
20	POS	Posen	Posnania	1911	1918	1923
21	POT	Potsdam	Brandenburg	1891	1892	1900
22	STE	Stettin	Pomerania	1897	1903	1910
23	STR	Stralsund	Pomerania	1897	1903	1910
24	TRI	Trier	Rhineland	1907	1925	1930

Data sources: Knodel (1974).

B.1.4 Mortality Transition

Table B.4: *Percentage Change of Expected Years to Live – 1882-1816*

Variable	N	Mean	SD	Min	Max	Median
e (0 - 15)	24	-1.551	3.788	-8.597	4.900	-0.968
e (15 - 30)	24	1.522	1.044	-0.587	3.300	1.347
e (30 - 45)	24	1.238	1.010	-1.058	2.708	1.475
e (45 - 60)	24	13.08	6.334	2.990	33.88	13.07
e (15 - 45)	24	2.344	1.610	-1.158	5.064	2.156
e (15 - 60)	24	3.880	2.429	-0.120	9.040	3.210

Data sources: Mützell (1825), Königliches Statistisches Bureau (1885), Becker *et al.* (2014), and Königliches Statistisches Bureau (1884).

Table B.5: *Percentage Change of the Population Share over Age 60*

Variable	N	Mean	SD	Min	Max	Median
Period 1867 - 1816	323	9.337	21.37	-52.29	102.5	7.957
Period 1871 - 1816	323	12.58	22.78	-57.11	107.7	11.39
Period 1875 - 1816	323	16.81	24.42	-64.26	108.8	16.37

Data sources: Becker *et al.* (2014) and Galloway (2007).

B.2 Additional Empirical Results

B.2.1 Falsification Exercise

Table B.6: *Falsification Exercise*

Dependent Variable:	Share of Proto-Industrial Workers in Total Population 1819		
	(1)	(2)	(3)
Young Dependency Ratio 1816	0.001	0.001	0.002
	(0.001)	(0.001)	(0.001)
Observations	323	323	323
Education and Geography	-	✓	✓
Pre-Industrial Development	-	-	✓
Adjusted R^2	-0.001	0.018	0.061

Notes: This table presents ordinary least squares regressions relating the young dependency ratio in 1816 to the proto-industrial employment share in 1819. The dependent variable is number of proto-industrial workers divided by the total population. All regressions include a constant and control for educational and geographical characteristics as well as for pre-industrial development where indicated. Educational and geographic control variables are the years of schooling 1849, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011) and Becker *et al.* (2014). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** $p<0.01$,** $p<0.05$, * $p<0.1$.

B.2.2 Reduced-Form Estimates

Table B.7: *Reduced-Form Estimates - 1849*

Dependent Variable:	Share of Factory Workers in Total Population 1849			
	(1) All Factories	(2) All except Metal and Textile	(3) Metal Factories	(4) Textile Factories
Young Dependency Ratio 1816	-0.048***	-0.026***	-0.005	-0.017***
	(0.012)	(0.005)	(0.008)	(0.004)
Observations	323	323	323	323
Education and Geography	-	-	-	-
Pre-Industrial Development	-	-	-	-
Adjusted R^2	0.037	0.049	-0.002	0.026
Young Dependency Ratio 1816	-0.040***	-0.018***	-0.004	-0.018***
	(0.013)	(0.005)	(0.009)	(0.005)
Observations	323	323	323	323
Education and Geography	✓	✓	✓	✓
Pre-Industrial Development	-	-	-	-
Adjusted R^2	0.115	0.129	0.010	0.048
Young Dependency Ratio 1816	-0.028***	-0.011***	-0.002	-0.014***
	(0.010)	(0.004)	(0.008)	(0.004)
Observations	323	323	323	323
Education and Geography	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓
Adjusted R^2	0.265	0.202	0.120	0.124

Notes: This table presents the reduced-form regressions relating the young dependency ratio in 1816 to the factory employment shares in 1849. The dependent variable is employment in (sector-specific) factories divided by the total population. All regressions include a constant and control for educational and geographical characteristics as well as for pre-industrial development where indicated. Educational and geographic control variables are the years of schooling 1849, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011) and Becker *et al.* (2014). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** $p<0.01$,** $p<0.05$, * $p<0.1$.

Table B.8: *Reduced-Form Estimates - 1882*

Dependent Variable:	Share of Manufacturing Workers in Total Population 1882			
	(1) All Manufacturing	(2) All except Metal and Textile	(3) Metal Manufacturing	(4) Textile Manufacturing
Young Dependency Ratio 1816	-0.274***	-0.103***	-0.039*	-0.132***
	(0.045)	(0.017)	(0.024)	(0.022)
Observations	323	323	323	323
Education and Geography	-	-	-	-
Pre-Industrial Development	-	-	-	-
Industrial Progress	-	-	-	-
Adjusted R^2	0.112	0.172	0.004	0.086
Young Dependency Ratio 1816	-0.132***	-0.045***	0.012	-0.099***
	(0.037)	(0.012)	(0.029)	(0.022)
Observations	323	323	323	323
Education and Geography	✓	✓	✓	✓
Pre-Industrial Development	-	-	-	-
Industrial Progress	-	-	-	-
Adjusted R^2	0.435	0.550	0.125	0.205
Young Dependency Ratio 1816	-0.115***	-0.030***	-0.000	-0.084***
	(0.030)	(0.010)	(0.026)	(0.019)
Observations	323	323	323	323
Education and Geography	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓
Industrial Progress	-	-	-	-
Adjusted R^2	0.674	0.652	0.457	0.409
Young Dependency Ratio 1816	-0.095***	-0.026***	0.000	-0.063***
	(0.028)	(0.010)	(0.023)	(0.017)
Observations	323	323	323	323
Education and Geography	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓
Industrial Progress	✓	✓	✓	✓
Adjusted R^2	0.710	0.672	0.563	0.537

Notes: This table presents the reduced-form regressions relating the young dependency ratio in 1816 to the manufacturing employment shares in 1882. The dependent variable is employment in (sector-specific) manufacturing divided by the total population. All regressions include a constant and control for educational and geographical characteristics, for pre-industrial development as well as for the (sector-specific) industrial level reached in 1849 where indicated. Educational and geographic control variables are the years of schooling 1849, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011) and Becker *et al.* (2014). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

B.2.3 Robustness

The First Phase of Industrialization

Table B.9: *2SLS Estimates - 1849 - Robustness - Total Industry*

Dependent Variable:	Share of All Factory Workers in Total Population 1849														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Young Dependency Ratio 1849	-0.062***	-0.054**	-0.054**	-0.041**	-0.054***	-0.055***	-0.073***	-0.057***	-0.068**	-0.057***	-0.073***	-0.085**	-0.056**	-0.005	-0.084
	(0.021)	(0.023)	(0.022)	(0.017)	(0.021)	(0.021)	(0.025)	(0.022)	(0.027)	(0.021)	(0.022)	(0.041)	(0.025)	(0.039)	(0.055)
School Enrollment Rate 1849	0.021***														
	(0.005)														
Share Protestants in Total Population 1816		0.001													
		(0.003)													
Share Jews in Total Population 1816			-0.026												
			(0.035)												
Share of Population living in Cities 1849				0.028											
				(0.020)											
Medium and Large Towns 1816					0.002										
					(0.002)										
Landownership Inequality 1849						-0.045									
						(0.028)									
Share Population born in County 1880							0.030***								
							(0.011)								
Net International Migration 1880								-0.000							
								(0.000)							
Western Part									0.005						
									(0.004)						
Polish Parts										-0.007***					
										(0.002)					
Latitude (in rad)											-0.026				
											(0.031)				
Longitude (in rad)											-0.047***				
											(0.017)				
Year of Annexation												0.014			
												(0.019)			
Observations	323	323	323	323	323	323	323	323	323	323	323	323	323	161	159
Education and Geography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Province Effects	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Effective F-Statistic	63.01	59.31	52.11	50.93	53.92	54.15	46.20	52.78	54.25	53.61	60.66	52.75	22.87	38.80	6.97
AR p-value	0.002	0.019	0.010	0.014	0.007	0.007	0.002	0.007	0.009	0.006	0.001	0.038	0.027	0.906	0.083
AR 95% CI Lower Bound	-0.108	-0.103	-0.100	-0.079	-0.097	-0.099	-0.128	-0.102	-0.125	-0.101	-0.120	-0.171	-0.134	-0.089	-0.274
AR 95% CI Upper Bound	-0.022	-0.011	-0.014	-0.009	-0.015	-0.016	-0.026	-0.016	-0.018	-0.017	-0.031	-0.005	-0.008	0.074	0.009
Moran's I									-0.002	-0.003	-0.004	-0.004			
p-value of Moran Test									0.057	0.825	0.408	0.264			

Notes: This table reports instrumental variable estimates, with young dependency ratio 1849 instrumented by young dependency ratio 1816. The dependent variable is total employment in factories divided by the total population. All regressions include a constant and control for educational and geographical characteristics, for pre-industrial development as well as for province fixed effects where indicated. Educational and geographic control variables are the years of schooling 1849, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011), Becker *et al.* (2013), Becker *et al.* (2014), Edwards (2018), and Galloway (2007). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

Table B.10: *2SLS Estimates - 1849 - Robustness - Industries Outside Metal and Textile*

Dependent Variable:	Share of Factory Workers Outside Metal and Textile in Total Population 1849														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Young Dependency Ratio 1849	-0.029***	-0.014*	-0.024***	-0.021***	-0.024***	-0.023***	-0.028***	-0.024***	-0.020**	-0.023***	-0.024***	-0.012	-0.023**	0.036	-0.045*
	(0.008)	(0.007)	(0.008)	(0.008)	(0.008)	(0.007)	(0.010)	(0.008)	(0.008)	(0.007)	(0.008)	(0.009)	(0.011)	(0.026)	(0.024)
School Enrollment Rate 1849	0.011***														
	(0.003)														
Share Protestants in Total Population 1816		0.004***													
		(0.001)													
Share Jews in Total Population 1816			0.009												
			(0.020)												
Share of Population living in Cities 1849				0.004											
				(0.007)											
Medium and Large Towns 1816					-0.001										
					(0.001)										
Landownership Inequality 1849						-0.007									
						(0.013)									
Share Population born in County 1880							0.009								
							(0.007)								
Net International Migration 1880								-0.000							
								(0.000)							
Western Part									-0.001						
									(0.001)						
Polish Parts										-0.002***					
										(0.001)					
Latitude (in rad)											0.009				
											(0.014)				
Longitude (in rad)											-0.009**				
											(0.004)				
Year of Annexation												0.001			
												(0.008)			
Observations	323	323	323	323	323	323	323	323	323	323	323	323	323	161	159
Education and Geography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Province Effects	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Effective F-Statistic	63.01	59.31	52.11	50.93	53.92	54.15	46.20	52.78	54.25	53.61	60.66	52.75	22.87	38.80	6.97
AR p-value	0.000	0.055	0.002	0.006	0.002	0.002	0.003	0.002	0.013	0.002	0.002	0.218	0.031	0.165	0.046
AR 95% CI Lower Bound	-0.046	-0.029	-0.040	-0.037	-0.041	-0.038	-0.049	-0.040	-0.037	-0.039	-0.040	-0.030	-0.056	-0.015	-0.120
AR 95% CI Upper Bound	-0.014	0.000	-0.009	-0.007	-0.010	-0.009	-0.010	-0.009	-0.004	-0.009	-0.010	0.007	-0.003	0.094	-0.001
Moran's I									-0.001	-0.002	-0.002	-0.004			
p-value of Moran Test									0.002	0.379	0.301	0.317			

Notes: This table reports instrumental variable estimates, with young dependency ratio 1849 instrumented by young dependency ratio 1816. The dependent variable is employment in factories outside metal and textile divided by the total population. All regressions include a constant and control for educational and geographical characteristics, for pre-industrial development as well as for province fixed effects where indicated. Educational and geographic control variables are the years of schooling 1849, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011), Becker *et al.* (2013), Becker *et al.* (2014), Edwards (2018), and Galloway (2007). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

Table B.11: *2SLS Estimates - 1849 - Robustness - Metal Industry*

Dependent Variable:	Share of Metal Factory Workers in Total Population 1849														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Young Dependency Ratio 1849	-0.008	-0.007	-0.004	0.007	-0.002	-0.003	-0.007	-0.004	-0.018	-0.004	-0.014	-0.042	-0.004	-0.009	0.037
	(0.016)	(0.018)	(0.016)	(0.011)	(0.015)	(0.016)	(0.018)	(0.017)	(0.022)	(0.016)	(0.017)	(0.036)	(0.016)	(0.022)	(0.031)
School Enrollment Rate 1849	0.006**														
	(0.003)														
Share Protestants in Total Population 1816		-0.001													
		(0.002)													
Share Jews in Total Population 1816			0.002												
			(0.022)												
Share of Population living in Cities 1849				0.020											
				(0.017)											
Medium and Large Towns 1816					0.001										
					(0.001)										
Landownership Inequality 1849						-0.023									
						(0.017)									
Share Population born in County 1880							0.005								
							(0.006)								
Net International Migration 1880								-0.000							
								(0.000)							
Western Part									0.006*						
									(0.003)						
Polish Parts										-0.003**					
										(0.002)					
Latitude (in rad)											-0.024				
											(0.021)				
Longitude (in rad)											-0.024*				
											(0.014)				
Year of Annexation												0.011			
												(0.013)			
Observations	323	323	323	323	323	323	323	323	323	323	323	323	323	161	159
Education and Geography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Province Effects	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Effective F-Statistic	63.01	59.31	52.11	50.93	53.92	54.15	46.20	52.78	54.25	53.61	60.66	52.75	22.87	38.80	6.97
AR p-value	0.605	0.702	0.805	0.557	0.874	0.829	0.715	0.794	0.417	0.798	0.397	0.232	0.803	0.668	0.238
AR 95% CI Lower Bound	-0.043	-0.045	-0.038	-0.016	-0.035	-0.037	-0.045	-0.039	-0.065	-0.037	-0.050	-0.117	-0.047	-0.059	-0.030
AR 95% CI Upper Bound	0.022	0.028	0.028	0.028	0.026	0.027	0.027	0.026	0.024	0.027	0.017	0.027	0.028	0.033	0.120
Moran's I									-0.004	-0.003	-0.004	-0.004			
p-value of Moran Test									0.197	0.575	0.197	0.190			

Notes: This table reports instrumental variable estimates, with young dependency ratio 1849 instrumented by young dependency ratio 1816. The dependent variable is employment in metal factories divided by the total population. All regressions include a constant and control for educational and geographical characteristics, for pre-industrial development as well as for province fixed effects where indicated. Educational and geographic control variables are the years of schooling 1849, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011), Becker *et al.* (2013), Becker *et al.* (2014), Edwards (2018), and Galloway (2007). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

Table B.12: *2SLS Estimates - 1849 - Robustness - Textile Industry*

Dependent Variable:	Share of Textile Factory Workers in Total Population 1849														
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Young Dependency Ratio 1849	-0.024***	-0.033***	-0.027***	-0.027***	-0.027***	-0.029***	-0.038***	-0.028***	-0.030***	-0.029***	-0.035***	-0.031***	-0.029***	-0.031*	-0.077*
	(0.008)	(0.009)	(0.008)	(0.009)	(0.008)	(0.008)	(0.010)	(0.009)	(0.009)	(0.008)	(0.009)	(0.010)	(0.009)	(0.016)	(0.044)
School Enrollment Rate 1849	0.004*														
	(0.002)														
Share Protestants in Total Population 1816		-0.001													
		(0.001)													
Share Jews in Total Population 1816			-0.038*												
			(0.021)												
Share of Population living in Cities 1849				0.004											
				(0.004)											
Medium and Large Towns 1816					0.002**										
					(0.001)										
Landownership Inequality 1849						-0.016									
						(0.010)									
Share Population born in County 1880							0.016**								
							(0.006)								
Net International Migration 1880								0.000							
								(0.000)							
Western Part									0.000						
									(0.001)						
Polish Parts										-0.001*					
										(0.001)					
Latitude (in rad)											-0.011				
											(0.012)				
Longitude (in rad)											-0.014***				
											(0.005)				
Year of Annexation												0.003			
												(0.007)			
Observations	323	323	323	323	323	323	323	323	323	323	323	323	323	161	159
Education and Geography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Province Effects	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Effective F-Statistic	63.01	59.31	52.11	50.93	53.92	54.15	46.20	52.78	54.25	53.61	60.66	52.75	22.87	38.80	6.97
AR p-value	0.002	0.001	0.002	0.002	0.001	0.001	0.000	0.001	0.001	0.001	0.000	0.004	0.013	0.059	0.046
AR 95% CI Lower Bound	-0.040	-0.052	-0.043	-0.046	-0.044	-0.046	-0.060	-0.046	-0.048	-0.046	-0.054	-0.052	-0.054	-0.068	-0.228
AR 95% CI Upper Bound	-0.009	-0.015	-0.010	-0.011	-0.011	-0.013	-0.018	-0.012	-0.012	-0.013	-0.017	-0.011	-0.010	0.000	-0.002
Moran's I									-0.002	-0.003	-0.004	-0.004			
p-value of Moran Test									0.110	0.890	0.499	0.477			

Notes: This table reports instrumental variable estimates, with young dependency ratio 1849 instrumented by young dependency ratio 1816. The dependent variable is employment in textile factories divided by the total population. All regressions include a constant and control for educational and geographical characteristics, for pre-industrial development as well as for province fixed effects where indicated. Educational and geographic control variables are the years of schooling 1849, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011), Becker *et al.* (2013), Becker *et al.* (2014), Edwards (2018), and Galloway (2007). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

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Table B.13: *2SLS Estimates - 1882 - Robustness - Total Industry*

Dependent Variable:	Share of All Manufacturing Workers in Total Population 1882													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Young Dependency Ratio 1882	-0.226***	-0.218***	-0.151**	-0.190***	-0.198***	-0.150**	-0.206***	-0.254***	-0.222***	-0.372***	-0.379***	-0.201**	-0.480**	-0.341
	(0.075)	(0.076)	(0.062)	(0.067)	(0.069)	(0.071)	(0.070)	(0.085)	(0.072)	(0.101)	(0.102)	(0.087)	(0.244)	(0.237)
Share Protestants in Total Population 1816	-0.009													
	(0.009)													
Share Jews in Total Population 1816		0.229												
		(0.147)												
Share of Population living in Cities 1849			0.132***											
			(0.037)											
Medium and Large Towns 1816				0.014***										
				(0.005)										
Landownership Inequality 1849					-0.207*									
					(0.121)									
Share Population born in County 1880						-0.102***								
						(0.037)								
Net International Migration 1880							-0.000							
							(0.000)							
Western Part								0.018**						
								(0.009)						
Polish Parts									-0.018***					
									(0.006)					
Latitude (in rad)										-0.476***				
										(0.138)				
Longitude (in rad)										-0.199***				
										(0.056)				
Year of Annexation											0.229***			
											(0.080)			
Observations	323	323	323	323	323	323	323	323	323	323	323	323	161	161
Education and Geography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industrial Progress	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Province Effects	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Effective F-Statistic	32.34	29.85	32.65	32.52	33.02	26.10	31.87	25.55	32.05	24.21	25.62	16.99	5.93	7.30
AR p-value	0.000	0.000	0.004	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.012	0.012	0.040
AR 95% CI Lower Bound	-0.405	-0.406	-0.305	-0.358	-0.369	-0.338	-0.381	-0.472	-0.402	-0.633	-0.633	-0.549	-1.625	-1.510
AR 95% CI Upper Bound	-0.099	-0.095	-0.046	-0.081	-0.082	-0.035	-0.086	-0.117	-0.105	-0.208	-0.214	-0.053	-0.104	-0.013
Moran's I								0.001	0.000	-0.002	-0.004			
p-value of Moran Test								0.000	0.001	0.472	0.421			
Young Dependency Ratio 1882	-0.187***	-0.175***	-0.122**	-0.152***	-0.159***	-0.098*	-0.164***	-0.200***	-0.177***	-0.299***	-0.308***	-0.161**	-0.108**	-0.182*
	(0.064)	(0.064)	(0.055)	(0.058)	(0.059)	(0.058)	(0.060)	(0.070)	(0.062)	(0.085)	(0.085)	(0.074)	(0.047)	(0.098)
Share Protestants in Total Population 1816	-0.010													
	(0.008)													
Share Jews in Total Population 1816		0.204												
		(0.126)												
Share of Population living in Cities 1849			0.112***											
			(0.033)											
Medium and Large Towns 1816				0.013***										
				(0.005)										
Landownership Inequality 1849					-0.186*									
					(0.105)									
Share Population born in County 1880						-0.125***								
						(0.031)								
Net International Migration 1880							-0.000							
							(0.000)							
Western Part								0.013*						
								(0.008)						
Polish Parts									-0.013**					
									(0.006)					
Latitude (in rad)										-0.409***				
										(0.124)				
Longitude (in rad)										-0.149***				
										(0.047)				
Year of Annexation											0.210***			
											(0.069)			
Observations	323	323	323	323	323	323	323	323	323	323	323	323	161	162
Education and Geography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industrial Progress	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Province Effects	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Effective F-Statistic	34.604	32.429	34.562	34.965	35.440	28.277	34.290	27.986	34.481	26.552	27.301	18.664	21.564	21.516
AR p-value	0.001	0.001	0.011	0.002	0.002	0.046	0.002	0.000	0.001	0.000	0.000	0.023	0.023	0.026
AR 95% CI Lower Bound	-0.342	-0.330	-0.254	-0.292	-0.301	-0.247	-0.309	-0.376	-0.326	-0.510	-0.513	-0.429	-0.226	-0.470
AR 95% CI Upper Bound	-0.077	-0.066	-0.029	-0.053	-0.058	-0.004	-0.061	-0.085	-0.072	-0.162	-0.164	-0.028	-0.020	-0.024
Moran's I								0.000	-0.001	-0.003	-0.004			
p-value of Moran Test								0.001	0.007	0.657	0.383			

Notes: This table reports instrumental variable estimates, with young dependency ratio 1882 instrumented by young dependency ratio 1816. The dependent variable is total employment in manufacturing divided by the total population. All regressions include a constant and control for educational and geographical characteristics, for pre-industrial development, for province fixed effects as well as for the industrial level reached in 1849 where indicated. Educational and geographic control variables are the years of schooling 1849, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011), Becker *et al.* (2013), Becker *et al.* (2014), Edwards (2018), and Galloway (2007). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

Table B.14: *2SLS Estimates - 1882 - Robustness - Industries Outside Metal and Textile*

Dependent Variable:	Share of Manufacturing Workers Outside Metal and Textile in Total Population 1882													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Young Dependency Ratio 1882	-0.055***	-0.060***	-0.042**	-0.048***	-0.053***	-0.037*	-0.054***	-0.050**	-0.059***	-0.093***	-0.079***	-0.053**	-0.095	-0.084
	(0.019)	(0.019)	(0.017)	(0.017)	(0.018)	(0.019)	(0.018)	(0.021)	(0.019)	(0.025)	(0.021)	(0.024)	(0.061)	(0.054)
Share Protestants in Total Population 1816	-0.000													
	(0.003)													
Share Jews in Total Population 1816		0.092**												
		(0.044)												
Share of Population living in Cities 1849			0.030***											
			(0.009)											
Medium and Large Towns 1816				0.007***										
				(0.001)										
Landownership Inequality 1849					-0.044									
					(0.040)									
Share Population born in County 1880						-0.033***								
						(0.011)								
Net International Migration 1880							-0.000							
							(0.000)							
Western Part								-0.001						
								(0.002)						
Polish Parts									-0.005***					
									(0.002)					
Latitude (in rad)										-0.128***				
										(0.044)				
Longitude (in rad)										-0.040***				
										(0.014)				
Year of Annexation											0.063***			
											(0.023)			
Observations	323	323	323	323	323	323	323	323	323	323	323	323	161	161
Education and Geography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industrial Progress	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Province Effects	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Effective F-Statistic	32.34	29.85	32.65	32.52	33.02	26.10	31.87	25.55	32.05	24.21	25.62	16.99	5.93	7.30
AR p-value	0.002	0.002	0.013	0.004	0.003	0.053	0.002	0.009	0.001	0.000	0.000	0.038	0.077	0.076
AR 95% CI Lower Bound	-0.096	-0.103	-0.081	-0.088	-0.093	-0.079	-0.095	-0.098	-0.100	-0.153	-0.127	-0.134	-0.341	-0.296
AR 95% CI Upper Bound	-0.019	-0.025	-0.010	-0.016	-0.019	0.000	-0.020	-0.014	-0.026	-0.050	-0.040	-0.005	0.007	0.007
Moran's I								0.004	0.002	0.000	-0.004			
p-value of Moran Test								0.000	0.000	0.000	0.490			
Young Dependency Ratio 1882	-0.050***	-0.050***	-0.034**	-0.038**	-0.044***	-0.026	-0.045***	-0.043**	-0.049***	-0.082***	-0.077***	-0.044**	-0.023	-0.064**
	(0.018)	(0.018)	(0.016)	(0.016)	(0.017)	(0.018)	(0.017)	(0.019)	(0.017)	(0.023)	(0.020)	(0.022)	(0.022)	(0.031)
Share Protestants in Total Population 1816	-0.002													
	(0.003)													
Share Jews in Total Population 1816		0.082**												
		(0.041)												
Share of Population living in Cities 1849			0.029***											
			(0.009)											
Medium and Large Towns 1816				0.007***										
				(0.001)										
Landownership Inequality 1849					-0.042									
					(0.038)									
Share Population born in County 1880						-0.036***								
						(0.010)								
Net International Migration 1880							-0.000							
							(0.000)							
Western Part								-0.000						
								(0.002)						
Polish Parts									-0.004***					
									(0.002)					
Latitude (in rad)										-0.125***				
										(0.043)				
Longitude (in rad)										-0.036***				
										(0.013)				
Year of Annexation											0.063***			
											(0.022)			
Observations	323	323	323	323	323	323	323	323	323	323	323	323	162	161
Education and Geography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industrial Progress	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Province Effects	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Effective F-Statistic	32.34	30.02	32.74	32.53	33.11	26.24	31.97	25.87	32.11	24.38	25.80	17.28	19.63	14.66
AR p-value	0.004	0.005	0.037	0.016	0.008	0.143	0.008	0.018	0.003	0.000	0.000	0.064	0.300	0.020
AR 95% CI Lower Bound	-0.088	-0.089	-0.069	-0.075	-0.081	-0.065	-0.082	-0.089	-0.088	-0.135	-0.123	-0.114	-0.070	-0.149
AR 95% CI Upper Bound	-0.016	-0.017	-0.003	-0.008	-0.012	0.008	-0.013	-0.009	-0.017	-0.041	-0.040	0.002	0.022	-0.012
Moran's I								0.002	0.001	0.000	-0.004			
p-value of Moran Test								0.000	0.000	0.001	0.478			

Notes: This table reports instrumental variable estimates, with young dependency ratio 1882 instrumented by young dependency ratio 1816. The dependent variable is employment in manufacturing outside metal and textile divided by the total population. All regressions include a constant and control for educational and geographical characteristics, for pre-industrial development, for province fixed effects as well as for the industrial level outside metal and textile reached in 1849 where indicated. Educational and geographic control variables are the years of schooling 1849, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011), Becker *et al.* (2013), Becker *et al.* (2014), Edwards (2018), and Galloway (2007). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

Table B.15: *2SLS Estimates - 1882 - Robustness - Metal Industry*

Dependent Variable:	Share of Metal Manufacturing Workers in Total Population 1882													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Young Dependency Ratio 1882	0.016	-0.002	0.018	0.002	0.001	0.040	-0.004	-0.028	-0.011	-0.049	-0.055	-0.000	-0.173	-0.065
	(0.047)	(0.049)	(0.042)	(0.044)	(0.044)	(0.050)	(0.045)	(0.052)	(0.046)	(0.055)	(0.061)	(0.054)	(0.120)	(0.177)
Share Protestants in Total Population 1816	0.006													
	(0.004)													
Share Jews in Total Population 1816		0.031												
		(0.082)												
Share of Population living in Cities 1849			0.047											
			(0.029)											
Medium and Large Towns 1816				0.002										
				(0.003)										
Landownership Inequality 1849					-0.086**									
					(0.041)									
Share Population born in County 1880						-0.081***								
						(0.029)								
Net International Migration 1880							-0.000							
							(0.000)							
Western Part								0.009						
								(0.006)						
Polish Parts									-0.009***					
									(0.003)					
Latitude (in rad)										-0.131**				
										(0.066)				
Longitude (in rad)										-0.058*				
										(0.032)				
Year of Annexation											0.063**			
											(0.027)			
Observations	323	323	323	323	323	323	323	323	323	323	323	323	161	161
Education and Geography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industrial Progress	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Province Effects	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Effective F-Statistic	32.34	29.85	32.65	32.52	33.02	26.10	31.87	25.55	32.05	24.21	25.62	16.99	5.93	7.30
AR p-value	0.733	0.960	0.685	0.970	0.983	0.453	0.926	0.569	0.811	0.345	0.330	0.997	0.066	0.689
AR 95% CI Lower Bound	-0.093	-0.120	-0.080	-0.105	-0.101	-0.083	-0.110	-0.159	-0.118	-0.187	-0.206	-0.188	-0.735	-0.866
AR 95% CI Upper Bound	0.100	0.081	0.092	0.077	0.075	0.125	0.073	0.061	0.067	0.046	0.048	0.103	0.002	0.193
Moran's I								-0.003	-0.003	-0.003	-0.004			
p-value of Moran Test								0.915	0.654	0.797	0.490			
Young Dependency Ratio 1882	0.019	-0.002	0.011	0.001	0.001	0.042	-0.003	-0.010	-0.007	-0.029	-0.010	0.000	-0.055**	0.054
	(0.041)	(0.043)	(0.039)	(0.040)	(0.039)	(0.044)	(0.040)	(0.044)	(0.041)	(0.047)	(0.048)	(0.050)	(0.022)	(0.072)
Share Protestants in Total Population 1816	0.007*													
	(0.004)													
Share Jews in Total Population 1816		0.022												
		(0.070)												
Share of Population living in Cities 1849			0.030											
			(0.030)											
Medium and Large Towns 1816				0.001										
				(0.003)										
Landownership Inequality 1849					-0.075**									
					(0.035)									
Share Population born in County 1880						-0.083***								
						(0.028)								
Net International Migration 1880							-0.000							
							(0.000)							
Western Part								0.004						
								(0.005)						
Polish Parts									-0.006**					
									(0.003)					
Latitude (in rad)										-0.094				
										(0.058)				
Longitude (in rad)										-0.030				
										(0.025)				
Year of Annexation											0.048**			
											(0.022)			
Observations	323	323	323	323	323	323	323	323	323	323	323	323	162	161
Education and Geography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industrial Progress	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Province Effects	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Effective F-Statistic	34.24	31.53	33.31	34.11	34.65	27.51	33.49	27.97	33.83	26.34	27.88	17.33	16.77	20.12
AR p-value	0.652	0.971	0.776	0.978	0.979	0.386	0.936	0.807	0.855	0.508	0.824	0.999	0.014	0.499
AR 95% CI Lower Bound	-0.073	-0.103	-0.080	-0.091	-0.090	-0.065	-0.098	-0.112	-0.102	-0.142	-0.121	-0.161	-0.105	-0.149
AR 95% CI Upper Bound	0.092	0.075	0.081	0.072	0.071	0.117	0.069	0.067	0.065	0.050	0.070	0.102	-0.013	0.177
Moran's I								-0.003	-0.004	-0.003	-0.004			
p-value of Moran Test								0.722	0.479	0.645	0.360			

Notes: This table reports instrumental variable estimates, with young dependency ratio 1882 instrumented by young dependency ratio 1816. The dependent variable is employment in metal manufacturing divided by the total population. All regressions include a constant and control for educational and geographical characteristics, for pre-industrial development, for province fixed effects as well as for the metal industrial level reached in 1849 where indicated. Educational and geographic control variables are the years of schooling 1849, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011), Becker *et al.* (2013), Becker *et al.* (2014), Edwards (2018), and Galloway (2007). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

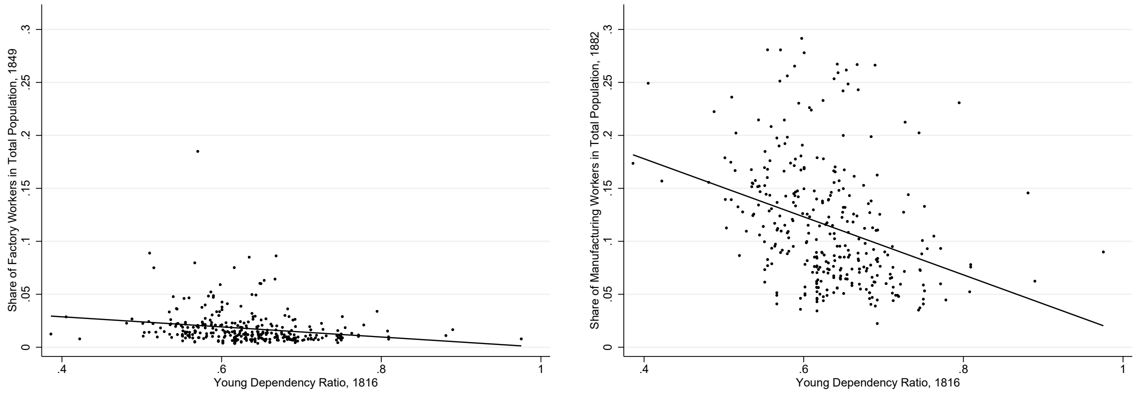
Table B.16: *2SLS Estimates - 1882 - Robustness - Textile Industry*

Dependent Variable:	Share of Textile Manufacturing Workers in Total Population 1882													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Young Dependency Ratio 1882	-0.187***	-0.155***	-0.127***	-0.144***	-0.147***	-0.153***	-0.147***	-0.175***	-0.152***	-0.230***	-0.245***	-0.148***	-0.212	-0.191**
	(0.044)	(0.041)	(0.035)	(0.038)	(0.038)	(0.041)	(0.039)	(0.046)	(0.039)	(0.057)	(0.059)	(0.047)	(0.129)	(0.082)
Share Protestants in Total Population 1816	-0.014***													
	(0.005)													
Share Jews in Total Population 1816		0.106												
		(0.086)												
Share of Population living in Cities 1849			0.055***											
			(0.020)											
Medium and Large Towns 1816				0.005										
				(0.004)										
Landownership Inequality 1849					-0.077									
					(0.081)									
Share Population born in County 1880						0.011								
						(0.021)								
Net International Migration 1880							0.000							
							(0.000)							
Western Part								0.009						
								(0.006)						
Polish Parts									-0.004					
									(0.005)					
Latitude (in rad)										-0.216**				
										(0.092)				
Longitude (in rad)										-0.101***				
										(0.039)				
Year of Annexation											0.103*			
											(0.053)			
Observations	323	323	323	323	323	323	323	323	323	323	323	323	161	161
Education and Geography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industrial Progress	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Province Effects	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Effective F-Statistic	32.34	29.85	32.65	32.52	33.02	26.10	31.87	25.55	32.05	24.21	25.62	16.99	5.93	7.30
AR p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.084	0.014
AR 95% CI Lower Bound	-0.287	-0.251	-0.209	-0.232	-0.234	-0.253	-0.237	-0.287	-0.243	-0.363	-0.383	-0.318	-0.696	-0.505
AR 95% CI Upper Bound	-0.109	-0.082	-0.063	-0.076	-0.080	-0.083	-0.079	-0.093	-0.083	-0.129	-0.139	-0.061	0.027	-0.052
Moran's I								-0.001	-0.001	-0.003	-0.004			
p-value of Moran Test								0.006	0.005	0.708	0.414			
Young Dependency Ratio 1882	-0.145***	-0.121***	-0.094***	-0.111***	-0.112***	-0.106***	-0.113***	-0.137***	-0.115***	-0.175***	-0.201***	-0.112***	-0.069***	-0.128**
	(0.038)	(0.035)	(0.031)	(0.033)	(0.032)	(0.035)	(0.033)	(0.040)	(0.033)	(0.049)	(0.054)	(0.039)	(0.026)	(0.051)
Share Protestants in Total Population 1816	-0.011**													
	(0.005)													
Share Jews in Total Population 1816		0.119*												
		(0.067)												
Share of Population living in Cities 1849			0.049***											
			(0.017)											
Medium and Large Towns 1816				0.002										
				(0.003)										
Landownership Inequality 1849					-0.063									
					(0.069)									
Share Population born in County 1880						-0.013								
						(0.017)								
Net International Migration 1880							-0.000							
							(0.000)							
Western Part								0.008						
								(0.005)						
Polish Parts									-0.002					
									(0.004)					
Latitude (in rad)										-0.165**				
										(0.080)				
Longitude (in rad)										-0.069**				
										(0.035)				
Year of Annexation											0.092**			
											(0.045)			
Observations	323	323	323	323	323	323	323	323	323	323	323	323	161	162
Education and Geography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-Industrial Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industrial Progress	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Province Effects	-	-	-	-	-	-	-	-	-	-	✓	-	-	-
Effective F-Statistic	30.46	28.83	31.29	31.21	31.50	24.41	30.57	24.46	30.52	22.03	24.25	16.28	10.37	24.07
AR p-value	0.000	0.000	0.002	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.008	0.002	0.013
AR 95% CI Lower Bound	-0.232	-0.202	-0.165	-0.187	-0.187	-0.190	-0.187	-0.234	-0.192	-0.294	-0.323	-0.255	-0.149	-0.251
AR 95% CI Upper Bound	-0.077	-0.058	-0.039	-0.053	-0.054	-0.044	-0.054	-0.066	-0.056	-0.087	-0.104	-0.040	-0.026	-0.034
Moran's I								-0.002	-0.002	-0.003	-0.004			
p-value of Moran Test								0.077	0.090	0.869	0.411			

Notes: This table reports instrumental variable estimates, with young dependency ratio 1882 instrumented by young dependency ratio 1816. The dependent variable is employment in textile manufacturing divided by the total population. All regressions include a constant and control for educational and geographical characteristics, for pre-industrial development, for province fixed effects as well as for the textile industrial level reached in 1849 where indicated. Educational and geographic control variables are the years of schooling 1849, population density, and county area (in 1000 km^2). The pre-industrial control variables are the share of population living in cities 1816, looms per capita 1819, steam engines in mining per capita 1849, sheep per capita 1816, the share of farm laborers in total population 1819, public buildings per capita 1821, paved streets 1815 (dummy) and tonnage of ships per capita 1819. Data sources: Becker *et al.* (2011), Becker *et al.* (2013), Becker *et al.* (2014), Edwards (2018), and Galloway (2007). Standard errors (adjusted for clustering by 269 original counties) in parentheses. *** p<0.01,** p<0.05, * p<0.1.

B.3 Figures

B.3.1 Reduced-Form Figures



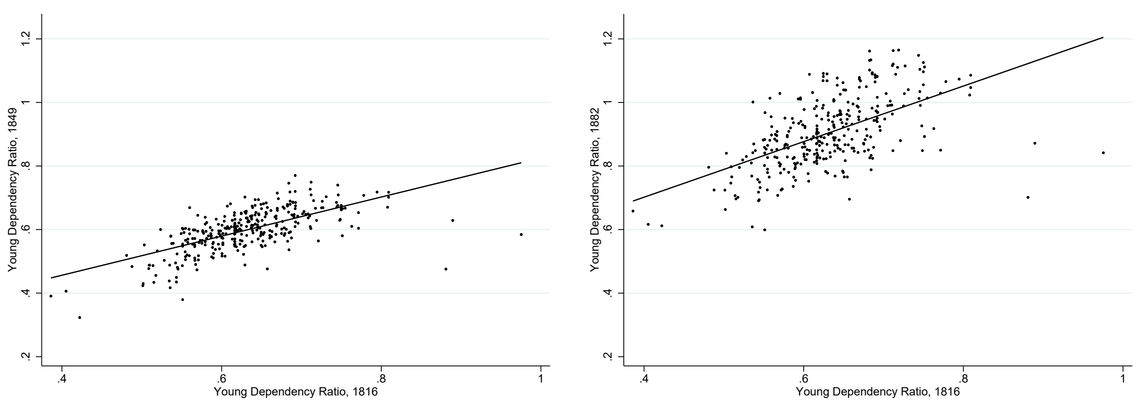
(a) 1849

(b) 1882

Figure B.1: *Reduced-Form Figures*

Data sources: Becker et al. (2011) and Becker et al. (2014).

B.3.2 First-Stage Figures



(a) 1849

(b) 1882

Figure B.2: *First-Stage Figures*

Data sources: Becker et al. (2014) and Galloway (2007).

B.3.3 Descriptive Figures

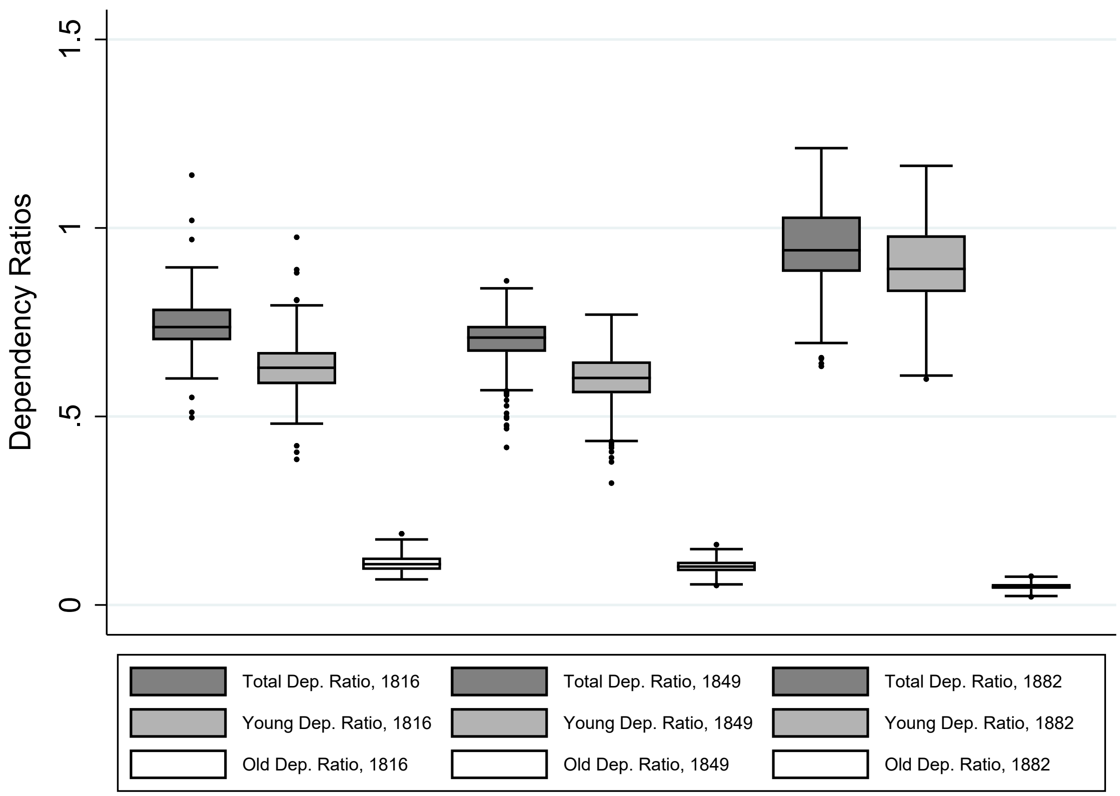
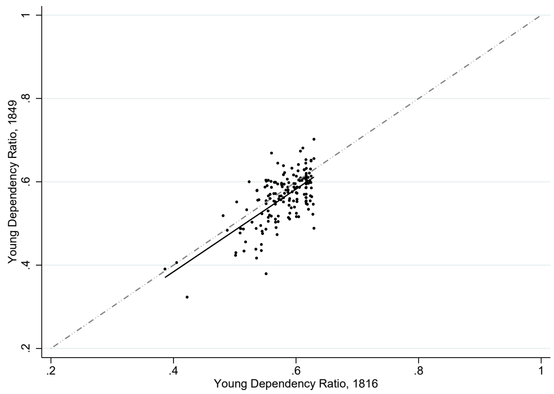
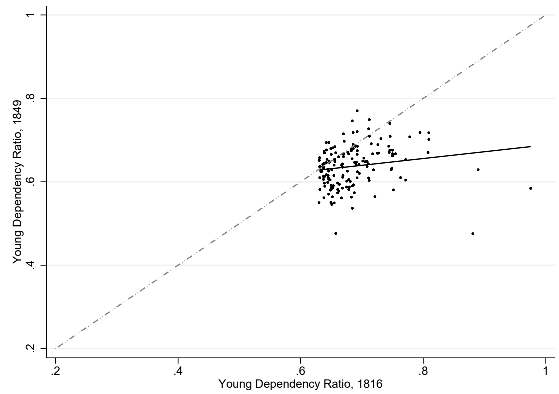


Figure B.3: *Dependency Ratios*

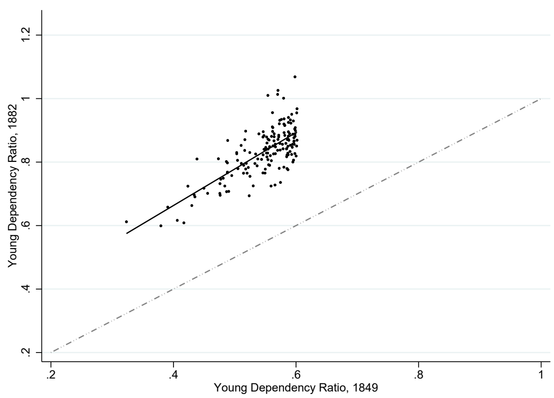
Data sources: Becker et al. (2014) and Galloway (2007).



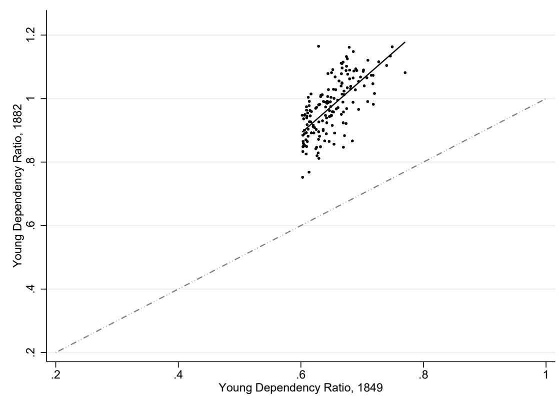
(a) Below Median YDR 1816



(b) Above Median YDR 1816



(c) Below Median YDR 1849



(d) Above Median YDR 1849

Figure B.4: *Split-Sample Figures*

Data sources: Becker et al. (2014) and Galloway (2007).

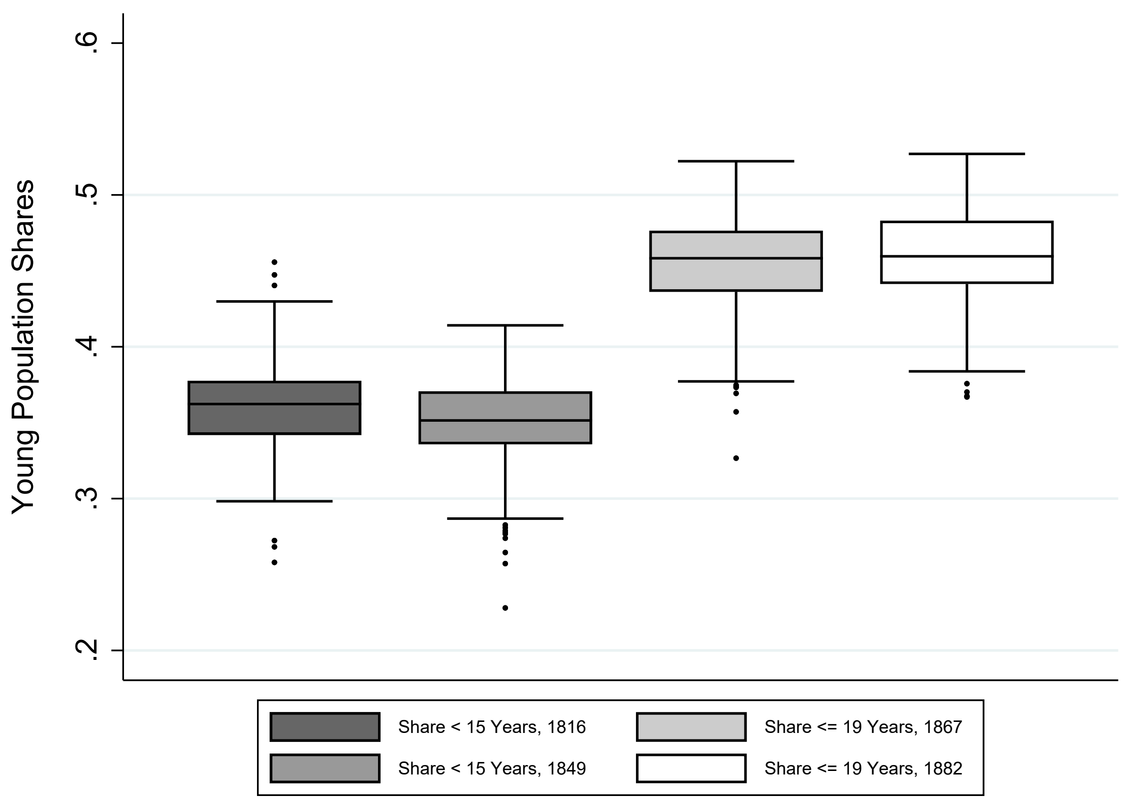


Figure B.5: *Young Population Shares - Robustness Tests - Further Results*

Data sources: Becker et al. (2014) and Galloway (2007).

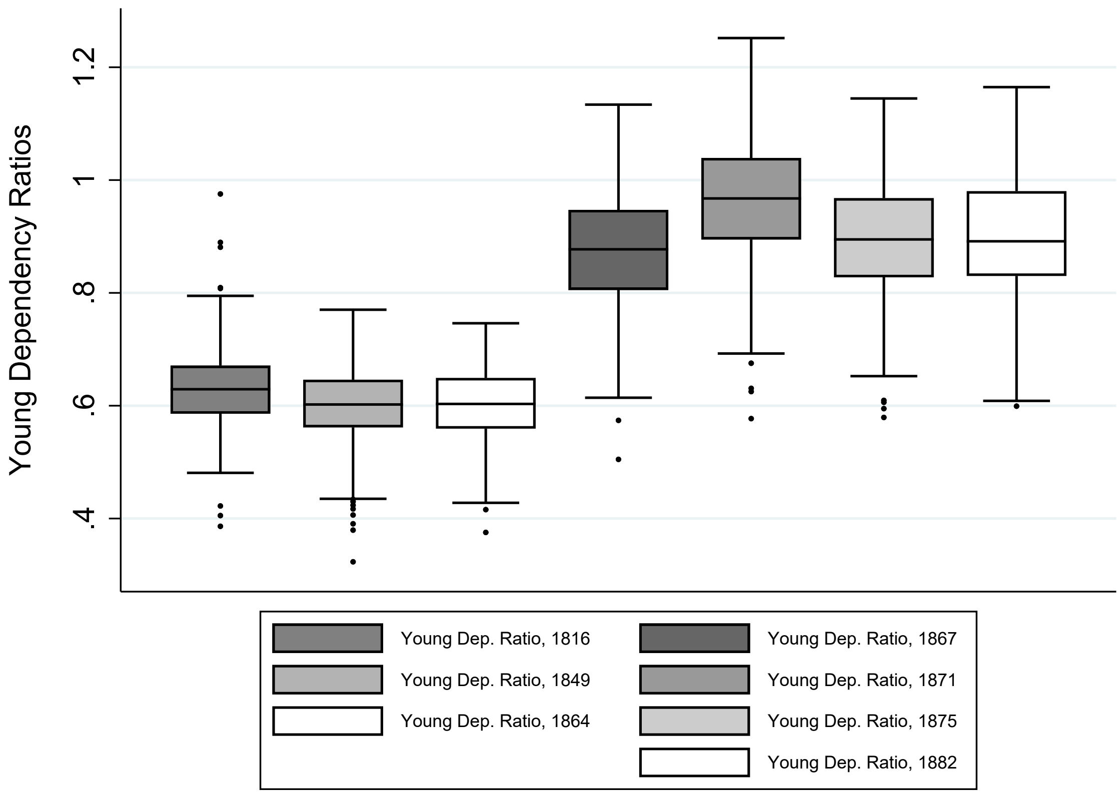


Figure B.6: *Young Dependency Ratios - Panel Estimates*

Data sources: Becker et al. (2014) and Galloway (2007).

Appendix C

Appendix to Chapter 3

C.1 Additional Empirical Results

C.1.1 Replication Acemoglu and Johnson (2007)

Low- and Middle-Income Countries

Table C.1: *Acemoglu and Johnson (2007) - First-Stage and Reduced-Form Estimates Low- and Middle-Income Countries Sample*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(LEB)					
Change in Predicted Mortality	-0.305***	-0.251***	-0.179***	-0.223**	-0.196***
	(0.083)	(0.062)	(0.058)	(0.101)	(0.058)
	[-0.474,-0.135]	[-0.377,-0.124]	[-0.297,-0.06]	[-0.428,-0.018]	[-0.314,-0.077]
Adjusted R^2	0.254	0.185	0.145	0.136	0.211
Countries	36	36	36	36	36
Number of Clusters	34	34	34	34	34
B. Dependent Variable: Change in Ln(Population)					
Change in Predicted Mortality	-0.622***	-0.403*	-0.372*	-0.607***	-0.350*
	(0.203)	(0.200)	(0.197)	(0.183)	(0.177)
	[-1.034,-0.209]	[-0.811,0.004]	[-0.773,0.029]	[-0.98,-0.235]	[-0.71,0.009]
Adjusted R^2	0.149	0.055	0.085	0.157	0.088
Countries	36	36	36	36	36
Number of Clusters	34	34	34	34	34
C. Dependent Variable: Change in Ln(GDP)					
Change in Predicted Mortality	0.119	-0.041	0.228	-0.093	0.237
	(0.308)	(0.460)	(0.295)	(0.234)	(0.260)
	[-0.506,0.745]	[-0.977,0.895]	[-0.373,0.829]	[-0.568,0.382]	[-0.292,0.766]
Adjusted R^2	-0.025	-0.029	0.000	-0.026	0.007
Countries	36	36	36	36	36
Number of Clusters	34	34	34	34	34
D. Dependent Variable: Change in Ln(GDP per capita)					
Change in Predicted Mortality	0.716***	0.325	0.554***	0.509**	0.545***
	(0.212)	(0.301)	(0.147)	(0.220)	(0.145)
	[0.286,1.147]	[-0.287,0.937]	[0.254,0.854]	[0.062,0.956]	[0.25,0.84]
Adjusted R^2	0.155	0.013	0.169	0.073	0.191
Countries	36	36	36	36	36
Number of Clusters	34	34	34	34	34

Notes: Column 1 presents the replicated results for Table 5 Panel A Column 4, 1940-1980, and Table 7 Panel B, 1940-1980, in Acemoglu and Johnson (2007). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Figures in brackets are 95% confidence intervals based on cluster-robust estimates of the variance matrix.

Table C.2: *Acemoglu and Johnson (2007) - 2SLS Estimates*
Low- and Middle-Income Countries Sample

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(Population)					
Change in Ln(LEB)	2.041***	1.609**	2.085*	2.725***	1.792**
	(0.712)	(0.693)	(1.109)	(0.964)	(0.774)
	[0.817,6.203]	[0.31,5.712]	[∞,∞]	[1.325,∞]	[0.705,∞]
Effective F-Statistic	13.34	16.25	9.46	4.90	11.24
Countries	36	36	36	36	36
Number of Clusters	34	34	34	34	34
B. Dependent Variable: Change in Ln(Total Births)					
Change in Ln(LEB)	2.919***	2.074**	3.473***	3.375**	2.940***
	(0.957)	(0.781)	(1.231)	(1.305)	(0.808)
	[1.08,7.867]	[-0.396,5.476]	[∞,∞]	[1.07,∞]	[1.576,∞]
Effective F-Statistic	14.31	14.82	8.83	4.70	10.65
Countries	34	34	34	34	34
Number of Clusters	32	32	32	32	32
C. Dependent Variable: Change in Ln(GDP)					
Change in Ln(LEB)	-0.392	0.163	-1.276	0.416	-1.214
	(1.013)	(1.832)	(1.707)	(1.046)	(1.424)
	[-2.975,3.59]	[-3.043,11.797]	[∞,∞]	[-3.727,8.137]	[-4.532,∞]
Effective F-Statistic	13.34	16.25	9.46	4.90	11.24
Countries	36	36	36	36	36
Number of Clusters	34	34	34	34	34
D. Dependent Variable: Change in Ln(GDP per capita)					
Change in Ln(LEB)	-2.352***	-1.296	-3.103***	-2.285**	-2.786***
	(0.796)	(1.159)	(1.038)	(1.117)	(0.863)
	[-6.056,-0.634]	[-3.398,5.792]	[∞,∞]	[∞,-0.155]	[∞,3.72]
Effective F-Statistic	13.34	16.25	9.46	4.90	11.24
Countries	36	36	36	36	36
Number of Clusters	34	34	34	34	34

Notes: Column 1 presents the replicated results for Table 8 Panel A, 1940-1980, Table 8 Panel B, 1940-1980, Table 9 Panel A, 1940-1980, and Table 9 Panel B, 1940-1980, in Acemoglu and Johnson (2007). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The IV estimates were obtained using the Stata command *ivreg2* (Baum *et al.*, 2002). The *effective F-statistic* (Olea and Pflueger, 2013), allowing for errors that are not conditionally homoskedastic and serially uncorrelated, is obtained using the Stata command *weakivtest* (Pflueger and Wang, 2015). The (Anderson-Rubin) 95% confidence intervals presented in brackets are weak-IV-robust ones obtained using the Stata command *weakiv* (Finlay *et al.*, 2013).

Falsification Exercise

Table C.3: *Acemoglu and Johnson (2007) - Falsification Exercise Low- and Middle-Income Countries Sample*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(LEB), 1930-1940					
Change in Predicted Mortality	-0.117***	-0.018	-0.066**	-0.148**	-0.070**
	(0.039)	(0.044)	(0.029)	(0.052)	(0.031)
	[-0.2,-0.035]	[-0.11,0.074]	[-0.127,-0.004]	[-0.257,-0.039]	[-0.135,-0.004]
Adjusted R^2	0.249	-0.042	0.137	0.305	0.168
Countries	22	22	22	22	22
Number of Clusters	20	20	20	20	20
B. Dependent Variable: Change in Ln(LEB), 1900-1940					
Change in Predicted Mortality	0.212	0.397***	0.124	0.197	0.179*
	(0.156)	(0.126)	(0.101)	(0.171)	(0.104)
	[-0.106,0.529]	[0.141,0.652]	[-0.081,0.329]	[-0.151,0.544]	[-0.032,0.39]
Adjusted R^2	0.030	0.203	0.007	0.027	0.058
Countries	36	36	36	36	36
Number of Clusters	34	34	34	34	34
C. Dependent Variable: Change in Ln(Population), 1900-1940					
Change in Predicted Mortality	-0.136	0.043	0.007	-0.152	-0.007
	(0.237)	(0.170)	(0.179)	(0.175)	(0.165)
	[-0.617,0.346]	[-0.303,0.389]	[-0.358,0.372]	[-0.507,0.203]	[-0.343,0.33]
Adjusted R^2	-0.018	-0.030	-0.031	-0.014	-0.031
Countries	34	34	34	34	34
Number of Clusters	34	34	34	34	34
D. Dependent Variable: Change in Ln(GDP), 1900-1940					
Change in Predicted Mortality	0.051	0.195	0.255	0.381	0.329*
	(0.363)	(0.346)	(0.192)	(0.420)	(0.182)
	[-0.708,0.811]	[-0.529,0.918]	[-0.147,0.658]	[-0.498,1.260]	[-0.052,0.710]
Adjusted R^2	-0.055	-0.042	-0.016	-0.019	0.016
Countries	20	20	20	20	20
Number of Clusters	20	20	20	20	20
E. Dependent Variable: Change in Ln(GDP per capita), 1900-1940					
Change in Predicted Mortality	0.040	0.221	0.231	0.473	0.306*
	(0.234)	(0.250)	(0.139)	(0.348)	(0.158)
	[-0.45,0.53]	[-0.303,0.745]	[-0.06,0.523]	[-0.255,1.201]	[-0.025,0.638]
Adjusted R^2	-0.055	-0.024	0.002	0.045	0.055
Countries	20	20	20	20	20
Number of Clusters	20	20	20	20	20

Notes: Column 1 presents the estimation results for the low- and middle-income country sample in Figure 6, 1930-1940, and the replicated results in Table 7 Panel A, 1900-1940, in Acemoglu and Johnson (2007). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Figures in brackets are 95% confidence intervals based on cluster-robust estimates of the variance matrix.

Time Period: 1940-2000

Table C.4: *Acemoglu and Johnson (2007) - 2SLS Estimates*
Baseline Sample, 1940-2000

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(Population)					
Change in Ln(LEB)	1.956***	1.857***	2.004***	2.148***	1.813***
	(0.371)	(0.454)	(0.515)	(0.413)	(0.396)
	[1.294,3.037]	[1.048,3.692]	[1.305,∞]	[1.373,3.363]	[1.202,3.896]
Effective F-Statistic	62.47	37.72	33.66	23.27	35.73
Countries	47	47	47	47	47
Number of Clusters	45	45	45	45	45
B. Dependent Variable: Change in Ln(Total Births)					
Change in Ln(LEB)	2.154***	1.872***	2.468***	2.230***	2.191***
	(0.453)	(0.424)	(0.459)	(0.543)	(0.387)
	[1.205,3.272]	[0.691,2.959]	[1.55,5.804]	[1.076,3.657]	[1.301,3.568]
Effective F-Statistic	62.16	38.87	30.41	22.12	32.72
Countries	45	45	45	45	45
Number of Clusters	43	43	43	43	43
C. Dependent Variable: Change in Ln(GDP)					
Change in Ln(LEB)	0.420	0.314	0.257	0.521	0.141
	(0.363)	(0.608)	(0.539)	(0.485)	(0.449)
	[-0.324,1.347]	[-0.722,2.877]	[-0.729,4.263]	[-0.547,1.734]	[-0.730,2.033]
Effective F-Statistic	62.47	37.72	33.66	23.27	35.73
Countries	47	47	47	47	47
Number of Clusters	45	45	45	45	45
D. Dependent Variable: Change in Ln(GDP per capita)					
Change in Ln(LEB)	-1.506***	-1.476***	-1.649***	-1.616***	-1.586***
	(0.403)	(0.476)	(0.504)	(0.581)	(0.430)
	[-2.597,-0.731]	[-2.63,-0.061]	[-4.941,-0.594]	[-3.152,-0.408]	[-3.263,-0.685]
Effective F-Statistic	62.47	37.72	33.66	23.27	35.73
Countries	47	47	47	47	47
Number of Clusters	45	45	45	45	45

Notes: Column 1 presents the replicated results for Table 8 Panel A, 1940-2000, Table 8 Panel B, 1940-2000, Table 9 Panel A, 1940-2000, and Table 9 Panel B, 1940-2000, in Acemoglu and Johnson (2007). The long-difference estimation results for "Change in Ln(Total Births)" refer to the period 1940-1990, not 1940-2000 as is the case for the remainder of dependent variables. Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The IV estimates were obtained using the Stata command *ivreg2* (Baum *et al.*, 2002). The *effective F-statistic* (Olea and Pflueger, 2013), allowing for errors that are not conditionally homoskedastic and serially uncorrelated, is obtained using the Stata command *weakivtest* (Pflueger and Wang, 2015). The (Anderson-Rubin) 95% confidence intervals presented in brackets are weak-IV-robust ones obtained using the Stata command *weakiv* (Finlay *et al.*, 2013).

Table C.5: *Acemoglu and Johnson (2007) - 2SLS Estimates*
Low- and Middle-Income Countries Sample, 1940-2000

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(Population)					
Change in Ln(LEB)	2.176***	2.079**	2.341**	2.792***	1.964***
	(0.655)	(0.826)	(1.018)	(0.873)	(0.709)
	[0.959,4.956]	[0.608,∞]	[1.102,∞]	[1.291,9.214]	[0.902,∞]
Effective F-Statistic	20.30	15.76	13.44	6.24	14.62
Countries	36	36	36	36	36
Number of Clusters	34	34	34	34	34
B. Dependent Variable: Change in Ln(Total Births)					
Change in Ln(LEB)	2.673***	2.214***	3.412***	3.115**	2.785***
	(0.839)	(0.765)	(1.074)	(1.162)	(0.716)
	[0.98,6.079]	[-0.169,6.072]	[∞,∞]	[0.862,∞]	[1.386,∞]
Effective F-Statistic	19.40	14.95	10.83	5.41	12.38
Countries	34	34	34	34	34
Number of Clusters	32	32	32	32	32
C. Dependent Variable: Change in Ln(GDP)					
Change in Ln(LEB)	-0.581	-0.545	-0.722	-0.386	-0.869
	(0.764)	(1.029)	(0.877)	(1.050)	(0.764)
	[-3.430,1.043]	[-2.863,6.294]	[∞,∞]	[-5.356,2.424]	[-5.372,3.443]
Effective F-Statistic	20.30	15.76	13.44	6.24	14.62
Countries	36	36	36	36	36
Number of Clusters	34	34	34	34	34
D. Dependent Variable: Change in Ln(GDP per capita)					
Change in Ln(LEB)	-2.699***	-2.501***	-2.875**	-3.161**	-2.673***
	(0.986)	(0.912)	(1.178)	(1.383)	(0.913)
	[-7.379,-1.051]	[-7.104,0.213]	[∞,-1.127]	[-12.873,-0.675]	[∞,-1.189]
Effective F-Statistic	20.30	15.76	13.44	6.24	14.62
Countries	36	36	36	36	36
Number of Clusters	34	34	34	34	34

Notes: Column 1 presents the replicated results for Table 8 Panel A, 1940-2000, Table 8 Panel B, 1940-2000, Table 9 Panel A, 1940-2000, and Table 9 Panel B, 1940-2000, in Acemoglu and Johnson (2007). The long-difference estimation results for "Change in Ln(Total Births)" refer to the period 1940-1990, not 1940-2000 as is the case for the remainder of dependent variables. Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The IV estimates were obtained using the Stata command *ivreg2* (Baum *et al.*, 2002). The *effective F-statistic* (Olea and Pflueger, 2013), allowing for errors that are not conditionally homoskedastic and serially uncorrelated, is obtained using the Stata command *weakivtest* (Pflueger and Wang, 2015). The (Anderson-Rubin) 95% confidence intervals presented in brackets are weak-IV-robust ones obtained using the Stata command *weakiv* (Finlay *et al.*, 2013).

C.1.2 Homogeneous Country Sample - 9/13 Diseases

Population and Economic Growth

Table C.6: *First-Stage and Reduced-Form Estimates - Economic and Population Growth*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(LEB)					
Change in Predicted Mortality	-0.437***	-0.508***	-0.348***	-0.442***	-0.344***
	(0.075)	(0.078)	(0.075)	(0.081)	(0.066)
	[-0.587,-0.288]	[-0.664,-0.351]	[-0.498,-0.197]	[-0.605,-0.279]	[-0.475,-0.212]
Adjusted R^2	0.393	0.345	0.298	0.357	0.351
Countries	64	51	65	65	65
Number of Clusters	62	51	63	63	63
B. Dependent Variable: Change in Ln(Population)					
Change in Predicted Mortality	-0.774***	-0.859***	-0.558***	-0.799***	-0.531***
	(0.145)	(0.180)	(0.192)	(0.126)	(0.165)
	[-1.064,-0.483]	[-1.222,-0.495]	[-0.942,-0.173]	[-1.053,-0.546]	[-0.862,-0.201]
Adjusted R^2	0.270	0.183	0.171	0.256	0.188
Countries	56	46	57	57	57
Number of Clusters	54	46	55	55	55
C. Dependent Variable: Change in Ln(Total Births)					
Change in Predicted Mortality	-1.225***	-1.293***	-0.969***	-1.253***	-0.922***
	(0.223)	(0.309)	(0.220)	(0.217)	(0.192)
	[-1.673,-0.776]	[-1.918,-0.667]	[-1.413,-0.525]	[-1.69,-0.816]	[-1.309,-0.534]
Adjusted R^2	0.299	0.198	0.250	0.287	0.277
Countries	47	40	47	47	47
Number of Clusters	45	40	45	45	45
D. Dependent Variable: Change in Ln(GDP)					
Change in Predicted Mortality	-0.443	-0.704**	-0.098	-0.456**	-0.063
	(0.308)	(0.343)	(0.349)	(0.218)	(0.284)
	[-1.062,0.175]	[-1.395,-0.013]	[-0.798,0.602]	[-0.894,-0.019]	[-0.633,0.508]
Adjusted R^2	0.051	0.125	-0.014	0.050	-0.017
Countries	54	44	55	55	55
Number of Clusters	52	44	53	53	53
E. Dependent Variable: Change in Ln(GDP per capita)					
Change in Predicted Mortality	0.410*	0.258	0.463***	0.404**	0.466***
	(0.214)	(0.260)	(0.156)	(0.182)	(0.131)
	[-0.02,0.84]	[-0.266,0.782]	[0.151,0.775]	[0.039,0.77]	[0.202,0.729]
Adjusted R^2	0.066	0.006	0.126	0.058	0.158
Countries	54	44	55	55	55
Number of Clusters	52	44	53	53	53

Notes: To be in the sample countries need to have non-missing data on disease-specific mortality rates for at least 9 out of the 13 infectious diseases under consideration. Additionally, it is required that pneumonia and tuberculosis (all forms) have non-missing values. Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Figures in brackets are 95% confidence intervals based on cluster-robust estimates of the variance matrix.

Falsification Exercise

Table C.7: *Falsification Exercise*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(LEB), 1930-1940					
Change in Predicted Mortality	-0.040	-0.048	-0.056**	-0.074	-0.061**
	(0.037)	(0.069)	(0.025)	(0.047)	(0.024)
	[-0.115,0.034]	[-0.187,0.091]	[-0.107,-0.006]	[-0.168,0.02]	[-0.109,-0.013]
Adjusted R^2	0.013	0.005	0.068	0.068	0.093
Countries	52	40	53	53	53
Number of Clusters	50	40	51	51	51
B. Dependent Variable: Change in Ln(LEB), 1900-1940					
Change in Predicted Mortality	0.162	0.176	0.055	0.077	0.105
	(0.098)	(0.120)	(0.080)	(0.123)	(0.078)
	[-0.034,0.359]	[-0.066,0.417]	[-0.105,0.215]	[-0.168,0.322]	[-0.052,0.261]
Adjusted R^2	0.028	0.016	-0.010	-0.007	0.011
Countries	64	51	65	65	65
Number of Clusters	62	51	63	63	63
C. Dependent Variable: Change in Ln(Population), 1900-1940					
Change in Predicted Mortality	-0.226	-0.129	-0.082	-0.222*	-0.079
	(0.162)	(0.123)	(0.174)	(0.130)	(0.144)
	[-0.55,0.099]	[-0.377,0.119]	[-0.431,0.266]	[-0.483,0.038]	[-0.368,0.211]
Adjusted R^2	0.022	-0.014	-0.013	0.015	-0.013
Countries	53	46	54	54	54
Number of Clusters	53	46	54	54	54
D. Dependent Variable: Change in Ln(GDP), 1900-1940					
Change in Predicted Mortality	0.010	0.213	0.240	0.300	0.280**
	(0.260)	(0.329)	(0.144)	(0.298)	(0.137)
	[-0.518,0.538]	[-0.458,0.883]	[-0.052,0.532]	[-0.306,0.905]	[0.001,0.558]
Adjusted R^2	-0.030	-0.023	0.001	-0.005	0.020
Countries	35	32	35	35	35
Number of Clusters	35	32	35	35	35
E. Dependent Variable: Change in Ln(GDP per capita), 1900-1940					
Change in Predicted Mortality	0.038	0.281	0.221**	0.368	0.266**
	(0.191)	(0.251)	(0.099)	(0.221)	(0.110)
	[-0.35,0.426]	[-0.231,0.793]	[0.021,0.421]	[-0.08,0.817]	[0.043,0.489]
Adjusted R^2	-0.028	-0.001	0.020	0.042	0.054
Countries	36	32	36	36	36
Number of Clusters	36	32	36	36	36

Notes: To be in the sample countries need to have non-missing data on disease-specific mortality rates for at least 9 out of the 13 infectious diseases under consideration. Additionally, it is required that pneumonia and tuberculosis (all forms) have non-missing values. Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Figures in brackets are 95% confidence intervals based on cluster-robust estimates of the variance matrix.

C.1.3 Homogeneous Country Sample - 10/13 Diseases

Population and Economic Growth

Table C.8: *First-Stage and Reduced-Form Estimates - Economic and Population Growth*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(LEB)					
Change in Predicted Mortality	-0.491***	-0.512***	-0.373***	-0.502***	-0.363***
	(0.072)	(0.083)	(0.085)	(0.073)	(0.073)
	[-0.634,-0.347]	[-0.679,-0.345]	[-0.543,-0.204]	[-0.647,-0.356]	[-0.509,-0.217]
Adjusted R^2	0.453	0.325	0.325	0.406	0.374
Countries	61	49	62	62	62
Number of Clusters	59	49	60	60	60
B. Dependent Variable: Change in Ln(Population)					
Change in Predicted Mortality	-0.743***	-0.760***	-0.498***	-0.740***	-0.476***
	(0.158)	(0.187)	(0.175)	(0.138)	(0.151)
	[-1.061,-0.424]	[-1.138,-0.383]	[-0.85,-0.146]	[-1.018,-0.462]	[-0.778,-0.173]
Adjusted R^2	0.238	0.132	0.133	0.198	0.150
Countries	53	44	54	54	54
Number of Clusters	51	44	52	52	52
C. Dependent Variable: Change in Ln(Total Births)					
Change in Predicted Mortality	-1.179***	-1.103***	-0.866***	-1.110***	-0.822***
	(0.263)	(0.322)	(0.178)	(0.244)	(0.159)
	[-1.71,-0.649]	[-1.756,-0.451]	[-1.226,-0.507]	[-1.603,-0.617]	[-1.143,-0.501]
Adjusted R^2	0.272	0.138	0.208	0.209	0.234
Countries	44	38	44	44	44
Number of Clusters	42	38	42	42	42
D. Dependent Variable: Change in Ln(GDP)					
Change in Predicted Mortality	-0.414	-0.628*	-0.058	-0.460*	-0.033
	(0.354)	(0.367)	(0.361)	(0.259)	(0.294)
	[-1.125,0.297]	[-1.369,0.113]	[-0.784,0.668]	[-0.98,0.06]	[-0.622,0.557]
Adjusted R^2	0.036	0.087	-0.018	0.042	-0.019
Countries	51	42	52	52	52
Number of Clusters	49	42	50	50	50
E. Dependent Variable: Change in Ln(GDP per capita)					
Change in Predicted Mortality	0.393	0.211	0.430**	0.329	0.430***
	(0.254)	(0.303)	(0.185)	(0.223)	(0.154)
	[-0.117,0.904]	[-0.401,0.822]	[0.058,0.802]	[-0.119,0.778]	[0.12,0.74]
Adjusted R^2	0.053	-0.006	0.103	0.026	0.130
Countries	51	42	52	52	52
Number of Clusters	49	42	50	50	50

Notes: To be in the sample countries need to have non-missing data on disease-specific mortality rates for at least 10 out of the 13 infectious diseases under consideration. Additionally, it is required that pneumonia and tuberculosis (all forms) have non-missing values. Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Figures in brackets are 95% confidence intervals based on cluster-robust estimates of the variance matrix.

Table C.9: *2SLS Estimates - Population and Economic Growth*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(Population)					
Change in Ln(LEB)	1.578***	1.648***	1.447***	1.592***	1.383***
	(0.279)	(0.370)	(0.335)	(0.290)	(0.278)
	[1.069,2.455]	[0.589,2.69]	[0.913,∞]	[0.952,2.387]	[0.883,2.754]
Effective F-Statistic	43.10	29.85	30.17	37.75	35.34
Countries	51	43	51	51	51
Number of Clusters	49	43	49	49	49
B. Dependent Variable: Change in Ln(Total Births)					
Change in Ln(LEB)	2.203***	1.995***	2.317***	2.075***	2.188***
	(0.392)	(0.569)	(0.321)	(0.379)	(0.308)
	[1.198,3.048]	[-0.045,3.151]	[0.783,3.336]	[1.096,2.881]	[1.092,2.897]
Effective F-Statistic	94.93	53.05	30.16	79.80	37.04
Countries	44	38	44	44	44
Number of Clusters	42	38	42	42	42
C. Dependent Variable: Change in Ln(GDP)					
Change in Ln(LEB)	0.489	1.194*	-0.111	0.659	-0.080
	(0.613)	(0.679)	(0.885)	(0.500)	(0.747)
	[-0.448,2.716]	[0.027,3.938]	[-1.271,∞]	[-0.247,2.184]	[-1.152,4.262]
Effective F-Statistic	75.35	42.15	32.49	58.23	37.73
Countries	49	41	49	49	49
Number of Clusters	47	41	47	47	47
D. Dependent Variable: Change in Ln(GDP per capita)					
Change in Ln(LEB)	-1.012**	-0.422	-1.401**	-0.865**	-1.334**
	(0.411)	(0.581)	(0.575)	(0.389)	(0.499)
	[-1.653,0.454]	[-1.329,2.145]	[-2.172,∞]	[-1.565,0.329]	[-2.051,1.553]
Effective F-Statistic	75.35	42.15	32.49	58.23	37.73
Countries	49	41	49	49	49
Number of Clusters	47	41	47	47	47

Notes: To be in the sample countries need to have non-missing data on disease-specific mortality rates for at least 10 out of the 13 infectious diseases under consideration. Additionally, it is required that pneumonia and tuberculosis (all forms) have non-missing values. Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The IV estimates were obtained using the Stata command *ivreg2* (Baum *et al.*, 2002). The *effective F-statistic* (Olea and Pflueger, 2013), allowing for errors that are not conditionally homoskedastic and serially uncorrelated, is obtained using the Stata command *weakivtest* (Pflueger and Wang, 2015). The (Anderson-Rubin) 95% confidence intervals presented in brackets are weak-IV-robust ones obtained using the Stata command *weakiv* (Finlay *et al.*, 2013).

Falsification Exercise

Table C.10: *Falsification Exercise*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(LEB), 1930-1940					
Change in Predicted Mortality	-0.017	-0.048	-0.041*	-0.046	-0.047**
	(0.034)	(0.069)	(0.022)	(0.045)	(0.020)
	[-0.086,0.051]	[-0.187,0.091]	[-0.086,0.004]	[-0.136,0.044]	[-0.088,-0.007]
Adjusted R^2	-0.014	0.005	0.030	0.014	0.053
Countries	51	40	52	52	52
Number of Clusters	49	40	50	50	50
B. Dependent Variable: Change in Ln(LEB), 1900-1940					
Change in Predicted Mortality	0.210**	0.135	0.076	0.102	0.120
	(0.090)	(0.136)	(0.072)	(0.119)	(0.075)
	[0.03,0.389]	[-0.139,0.409]	[-0.069,0.221]	[-0.136,0.341]	[-0.029,0.27]
Adjusted R^2	0.055	-0.001	-0.005	-0.002	0.020
Countries	61	49	62	62	62
Number of Clusters	59	49	60	60	60
C. Dependent Variable: Change in Ln(Population), 1900-1940					
Change in Predicted Mortality	-0.199	-0.124	-0.040	-0.193	-0.046
	(0.182)	(0.131)	(0.176)	(0.150)	(0.146)
	[-0.564,0.166]	[-0.388,0.141]	[-0.393,0.313]	[-0.493,0.108]	[-0.339,0.247]
Adjusted R^2	0.008	-0.017	-0.019	0.001	-0.018
Countries	50	44	51	51	51
Number of Clusters	50	44	51	51	51
D. Dependent Variable: Change in Ln(GDP), 1900-1940					
Change in Predicted Mortality	0.010	0.213	0.240	0.300	0.280**
	(0.260)	(0.329)	(0.144)	(0.298)	(0.137)
	[-0.518,0.538]	[-0.458,0.883]	[-0.052,0.532]	[-0.306,0.905]	[0.001,0.558]
Adjusted R^2	-0.030	-0.023	0.001	-0.005	0.020
Countries	35	32	35	35	35
Number of Clusters	35	32	35	35	35
E. Dependent Variable: Change in Ln(GDP per capita), 1900-1940					
Change in Predicted Mortality	0.038	0.281	0.221**	0.368	0.266**
	(0.191)	(0.251)	(0.099)	(0.221)	(0.110)
	[-0.35,0.426]	[-0.231,0.793]	[0.021,0.421]	[-0.08,0.817]	[0.043,0.489]
Adjusted R^2	-0.028	-0.001	0.020	0.042	0.054
Countries	36	32	36	36	36
Number of Clusters	36	32	36	36	36

Notes: To be in the sample countries need to have non-missing data on disease-specific mortality rates for at least 10 out of the 13 infectious diseases under consideration. Additionally, it is required that pneumonia and tuberculosis (all forms) have non-missing values. Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Figures in brackets are 95% confidence intervals based on cluster-robust estimates of the variance matrix.

C.2 Additional Figures

C.2.1 First-Stage Figure

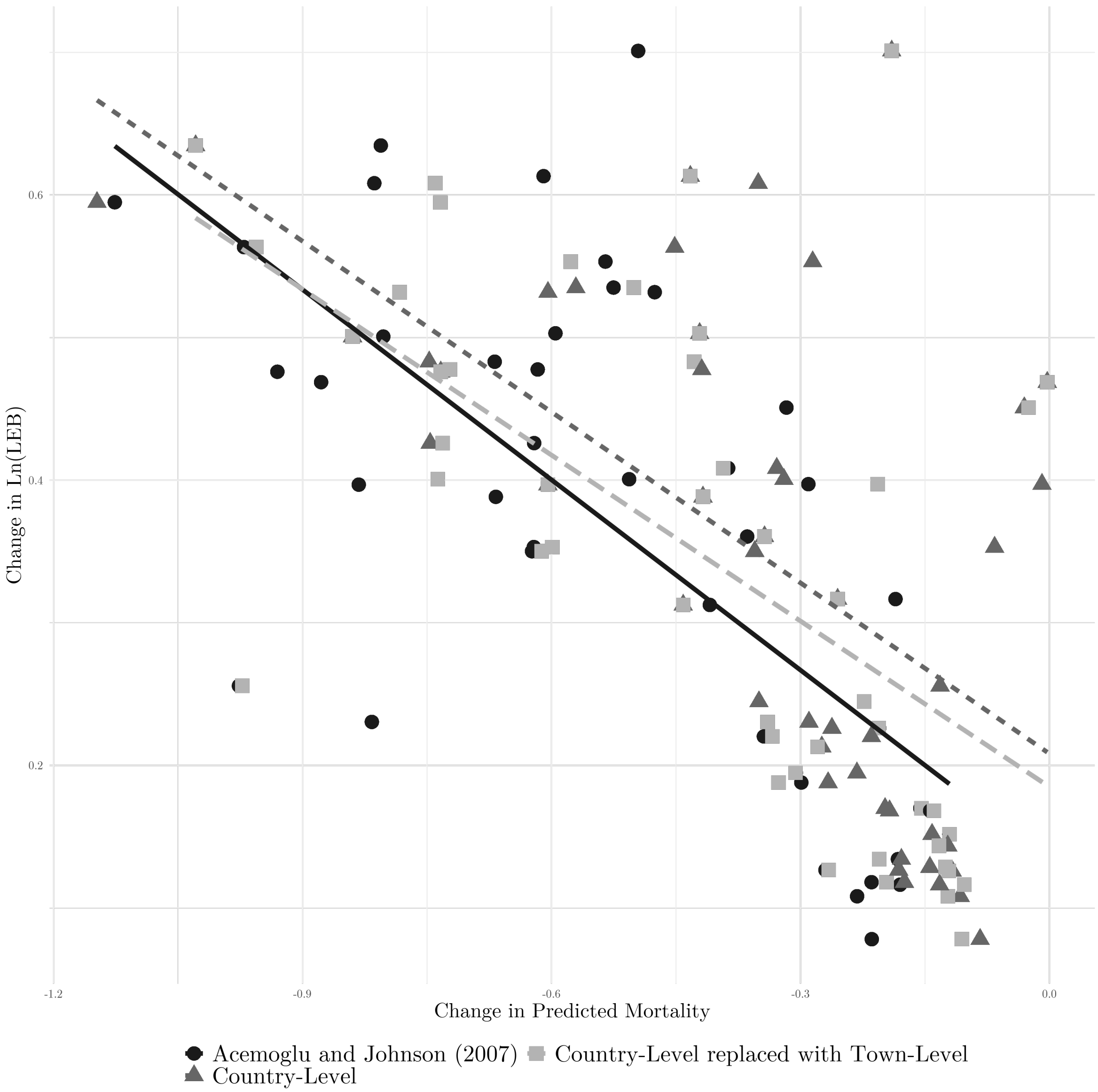
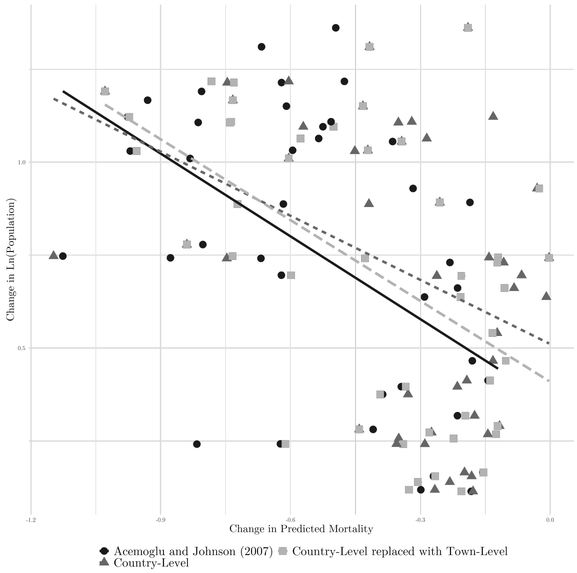


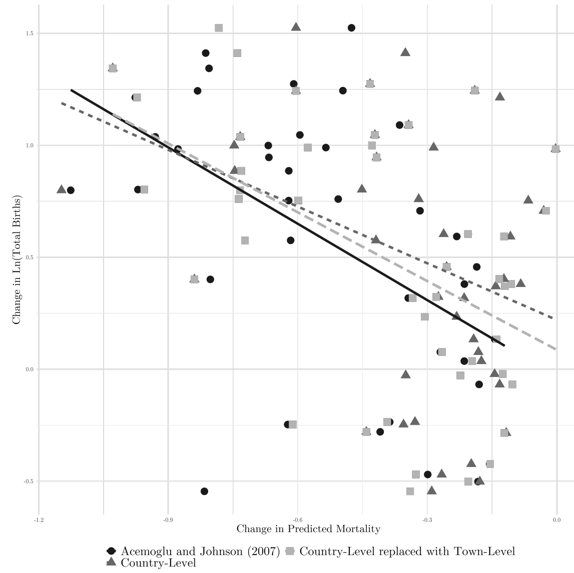
Figure C.1: *First-Stage Estimates - 1940-1980*

Notes: Outcome variables and change in predicted mortality, 1940-1980, are depicted for three different definitions of the predicted mortality instrument for the baseline sample of 47 countries in Acemoglu and Johnson (2007): (i) the original data as provided by Acemoglu and Johnson (2007) (black dots); (ii) the revised predicted mortality rate instrument for only country-level sources (grey triangles); (iii) the revised predicted mortality rate instrument for country-level sources replaced with town-level data (light grey squares). The corresponding linear projections are (i) black solid line, (ii) grey short-dashed line, and (iii) long-dashed light-grey line.

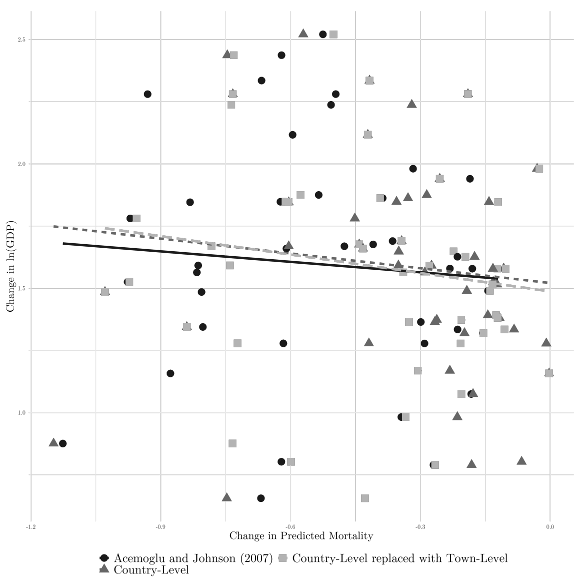
C.2.2 Reduced-Form Figures



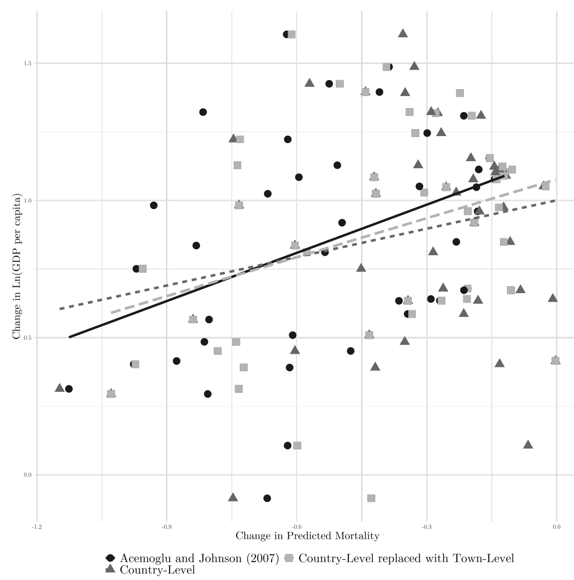
(a) Change in Ln(Population)



(b) Change in Ln(Total Births)



(c) Change in Ln(GDP)



(d) Change in Ln(GDP per capita)

Figure C.2: *Reduced-Form Estimates*
1940-1980 - Acemoglu and Johnson (2007)

Notes: Outcome variables and change in predicted mortality, 1940-1980, are depicted for three different definitions of the predicted mortality instrument for the baseline sample of 47 countries in Acemoglu and Johnson (2007): (i) the original data as provided by Acemoglu and Johnson (2007) (black dots); (ii) the revised predicted mortality rate instrument for only country-level sources (grey triangles); (iii) the revised predicted mortality rate instrument for country-level sources replaced with town-level data (light grey squares). The corresponding linear projections are (i) black solid line, (ii) grey short-dashed line, and (iii) long-dashed light-grey line.

C.2.3 Falsification Exercise

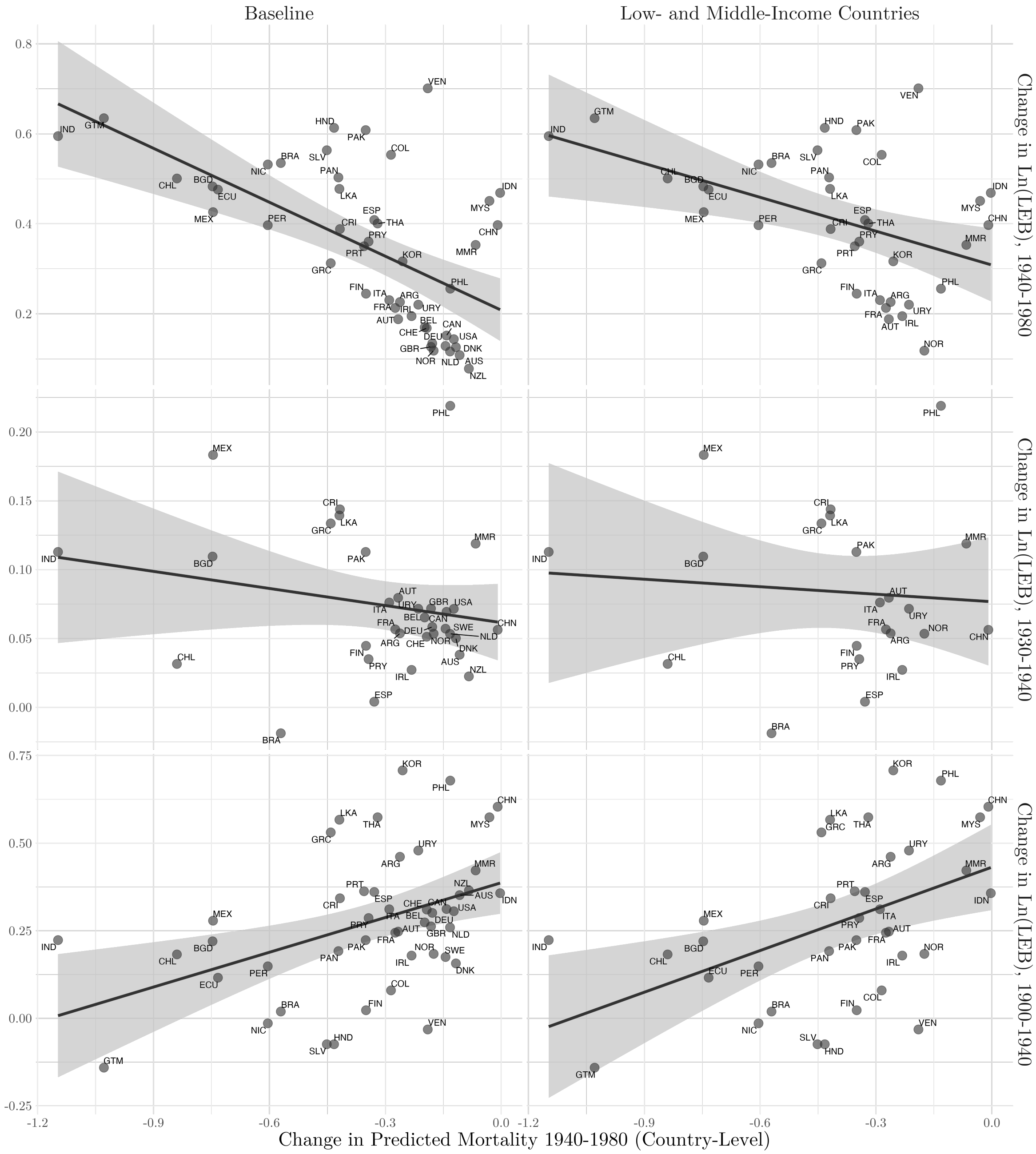


Figure C.3: *Falsification Exercise - Life Expectancy at Birth*

Notes: Outcome variables and change in predicted mortality, 1940-1980, are depicted using the refined predicted mortality instrument on the country level for the baseline sample (left column) and for low- and middle-income countries (right column) in Acemoglu and Johnson (2007).

C.3 Data Appendix

C.3.1 Population Data Before 1950

We collect historical data on population sizes from various publications. Table C.11 presents an overview of the sources we consulted for each country (Column 3), the years covered in the respective source (Column 2) and the category we assigned the source to. Note that if not stated otherwise in Table C.11, we use population data for 1950 provided by the UN's World Population Prospects 2019 (see UNDESA, 2019a).[1] For the three cases in our data set where we have more than one source for a year we apply the following "preference ordering" of categories when selecting the reference source:[2]

$$\text{DYB} \succ \text{CENSUS} \succ \text{BIO} \succ \text{IHS} \succ \text{ARTICLE} \sim \text{BOOK} \succ \text{UN}$$

We base the ordering on the objective to have population data consistent with country boundaries in the mortality rate data set. DYB is the preferred source as it was published by the UN, the successor institution of the League of Nations (LoN)–the main source for mortality rates besides the International Vital Statistics (IVS). Since both, LoN and IVS, generally rely on census information (CENSUS) for the calculation of their mortality rates, census information is the preferred source after DYB, followed by the US Biostatistics (BIO) and the International Historical Statistics (IHS). To ensure the best possible consistency of boundaries with the mortality data, we rank historical articles or books over the UN World Population Prospects 2019 (UN).

To obtain yearly population numbers for the period of interest 1930-1946, we rely on linear inter- and extrapolation. We use the Stata command *ipolate* for this purpose. The applied method assumes a linear trend ("even-paced change") in population size over the

[1] The source is not explicitly listed in C.11 to conserve space.

[2] In our data set there are 64 such instances.

interpolation period. Formally:

$$X_t^x = \frac{kX_{t-s}^x + sX_{t+k}^x}{k+s}, \tag{C.1}$$

where X is the population size, t is the reference year, and we have data from s years before the reference year and k years after the reference year ($s < t < k$). When our population data does not cover the entire period of interest from 1930 to 1946, we resort to extrapolation:[3]

$$X_t^x = \frac{pX_{t+k}^x - kX_{t+p}^x}{k-p} \times (-1), \tag{C.2}$$

where p and k constitute years after (or before) the reference year with $t < p < k$. Note that extrapolation plays a negligible role in our study, as we use only the mortality rate closest to the reference year stated in Acemoglu and Johnson (2007) (see Section 3.2 and C.3.3 for more details).

Table C.11: *Sources of Population Size for Calculation of Mortality Rates*

Country	Years	Source	Category
Albania	1930, 1945	Mitchell (2007b)	IHS
Algeria	1936, 1948	Mitchell (2007a)	IHS
	1940	UN (1949)	DYB
Angola	1940	Mitchell (2007a)	IHS
Antigua	1921, 1946	Mitchell (2007c)	IHS
	1914	UN (1949)	DYB
Argentina	1914, 1947	Mitchell (2007c)	IHS
	1933	UN (1949)	DYB
Australia	1933, 1947	Mitchell (2007a)	IHS

[3]We do not consider population data after 1955 for interpolation.

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
	1939	UN (1949)	DYB
Austria	1934, 1951	Mitchell (2007b)	IHS
	1951	Mitchell (2007a)	IHS
Bangladesh	1931, 1941	Yeatts (1943)	CENSUS
Bahamas	1931, 1943	Mitchell (2007c)	IHS
Bahrain	1941	Mitchell (2007a)	IHS
Barbados	1921, 1946	Mitchell (2007c)	IHS
	1930	UN (1949)	DYB
Belgium	1930, 1947	Mitchell (2007b)	IHS
Belize	1931, 1946	Mitchell (2007c)	IHS
Bermuda	1939	Mitchell (2007c)	IHS
Bolivia	1900, 1950	Mitchell (2007c)	IHS
Botswana	1936, 1946	Mitchell (2007a)	IHS
	1940	UN (1949)	DYB
	1940	Mitchell (2007c)	IHS
Brazil	1934-1941	USDOC and USCB and USOIAA (1945c)	BIO
British Virgin Islands	1921, 1946	Mitchell (2007c)	IHS
Brunei	1931, 1947	Mitchell (2007a)	IHS
Bulgaria	1934, 1946	Mitchell (2007b)	IHS
Cambodia	1958	Mitchell (2007a)	IHS

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
Cambodia (French Indo-China)	1937	Robequain (1944)	BOOK
Cameroon (British)	1931, 1952	Mitchell (2007a)	IHS
Cameroon (French)	1931, 1946	Mitchell (2007a)	IHS
	1931, 1941	Mitchell (2007c)	IHS
	1931	StatCan (1936)	CENSUS
Canada	1941, 1954	StatCan (1953)	CENSUS
	1931	StatCan (1936)	CENSUS
	1941, 1951	StatCan (1953)	CENSUS
Canada (Excluding Yukon, N.w.t)	1941	UN (1949)	DYB
Canada (Newfoundland)	1935, 1945	Mitchell (2007c)	IHS
	1940	UN (1949)	DYB
Cape Verde	1940	Mitchell (2007a)	IHS
Cayman Islands	1921, 1943	Mitchell (2007c)	IHS
Central African Republic	1936	Mitchell (2007a)	IHS
Chad	1936	Mitchell (2007a)	IHS
	1940	UN (1949)	DYB
Chile	1940	Mitchell (2007c)	IHS
	1911, 1933	Xu *et al.* (2017)	ARTICLE
China	1953	Mitchell (2007a)	IHS

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
China (Shanghai Total)	1930-1937, 1940, 1942, 1943, 1945-1950	Henriot *et al.* (2018)	BOOK
China (Shanghai Foreign Settlements)	1930-1943	Henriot *et al.* (2018)	BOOK
China (Shanghai French Concession)	1930-1943	Henriot *et al.* (2018)	BOOK
China (Shanghai International Settlement)	1921-1944	Henriot *et al.* (2018)	BOOK
China (Shanghai International Settlement Foreign)	1921-1944	Henriot *et al.* (2018)	BOOK
China (Shanghai International Settlement Chinese)	1922-1944	Henriot *et al.* (2018)	BOOK
China (Shanghai Chinese Municipality)	1930-1937, 1940, 1942, 1943, 1945-1950	Henriot *et al.* (2018)	BOOK
	1938	UN (1949)	DYB
Colombia	1938	Mitchell (2007c)	IHS
Cook Islands	1936, 1945	Mitchell (2007a)	IHS
Congo Rep.	1936	Mitchell (2007a)	IHS

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
	1927	UN (1949)	DYB
Costa Rica	1927	Mitchell (2007c)	IHS
	1931, 1943	Mitchell (2007c)	IHS
	1943	UN (1949)	DYB
Cuba	1940	USDOC and USCB and USOIAA (1945d)	BIO
Cyprus	1931, 1946	Mitchell (2007a)	IHS
Czech	1921, 1930, 1938	Šprocha and Fialová (2018)	ARTICLE
Czech Republic (Czechoslovakia)	1930, 1946	Mitchell (2007b)	IHS
Czech Republic (Sudetenland)	1933, 1939	Statistisches Reichsamt (1943)	CENSUS
Slovak Republic	1921, 1930, 1938	Šprocha and Fialová (2018)	ARTICLE
	1940	Mitchell (2007b)	IHS
Denmark	1945	UN (1949)	DYB
Dominica	1921, 1946	Mitchell (2007c)	IHS
Dominican Republic	1935	Mitchell (2007c)	IHS
East Timor	1935, 1950	Mitchell (2007a)	IHS

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
	1938, 1942	Dirección Nacional de Estadística (1944)	CENSUS
Ecuador	1950	Mitchell (2007c)	IHS
	1937	UN (1949)	DYB
Egypt, Arab Rep.	1937, 1947	Mitchell (2007a)	IHS
	1930	UN (1949)	DYB
El Salvador	1930	Mitchell (2007c)	IHS
Estonia	1934	Mitchell (2007b)	IHS
Equatorial Guinea	1932, 1942	Mitchell (2007a)	IHS
Eritrea	1931	Mitchell (2007a)	IHS
Ethiopia	1956	Mitchell (2007a)	IHS
Faeroe Islands	1945	UN (1949)	DYB
Falkland Islands/Malvinas	1931, 1946	Mitchell (2007c)	IHS
Fiji	1936, 1946	Mitchell (2007a)	IHS
	1940	UN (1949)	DYB
Finland	1940	Mitchell (2007b)	IHS
	1936	UN (1949)	DYB
France	1936, 1946	Mitchell (2007b)	IHS
French Polynesia	1936, 1946	Mitchell (2007a)	IHS
French Guiana	1936, 1946	Mitchell (2007c)	IHS
Gabon	1936	Mitchell (2007a)	IHS

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
Gambia	1931	Mitchell (2007a)	IHS
	1925	Statistisches Reichsamt (1928)	CENSUS
	1933	Statistisches Reichsamt (1934)	CENSUS
	1939	UN (1949)	DYB
Germany (Altreich)	1939	Mitchell (2007b)	IHS
Ghana	1931, 1948	Mitchell (2007a)	IHS
Gilbert And Ellice Islands	1931, 1947	Mitchell (2007a)	IHS
Grenada	1921, 1946	Mitchell (2007c)	IHS
	1940	UN (1949)	DYB
Greece	1940	Mitchell (2007b)	IHS
Guadalupe	1936	Mitchell (2007c)	IHS
	1940	UN (1949)	DYB
Guam	1940	Mitchell (2007a)	IHS
	1940	UN (1949)	DYB
Guatemala	1940	Mitchell (2007c)	IHS
Guinea-Bissau	1940	Mitchell (2007a)	IHS
Guyana	1931, 1946	Mitchell (2007c)	IHS
	1918	USDOC and USCB and USOIAA (1945f)	BIO
Haiti	1950, 1971	Mitchell (2007c)	IHS

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
	1940	Mitchell (2007c)	IHS
Honduras	1945	UN (1949)	DYB
	1931	UN (1951)	DYB
Hong Kong, China	1931	Mitchell (2007a)	IHS
Hungary	1930, 1941	Mitchell (2007b)	IHS
	1940	UN (1949)	DYB
Iceland	1940	Mitchell (2007b)	IHS
Ireland (Republic)	1936, 1946	Mitchell (2007b)	IHS
India	1931, 1941	Yeatts (1943)	CENSUS
	1931	UN (1949)	DYB
India (British India)	1931, 1941	Mitchell (2007a)	IHS
	1931	Hutton (1933)	CENSUS
India (Portuguese Settlements)	1940	Mitchell (2007a)	IHS
	1921	Marten (1923)	CENSUS
	1931	Hutton (1933)	CENSUS
India (French Settlements)	1948	Fifield (1950)	ARTICLE
	1920, 1940	CICRED (1974)	BOOK
Indonesia	1930	Mitchell (2007a)	IHS
Indonesia (Java And Madura)	1920, 1930, 1940	CICRED (1974)	BOOK
Indonesia (Sumatra)	1920, 1930	CICRED (1974)	BOOK

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
Iraq	1947	Mitchell (2007a)	IHS
	1936	Mitchell (2007b)	IHS
Ireland	1941	UN (1949)	DYB
Israel (Palestine)	1931	Mitchell (2007a)	IHS
Israel (Jewish Population)	1948	Mitchell (2007a)	IHS
	1936	UN (1949)	DYB
Italy	1936, 1951	Mitchell (2007b)	IHS
Jamaica	1921, 1943	Mitchell (2007c)	IHS
	1940	UN (1949)	DYB
Japan	1940	Mitchell (2007a)	IHS
Jordan	1952	Mitchell (2007a)	IHS
Kenya	1931, 1949	Mitchell (2007a)	IHS
	1940	Mitchell (2007a)	IHS
Korea	1930, 1940,1944	KOSIS (2017)	CENSUS
South Korea	1949	Mitchell (2007a)	IHS
	1985	Mitchell (2007a)	IHS
Lao Pdr	1937	Robequain (1944)	BOOK
Latvia	1935	Mitchell (2007b)	IHS
	1942	WHO (1951)	LON
Lebanon	1970	Mitchell (2007a)	IHS
Lesotho	1936, 1946	Mitchell (2007a)	IHS

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
Libya	1936	Mitchell (2007a)	IHS
Lithuania	1923	Mitchell (2007b)	IHS
	1935	UN (1949)	DYB
Luxembourg	1935, 1947	Mitchell (2007b)	IHS
Macao	1940	Mitchell (2007a)	IHS
Madagascar	1931	Mitchell (2007a)	IHS
Malawi	1931, 1945	Mitchell (2007a)	IHS
Malaysia	1931	UN (1949)	DYB
Malaysia (Sabah)	1931, 1951	Mitchell (2007a)	IHS
Malaysia (Sarawak)	1947	Mitchell (2007a)	IHS
Malaysia (Federation Of Malaya)	1921, 1931, 1947	Del Tufo (1949)	CENSUS
Maldives	1931, 1946	Mitchell (2007a)	IHS
Martinique	1936	Mitchell (2007c)	IHS
	1931	UN (1949)	DYB
Mauritius	1931, 1944	Mitchell (2007a)	IHS
	1940	UN (1949)	DYB
Mexico	1940	Mitchell (2007c)	IHS
Montserrat	1921, 1946	Mitchell (2007c)	IHS
Morocco (French Protectorate)	1936, 1947	Mitchell (2007a)	IHS

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
Morocco (Spanish Protectorate)	1940	Mitchell (2007a)	IHS
	1945	WHO (1951)	LON
Mozambique	1940	UN (1949)	DYB
	1940	Mitchell (2007a)	IHS
Myanmar	1931	UN (1949)	DYB
	1931, 1941	Mitchell (2007a)	IHS
Namibia	1936	UN (1949)	DYB
	1921, 1946	Mitchell (2007a)	IHS
Nepal	1952	Mitchell (2007a)	IHS
Netherlands	1930	UN (1949)	DYB
	1940	Mitchell (2007b)	IHS
Netherlands Antilles	1930	Mitchell (2007c)	IHS
New Zealand	1936, 1945	Mitchell (2007a)	IHS
Nicaragua	1940	UN (1949)	DYB
	1940	Mitchell (2007c)	IHS
Nigeria	1931, 1952	Mitchell (2007a)	IHS
Nigeria (Including British Cameroons)	1931	Arnett (1933)	ARTICLE
	1953	Trewartha and Zelinsky (1954)	ARTICLE

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
	1930	UN (1949)	DYB
Norway	1930, 1946	Mitchell (2007b)	IHS
Pacific Islands	1940	Mitchell (2007a)	IHS
	1951	Mitchell (2007a)	IHS
Paksitan	1931, 1941	Yeatts (1943)	CENSUS
	1940	UN (1949)	DYB
	1940	Mitchell (2007c)	IHS
Panama	1930-1943	USDOC and USCB and USOIAA (1945h)	BIO
	1940	Mitchell (2007c)	IHS
Panama (Canal Zone)	1930,1940,1950	USDOC and USCB and USOIAA (1945h)	BIO
Panama (Canal Zone Including Colon And Panama)	1930-1943	USDOC and USCB and USOIAA (1945h)	BIO
Paraguay	1936, 1950	Mitchell (2007c)	IHS
Paraguay (Biodemographic Districts)	1938-1942	USDOC and USCB and USOIAA (1944g)	BIO
	1940	UN (1949)	DYB
Peru	1940	Mitchell (2007c)	IHS
	1939	UN (1949)	DYB
Philippines	1939, 1948	Mitchell (2007a)	IHS

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
Poland	1931, 1946	Mitchell (2007b)	IHS
	1940	UN (1949)	DYB
Portugal	1940	Mitchell (2007b)	IHS
	1940	UN (1949)	DYB
Puerto Rico	1940	Mitchell (2007c)	IHS
Reunion	1954	Mitchell (2007a)	IHS
Romania	1930, 1941	Mitchell (2007b)	IHS
Ussr	1939, 1959	Mitchell (2007b)	IHS
	1940	UN (1949)	DYB
Sao Tome And Principe	1940	Mitchell (2007a)	IHS
Samoa (American)	1940	Mitchell (2007a)	IHS
Samoa (Western)	1936, 1945	Mitchell (2007a)	IHS
Serbia	1910	Mitchell (2007b)	IHS
Seychelles	1931, 1947	Mitchell (2007a)	IHS
Sierra Leone	1931	Mitchell (2007a)	IHS
	1947	Mitchell (2007a)	IHS
Singapore	1921, 1931, 1947	Del Tufo (1949)	CENSUS
Solomon Islands	1931	Mitchell (2007a)	IHS
South Africa	1936, 1946	Mitchell (2007a)	IHS
	1940	UN (1949)	DYB
Spain	1940	Mitchell (2007b)	IHS

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
	1931, 1946	Mitchell (2007a)	IHS
Sri Lanka	1946	UN (1949)	DYB
St. Helena	1931, 1946	Mitchell (2007a)	IHS
St. Kitts, Nevis And Anguilla	1921, 1946	Mitchell (2007c)	IHS
St. Lucia	1921, 1946	Mitchell (2007c)	IHS
St. Vincent	1931, 1946	Mitchell (2007c)	IHS
	1940	Lamur (1973)	CENSUS
Suriname	1921, 1950	Mitchell (2007c)	IHS
Swaziland	1936, 1946	Mitchell (2007a)	IHS
	1940	Mitchell (2007b)	IHS
Sweden	1945	UN (1949)	DYB
	1930, 1940	Mitchell (2007b)	IHS
Switzerland	1941	UN (1949)	DYB
Syrian Arab. Rep.	1946	Mitchell (2007a)	IHS
Tanzania (Tangynakia)	1931, 1948	Mitchell (2007a)	IHS
Tanzania (Zanzibar)	1931, 1950	Mitchell (2007a)	IHS
Taiwan	1940	Mitchell (2007a)	IHS
	1937	UN (1951)	DYB
Thailand	1937, 1947	Mitchell (2007a)	IHS
Togo	1958	Mitchell (2007a)	IHS

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
Tonga	1939, 1956	Mitchell (2007a)	IHS
Trinidad And Tobago	1931, 1946	Mitchell (2007c)	IHS
Tunisia	1936, 1946	Mitchell (2007a)	IHS
	1940	Mitchell (2007a)	IHS
Turkey	1935	UN (1949)	DYB
Turks And Caicos Islands	1921, 1943	Mitchell (2007c)	IHS
Uganda	1931, 1948	Mitchell (2007a)	IHS
	1931	UN (1949)	DYB
United Kingdom (England And Wales)	1931, 1951	Mitchell (2007b)	IHS
	1931	UN (1949)	DYB
United Kingdom (Scotland)	1931, 1951	Mitchell (2007b)	IHS
	1937	UN (1949)	DYB
United Kingdom (Northern Ireland)	1937, 1951	Mitchell (2007b)	IHS
	1930, 1950	USCB (1952)	CENSUS
	1940	UN (1949)	DYB
United States (Mainland)	1940	Mitchell (2007c)	IHS
	1930, 1950	USCB (1952)	CENSUS
	1940	UN (1949)	DYB
United States (Hawaii)	1940	Mitchell (2007c)	IHS

Table C.11: *Sources of Population Size for Calculation of Mortality Rates (continued)*

Country	Years	Source	Category
	1929, 1950	USCB (1952)	CENSUS
	1939	UN (1949)	DYB
United States (Alaska)	1939	Mitchell (2007c)	IHS
Uruguay	1908	Mitchell (2007c)	IHS
	1941	UN (1949)	DYB
Venezuela, Rb	1936, 1941	Mitchell (2007c)	IHS
	1960	Mitchell (2007a)	IHS
Vietnam	1937	Robequain (1944)	BOOK
	1940	UN (1949)	DYB
Virgin Islands (U.s.)	1940	Mitchell (2007c)	IHS
	1931	UN (1949)	DYB
Yugoslavia	1931, 1948	Mitchell (2007b)	IHS
Zambia	1931, 1950	Mitchell (2007a)	IHS
Zimbabwe	1931	Mitchell (2007a)	IHS

C.3.2 The Special Cases of British India and French Indo-China

We digitize information on population size for 1931 and 1941 at the district level for British India from the Census of India, 1941 (Yeatts, 1943, XVI p.116-137). The granularity of the data and the consistency of administrative boundaries allows us to calculate the historic population size within the current country boundaries of Bangladesh, India, and Pakistan (with the exception of Kashmir and Jammu).[4] For partitioned provinces or states we calculate the *population share* in the respective contemporary country (see Table C.12 for more details).[5] We multiply the *population shares* with the number of deaths in the province or state to approximate the number of deaths in the provincial part of the contemporary country. We do so since disease-specific mortality data for British India is only available at the province or state level in LNHO (1939) and WHO (1952), not at the district level. We subsequently approximate the country-level mortality rate for each disease by summing the number of deaths attributed to a country and dividing the sum by the population in the respective provinces and/or states with non-missing data on disease-specific deaths (times 100,000). The omission of provinces and/or states without information on deaths by disease safeguards against introducing a severe downward bias in the calculated mortality rates. We believe that the outlined procedure provides the best possible approximation of the *true* mortality rates in Bangladesh, India, and Pakistan.

A similar strategy is applied in the case of French Indo-China. We retrieve population numbers for Cambodia, Lao PDR, and Vietnam for 1937 from Robequain (1944) and for 1950 from the UN World Population Prospects 2019.[6] Yearly population shares for the three countries are subsequently used to attribute the number of deaths by disease in French Indo-China in WHO (1952) to the respective contemporary country. The estimated mortality rate for each country can hence be thought of as a weighted average of the mortality rate for French Indo-China.

[4]We exclude Kashmir and Jammu from our analysis due to their contested borders between three countries: China, India, and Pakistan. Information on the number of deaths by disease is only available for Kashmir and Jammu State in the case of typhus fever for the period 1935-1937. The omission of the region, therefore, possesses only a negligible effect on the predicted mortality instrument of India and Pakistan.

[5]The population shares are linearly interpolated for the period 1931-1941 and extrapolated for the period 1941-1946 in accordance with the population size (see Section C.3.1 for more details).

[6]Using numbers from Robequain (1944), the population of Vietnam is calculated as the sum of Cochin China, Annam, and Tonkin.

Table C.12: *Districts in Partitioned Provinces or States of British India and their Contemporary Country Membership*

Province or State	District	Country (Contemporary)
	Burdwan	India
	Birbhum	India
	Bankura	India
	Midnapur	India
	Hooghly	India
	Howrah	India
	24-Parganas	India
	Calcutta	India
	Nadia	India
	Murshidabad	India
	Jessore	Bangladesh
	Khulna	Bangladesh
	Rajshahi	Bangladesh
	Dinajpur	Bangladesh
	Jalpaiguri	India
	Darjeling	India
	Rangpur	Bangladesh
	Bogra	Bangladesh
	Pabna	Bangladesh
	Malda	India
	Dacca	Bangladesh
	Mymensingh	Bangladesh
	Faridpur	Bangladesh
	Bakaraganj	Bangladesh
	Tippera	Bangladesh
	Noakhali	Bangladesh
	Chittagong	Bangladesh
Bengal	Chitt Hill Tracts	Bangladesh

Table C.12: *Districts in Partitioned Provinces or States of British India and their Contemporary Country Membership (continued)*

Province or State	District	Country (Contemporary)
	Hissar	India
	Rohtak	India
	Gurgaon	India
	Karnal	India
	Ambala	India
	Simla	India
	Kangra	India
	Hoshiarpur	India
	Jullundur	India
	Ludhina	India
	Ferozepore	India
	Lahore	Pakistan
	Amritsar	India
	Gurdaspur	India
	Sialkot	Pakistan
	Gujranwala	Pakistan
	Sheikhupura	Pakistan
	Gujrat	Pakistan
	Shahpur	Pakistan
	Jhelum	Pakistan
	Rawalpindi	Pakistan
	Attock	Pakistan
	Mianwali	Pakistan
	Montgomery	Pakistan
	Lyallpur	Pakistan
	Jhang	Pakistan
	Multan	Pakistan
	Muzzaffargarh	Pakistan
	Dera Gazi Khan	Pakistan
Punjab	Biloch Transfrontier Tract	Pakistan

Table C.12: *Districts in Partitioned Provinces or States of British India and their Contemporary Country Membership (continued)*

Province or State	District	Country (Contemporary)
	Cachar	India
	Sylhet	Bangladesh
	Khasi and Jaintia Hills (British)	India
	Naga Hills	India
	Lushai Hills	India
	Goalppara	India
	Kamrup	India
	Darrang	India
	Nowgong	India
	Sibsagar	India
	Lakhimpur	India
	Garo Hills	India
	Sadiya Frontier Tract	India
Assam	Baliparara Frontier Tract	India
	Dujana	India
	Pataudi	India
	Loharu	India
	Mandi	India
	Suket	India
	Kapurthala	India
	Malerkotla	India
	Faridkot	India
	Chamba	India
	Patiala	India
	Jind	India
	Nabha	India
	Bahawalpur	Pakistan
Punjab State	Khairpur	Pakistan

C.3.3 The "Country-Level" Predicted Mortality Instrument

We apply the following preference ordering to select the preferred *country-level* source for each disease $d \in D$:

i The mortality rate in the referenced source stated in Acemoglu and Johnson (2007) is given priority, i.e. "IVS Rate" "LoN V1 Rate".

ii If no observation for *(i)* is available, we use the mortality rate calculated from the no. of deaths ("No. Deaths") in the reference source.

iii If no observation for *(i)*-*(ii)* is available, we consult the non-referenced source of Acemoglu and Johnson (2007) (either IVS or LoN V1 "Rate")

iv If no observation for *(i)*-*(iii)* is available, we use the mortality rate calculated from the no. of deaths ("No. Deaths") in the respective source.

v If no observation for *(i)*-*(iv)* is available, we use the rate calculated from no. of deaths in LoN V2.

vi If no observation for *(i)*-*(v)* is available, we consult the US biostatistics rate ("BioStat Rate").

vii If no observation for *(i)*-*(vi)* is available, we use the mortality rate constructed from the no of deaths in the US biostatistics ("BioStat No Deaths").

viii If no observation for *(i)*-*(vii)* is available, the *country-level* mortality rate for disease d is set to missing.

See also Section 3.2 for more information on the construction of the final predicted mortality instruments.

C.3.4 Mortality Rates by Country - Baseline Sample

The following tables present for the 47 countries in the baseline sample of Acemoglu and Johnson (2007) the mortality rates of the 13 infectious diseases in Acemoglu and Johnson (2007), the re-digitized mortality rates of referenced sources in Acemoglu and Johnson (2007), digitized mortality rates from all available sources and calculated mortality rates. Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source or calculated from the stated number of deaths using our collected population data, respectively. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information ("All"), excluding *aggregates of towns* when averaging ("Excl. Agg."), and additionally excluding years when not all towns have information available ("Excl. Agg & Miss."). We refer to *aggregates of towns* when the original data represents a mortality rate for more than one town (e.g. "126 Engl. Towns" in WHO, 1951). Last, we present only the average across town aggregates ("Agg. Only"). The number in parentheses after the published predicted mortality instrument in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 for the authors' data. Data for the period 1935-1937 is drawn from the League of Nation's "Annual Epidemiological report for the Year 1937" (LNHO, 1939) and after from LoN V2, respectively LoN V1 for town-level data.

Table C.13: *Argentina - IVS 1936*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**3**	**7.6**	7.3	-	-	-	5.8†	5.8†	5.8†	-	7.6	7.3
Plague	**0.1**	**0.1**	0.1	-	-	0†	-	-	-	-	0.1	0.1
Scarlet Fever	**0.6**	**0.5**	0.5	-	-	-	0.7†	0.7†	0.6†	-	0.5	0.5
Whooping Cough	**0.7**	**4.1**	3.9	-	-	-	2.9†	2.9†	2.9†	-	4.1	3.9
Diphtheria	**6.7**	**8.8**	8.3	-	-	-	7.5†	7.5†	7.5†	-	8.8	8.3
Tuberculosis (all forms)	**99.4**	**110.2**	104.7	-	-	-	104.8†	104.8†	104.8†	-	110.2	104.7
Malaria	**2**	**1.2**	1.1	-	-	-	-	-	-	-	1.2	1.1
Influenza	**6.4**	**10.8**	10.2	-	-	-	3.5†	3.5†	3.5†	-	10.8	10.2
Smallpox	**0**	**1.3**	1.2	-	-	0†	-	-	-	-	1.3	1.2
Measles	**0.4**	**1.6**	1.5	-	-	-	0.4†	0.4†	0.4†	-	1.6	1.5
Typhus Fever	**0**	**0**	0	-	-	-	-	-	-	-	0	0
Pneumonia and Bronchopneumonia	**76.1**	**115.9**	110.1	-	-	-	77.6†	77.6†	77.6†	-	115.9	110.1
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**205.2 (195.3)**	**262.1**	249	-	-	0	203	203	203.1	-	262.1	249
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**3**	**7.6**	7.3	-	-	-	3	3	3	-	7.8	7.4
Plague	**0.1**	**0.1**	0.1	-	-	0.3	-	-	-	-	0.1	0.1
Scarlet Fever	**0.6**	**0.5**	0.5	-	-	-	0.4	0.4	0.4	-	0.6	0.6
Whooping Cough	**0.7**	**4.1**	3.9	-	-	-	1.9	1.9	1.9	-	5.8	5.6
Diphtheria	**6.7**	**8.8**	8.3	-	-	-	4.7	4.7	4.7	-	9.9	9.5
Tuberculosis (all forms)	**99.4**	**110.2**	104.7	-	-	-	94	94	94	-	111.1	105.7
Malaria	**2**	**1.2**	1.1	-	-	-	-	-	-	-	1.2	1.2
Influenza	**6.4**	**10.8**	10.2	-	-	-	3.4	3.4	3.4	-	16.9	16.1
Smallpox	**0**	**1.3**	1.2	-	-	0.1	-	-	-	-	0.8	0.7
Measles	**0.4**	**1.6**	1.5	-	-	-	0.5	0.5	0.5	-	3.2	3.1
Typhus Fever	**0**	**0**	0	-	-	-	-	-	-	-	0	0
Pneumonia and Bronchopneumonia	**76.1**	**115.9**	110.1	-	-	-	67.2	67.2	67.2	-	144.2	137.3
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**205.2 (195.3)**	**262.1**	249	-	-	0.3	175.1	175.1	175.1	-	301.6	287.1

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Plague (1939), Smallpox (1939)

LoN Town All: Typhoid and Paratyphoid Fevers (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Tuberculosis (all forms) (1939), Influenza (1939), Measles (1939), Pneumonia and Bronchopneumonia (1939)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Tuberculosis (all forms) (1939), Influenza (1939), Measles (1939), Pneumonia and Bronchopneumonia (1939)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Tuberculosis (all forms) (1939), Influenza (1939), Measles (1939), Pneumonia and Bronchopneumonia (1939)

Table C.14: *Australia - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0.2**	**0.4**	0.4	0.4	0.4	0.3	0.2	0.2	0.2	-	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.4**	**0.5**	0.5	0.5	0.5	0.5	0.4	0.4	0.4	-	-	-
Whooping Cough	**6.4**	**3.8**	3.7	3.8	3.7	3.7	6.4	6.4	6.4	-	-	-
Diphtheria	**2**	**2.6**	2.6	2.6	2.6	2.6	2	2	2	-	-	-
Tuberculosis (all forms)	**93.4**	**36.6**	36.2	36.5	36.2	-	46.7	46.7	46.7	-	-	-
Malaria	**0.2**	**0.1**	0.1	0.1	0.1	0.1	-	-	-	-	-	-
Influenza	**3.3**	**5**	5	5	5	4.9	3.3	3.3	3.3	-	-	-
Smallpox	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Measles	**0.2**	**1.8**	1.8	1.8	1.8	1.8	0.2	0.2	0.2	-	-	-
Typhus Fever	**0**	**0.1**	0.1	0.1	0.1	0.1	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**125.7**	**56.7**	56.1	56.6	56.1	-	62.8	62.8	62.8	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**231.8 (231.8)**	**107.6**	106.5	107.4	106.5	14	122	122	122.1	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0.2**	**0.5**	0.5	0.4	0.4	0.3	0.3	0.3	0.3	-	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.4**	**0.6**	0.6	0.4	0.4	0.4	0.3	0.3	0.3	-	-	-
Whooping Cough	**6.4**	**3.3**	3.3	2.1	2.1	2	2	2	2	-	-	-
Diphtheria	**2**	**3.2**	3.2	3.3	3.3	3.2	2.4	2.4	2.4	-	-	-
Tuberculosis (all forms)	**93.4**	**35.8**	35.5	36	35.7	-	46	46	46	-	-	-
Malaria	**0.2**	**0.2**	0.2	0.2	0.2	0.2	-	-	-	-	-	-
Influenza	**3.3**	**5.6**	5.5	5.9	5.8	5.4	3.5	3.5	3.5	-	-	-
Smallpox	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Measles	**0.2**	**1.6**	1.6	1.3	1.3	1.4	0.9	0.9	0.9	-	-	-
Typhus Fever	**0**	**0.2**	0.1	0.1	0.1	0.1	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**125.7**	**57.9**	57.3	56.1	55.6	-	61.3	61.3	61.3	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**231.8 (231.8)**	**108.9**	107.8	105.7	104.8	13	116.8	116.8	116.8	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.15: *Austria - IVS 1938*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**1.3**	**1.8**	1.8	1.8	1.8	3.2†	1.3†	1.3†	1.3†	-	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**1.6**	**1.3**	1.3	1.3	1.3	2.4†	3.6†	3.6†	3.6†	-	-	-
Whooping Cough	**2.5**	**0.6**	0.6	0.6	0.6	3.1†	0.3†	0.3†	0.3†	-	-	-
Diphtheria	**4.3**	**10.8**	11	10.9	11	15.1†	9.6†	9.6†	9.6†	-	-	-
Tuberculosis (all forms)	**143**	**99**	100.4	99.2	100.4	-	122.3†	122.3†	122.3†	-	-	-
Malaria	**0**	**0**	0	0	0	0.1†	-	-	-	-	-	-
Influenza	**11.1**	**9.5**	9.6	9.5	9.6	25.1†	7.4†	7.4†	7.4†	-	-	-
Smallpox	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Measles	**0**	**0.1**	0.1	0.1	0.1	-	0.6†	0.6†	0.6†	-	-	-
Typhus Fever	**0**	**0**	0	0	0	0†	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**135.2**	**143.6**	145.4	143.7	145.4	-	181.3†	181.3†	181.3†	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**299 (299)**	**266.7**	270.1	267.1	270.1	48.9	326.4	326.4	326.4	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**1.3**	**1.8**	1.8	6.7	6.8	7.4	8.8	8.8	8.8	-	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**1.6**	**1.3**	1.3	3.5	3.6	3.9	7	7	7	-	-	-
Whooping Cough	**2.5**	**0.6**	0.6	3.3	3.4	3.8	2.9	2.9	2.9	-	-	-
Diphtheria	**4.3**	**10.8**	11	15.4	15.9	16.5	14.1	14.1	14.1	-	-	-
Tuberculosis (all forms)	**143**	**99**	100.4	108.4	112.3	-	172.1	172.1	172.1	-	-	-
Malaria	**0**	**0**	0	0.1	0.1	0.1	-	-	-	-	-	-
Influenza	**11.1**	**9.5**	9.6	14.6	15.3	16	9.4	9.4	9.4	-	-	-
Smallpox	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Measles	**0**	**0.1**	0.1	2.5	2.5	-	2	2	2	-	-	-
Typhus Fever	**0**	**0**	0	1.1	1.1	1.2	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**135.2**	**143.6**	145.4	111	115.3	-	128.7	128.7	128.7	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**299 (299)**	**266.7**	270.1	266.5	276.3	48.9	345	345	345	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Malaria (1939), Influenza (1939), Typhus Fever (1939)

LoN Town All: Typhoid and Paratyphoid Fevers (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Tuberculosis (all forms) (1939), Influenza (1939), Measles (1939), Pneumonia and Bronchopneumonia (1939)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Tuberculosis (all forms) (1939), Influenza (1939), Measles (1939), Pneumonia and Bronchopneumonia (1939)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Tuberculosis (all forms) (1939), Influenza (1939), Measles (1939), Pneumonia and Bronchopneumonia (1939)

Table C.16: *Bangladesh - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**50.8**	-	-	-	-	**16**†	**50.8**	50.8	50.8	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**2.7**†	**0**	0	0	-	-	-
Diphtheria	**3.2**	-	-	-	-	**1**†	**3.2**	3.2	3.2	-	-	-
Tuberculosis (all forms)	**156.2**	-	-	-	-	-	**156.2**	156.2	156.2	-	-	-
Malaria	**73.7**	-	-	-	-	**663.8**†	**62.3**†	62.3†	62.3†	-	-	-
Influenza	**16.1**	-	-	-	-	**4.4**†	**16.1**	16.1	16.1	-	-	-
Smallpox	**57.2**	-	-	-	-	**9.8**	-	-	-	-	-	-
Measles	**11.8**	-	-	-	-	**8.7**†	**11.8**	11.8	11.8	-	-	-
Typhus Fever	-	-	-	-	-	**5**†	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**112.9**	-	-	-	-	-	**112.9**	112.9	112.9	-	-	-
Cholera	**26.4**	-	-	-	-	**36**	-	-	-	-	-	-
Predicted Mortality	**668.4 (508.3)**	-	-	-	-	**747.3**	**413.3**	413.3	413.3	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**50.8**	-	-	-	-	**15.7**	**53.8**	53.8	53.8	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**2.5**	**0.2**	0.2	0.2	-	-	-
Diphtheria	**3.2**	-	-	-	-	**0.9**	**4.2**	4.2	4.2	-	-	-
Tuberculosis (all forms)	**156.2**	-	-	-	-	-	**129.2**	129.2	129.2	-	-	-
Malaria	**73.7**	-	-	-	-	**636.4**	**56.1**	56.1	56.1	-	-	-
Influenza	**16.1**	-	-	-	-	**4.9**	**11**	11	11	-	-	-
Smallpox	**57.2**	-	-	-	-	**45.1**	-	-	-	-	-	-
Measles	**11.8**	-	-	-	-	**7.7**	**8.4**	8.4	8.4	-	-	-
Typhus Fever	-	-	-	-	-	**3.9**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**112.9**	-	-	-	-	-	**120.9**	120.9	120.9	-	-	-
Cholera	**26.4**	-	-	-	-	**98.7**	-	-	-	-	-	-
Predicted Mortality	**668.4 (508.3)**	-	-	-	-	**815.7**	**383.6**	383.6	383.6	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1937), Whooping Cough (1937), Diphtheria (1937), Malaria (1937), Influenza (1937), Measles (1937), Typhus Fever (1937)

LoN Town All: Malaria (1937)

LoN Town Excl. Agg.: Malaria (1937)

LoN Town Excl. Agg. & Miss.: Malaria (1937)

Table C.17: *Belgium - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**2.7**	**1.2**	1.2	1.2	1.2	1.2	1.4	1.4	1.4	-	-	-
Plague	**0**	**-**	-	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.3**	**1.2**	1.2	1.2	1.2	1.2	0.3	0.3	0.3	-	-	-
Whooping Cough	**1.2**	**4.1**	4	4	4	4	1.2	1.2	1.2	-	-	-
Diphtheria	**2**	**4.9**	4.8	4.8	4.8	4.8	2	2	2	-	-	-
Tuberculosis (all forms)	**73.5**	**69**	68.6	68.3	68.6	-	73.5	73.5	73.5	-	-	-
Malaria	**0**	**0.1**	0.1	0.1	0.1	0.1	-	-	-	-	-	-
Influenza	**5.9**	**24.8**	24.6	24.5	24.6	24.6	5.9	5.9	5.9	-	-	-
Smallpox	**0**	**-**	-	0	0	0	-	-	-	-	-	-
Measles	**1.3**	**2.8**	2.7	2.7	2.7	2.7	1.3	1.3	1.3	-	-	-
Typhus Fever	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**68.7**	**90**	89.5	89.1	89.5	-	68.7	68.7	68.7	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**155.6 (155.6)**	**198.1**	196.8	195.9	196.8	38.6	154.2	154.2	154.2	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**2.7**	**1.3**	1.3	1.3	1.3	1.3	1.5	1.5	1.7	-	-	-
Plague	**0**	**-**	-	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.3**	**0.9**	0.9	0.9	0.9	0.9	0.4	0.4	0.3	-	-	-
Whooping Cough	**1.2**	**3.5**	3.5	4.2	4.2	4.1	1.9	1.9	2.1	-	-	-
Diphtheria	**2**	**6.1**	5.9	6.7	6.7	6.7	4.8	4.8	4.7	-	-	-
Tuberculosis (all forms)	**73.5**	**75.3**	74.3	78	77.7	-	91	91	88.5	-	-	-
Malaria	**0**	**0.1**	0.1	0.1	0.1	0.1	-	-	-	-	-	-
Influenza	**5.9**	**22.6**	22.3	23.4	23.3	23.6	7.8	7.8	8.8	-	-	-
Smallpox	**0**	**-**	-	0	0	0	-	-	-	-	-	-
Measles	**1.3**	**1.8**	1.7	1.9	1.9	1.8	1	1	1	-	-	-
Typhus Fever	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**68.7**	**83.9**	82.8	80.6	80.4	-	80.3	80.3	75.3	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**155.6 (155.6)**	**195.6**	192.8	197.1	196.5	38.5	188.7	188.7	182.4	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.18: *Brazil (21 Towns) - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**8.4**	**10.3**	-	-	-	-	8.4	7.2	7.2	10.7	-	-
Plague	**0**	**0**	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0.1**	**0.2**	-	-	-	-	0.1	0.1	0.1	0.2	-	-
Whooping Cough	**8.6**	**8.6**	-	-	-	-	8.6	8.6	8.6	8.6	-	-
Diphtheria	**6.9**	**6.8**	-	-	-	-	6.9	6.9	6.9	6.8	-	-
Tuberculosis (all forms)	**244.5**	**272.6**	-	-	-	-	244.5	229.9	229.9	273.7	-	-
Malaria	**55**	**39.8**	-	-	-	-	-	-	-	-	-	-
Influenza	**39.4**	**43.3**	-	-	-	-	39.4	36.8	36.8	44.5	-	-
Smallpox	**0**	**0.2**	-	-	-	-	-	-	-	-	-	-
Measles	**9.1**	**9.3**	-	-	-	-	9.1	8.9	8.9	9.4	-	-
Typhus Fever	**0.6**	**0.6**	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**143.3**	**178.9**	-	-	-	-	143.3	144.2	144.2	141.3	-	-
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**525.2 (515.8)**	**570.6**	-	-	-	-	460.2	442.6	442.6	495.2	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**8.4**	**10.4**	-	-	-	-	7.8	6.3	6.3	10.8	-	-
Plague	**0**	**0**	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0.1**	**0.1**	-	-	-	-	0.1	0.1	0.1	0.1	-	-
Whooping Cough	**8.6**	**9.8**	-	-	-	-	12	12.2	12.2	11.8	-	-
Diphtheria	**6.9**	**6.2**	-	-	-	-	6.1	6	6	6.2	-	-
Tuberculosis (all forms)	**244.5**	**282**	-	-	-	-	250.1	234.9	234.9	280.4	-	-
Malaria	**55**	**37.5**	-	-	-	-	-	-	-	-	-	-
Influenza	**39.4**	**49.5**	-	-	-	-	41.7	38.5	38.5	48.2	-	-
Smallpox	**0**	**0.4**	-	-	-	-	-	-	-	-	-	-
Measles	**9.1**	**11.9**	-	-	-	-	10.3	10	10	11	-	-
Typhus Fever	**0.6**	**0.4**	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**143.3**	**168.8**	-	-	-	-	150.2	152.2	152.2	146.3	-	-
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**525.2 (515.8)**	**577.1**	-	-	-	-	478.3	460.2	460.2	514.7	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.19: *Canada (Excluding Yukon And N.w.t) - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0.6**	**2**	2	2	2	0.1	0.5	0.6	0.6	-	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.7**	**1.1**	1.1	1.1	1.1	1.1	0.7	0.7	0.7	-	-	-
Whooping Cough	**3.6**	**5.5**	5.5	5.5	5.5	5.5	3.6	3.6	3.6	-	-	-
Diphtheria	**0.3**	**1.9**	1.9	1.9	1.9	1.9	0.3	0.3	0.3	-	-	-
Tuberculosis (all forms)	**50.3**	**51**	50.9	51	50.9	-	50.3	50.3	50.3	-	-	-
Malaria	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Influenza	**12.5**	**24.5**	24.5	24.6	24.5	24.5	12.5	12.5	12.5	-	-	-
Smallpox	**0.2**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**0.2**	**1.5**	1.5	1.5	1.5	1.5	0.2	0.2	0.2	-	-	-
Typhus Fever	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**52.3**	**54**	53.9	54	53.9	-	52.3	52.3	52.3	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**120.6 (120.6)**	**141.5**	141.3	141.6	141.3	34.6	120.4	120.4	120.4	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0.6**	**1.5**	1.5	1.3	1.3	0.1	0.5	0.5	0.5	-	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.7**	**1**	1	1.1	1	0.9	0.5	0.5	0.5	-	-	-
Whooping Cough	**3.6**	**4.2**	4.1	3.9	3.9	3.9	1.6	1.6	1.6	-	-	-
Diphtheria	**0.3**	**2.2**	2.2	2.5	2.4	2.3	1.3	1.3	1.3	-	-	-
Tuberculosis (all forms)	**50.3**	**49.4**	49	50.7	50.3	-	51.1	51.1	51.1	-	-	-
Malaria	**0**	**0.1**	0	0	0	0	-	-	-	-	-	-
Influenza	**12.5**	**20**	19.9	19	18.8	18.5	9.6	9.6	9.6	-	-	-
Smallpox	**0.2**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**0.2**	**1.8**	1.7	1.7	1.7	1.7	0.7	0.7	0.7	-	-	-
Typhus Fever	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**52.3**	**51.8**	51.4	52.9	52.5	-	47.9	47.9	47.9	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**120.6 (120.6)**	**132.1**	131.1	133.1	132.1	27.4	113.2	113.2	113.2	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.20: *Chile - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	**17.3**	17.3	17.3	17.3	17.3	-	-	-	-	-	-
Plague	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Scarlet Fever	**0**	**1**	1	1	1	1	-	-	-	-	-	-
Whooping Cough	**0**	**43.6**	43.6	43.8	43.6	43.6	-	-	-	-	-	-
Diphtheria	**0**	**3**	3	3	3	3	-	-	-	-	-	-
Tuberculosis (all forms)	**262**	**260.1**	260.1	261	260.1	-	-	-	-	-	-	-
Malaria	**0.4**	**0.4**	0.4	0.4	0.4	0.4	-	-	-	-	-	-
Influenza	**136**	**107.7**	107.7	108.1	107.7	107.7	-	-	-	-	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**0**	**10.4**	10.4	10.4	10.4	10.4	-	-	-	-	-	-
Typhus Fever	**1.9**	**1.9**	1.9	1.9	1.9	1.9	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**394.2**	**394.2**	394.2	395.5	394.2	-	-	-	-	-	-	-
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**802.6 (794.5)**	**839.6**	839.6	842.4	839.6	185.3	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	**14.7**	14.5	14.3	13.8	14	-	-	-	-	-	-
Plague	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Scarlet Fever	**0**	**0.8**	0.8	1.1	1.1	0.9	-	-	-	-	-	-
Whooping Cough	**0**	**27.5**	27.3	25.7	25	24.5	-	-	-	-	-	-
Diphtheria	**0**	**3.8**	3.7	4.1	4	4	-	-	-	-	-	-
Tuberculosis (all forms)	**262**	**257.9**	253.8	252.3	244	-	-	-	-	-	-	-
Malaria	**0.4**	**0.3**	0.3	0.2	0.2	0.2	-	-	-	-	-	-
Influenza	**136**	**85.4**	84.4	77.4	76.3	65.5	-	-	-	-	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**0**	**12.7**	12.5	10.6	10.4	9.5	-	-	-	-	-	-
Typhus Fever	**1.9**	**1.7**	1.7	2.3	2.3	2.3	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**394.2**	**386.9**	380.7	385	373.7	-	-	-	-	-	-	-
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**802.6 (794.5)**	**791.7**	779.7	773	750.7	120.8	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.21: *China - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.1**	**60.6**	-	-	-	-	-
Plague	-	-	-	-	-	**0.6**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	**0.3**	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	**0.4**	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	**4.7**	-	-	-	-	-
Tuberculosis (all forms)	**105**	-	-	-	-	-	**98.3**	-	-	-	-	-
Malaria	**0**	-	-	-	-	-	**1.1**	-	-	-	-	-
Influenza	**6.3**	-	-	-	-	-	**4**	-	-	-	-	-
Smallpox	**10.7**	-	-	-	-	**0.1**	**0.2**	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**3.6**	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0**	**6**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**158.5**	-	-	-	-	-	**27.1**†	-	-	-	-	-
Cholera	**8.3**	-	-	-	-	**8.3**	-	-	-	-	-	-
Predicted Mortality	**290.5 (288.8)**	-	-	-	-	**9**	**206.3**	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.1**	**45.7**	-	-	-	-	-
Plague	-	-	-	-	-	**0.4**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	**0.3**	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	**0.3**	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	**3.4**	-	-	-	-	-
Tuberculosis (all forms)	**105**	-	-	-	-	-	**106.8**	-	-	-	-	-
Malaria	**0**	-	-	-	-	-	**1.2**	-	-	-	-	-
Influenza	**6.3**	-	-	-	-	-	**2.1**	-	-	-	-	-
Smallpox	**10.7**	-	-	-	-	**0.2**	**2.6**	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**6.8**	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0.1**	**4.1**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**158.5**	-	-	-	-	-	**27.1**	-	-	-	-	-
Cholera	**8.3**	-	-	-	-	**2.3**	-	-	-	-	-	-
Predicted Mortality	**290.5 (288.8)**	-	-	-	-	**3.1**	**200.3**	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Country-level mortality rates for China exclude the region of Shanghai, which is included in the town average. Data on number of deaths by disease for Shanghai is taken from LON V2 or in the case of tuberculosis and pneumonia from Henriot et al. (2018). Mortality rates for Shanghai before 1943 refer to the International Settlement except for pneumonia which refers to the French Concession.

†LoN Town All: Pneumonia and Bronchopneumonia (1937)

Table C.22: *Colombia - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**22**	**27.3**	27.1	-	-	-	22	22	22	-	27.2	27.1
Plague	**0**	**0**	0	-	-	-	-	-	-	-	0†	0†
Scarlet Fever	**0**	**0.1**	0.1	-	-	-	0	0	0	-	0.1	0.1
Whooping Cough	**49**	**25.2**	25	-	-	-	49	49	49	-	25.1	25
Diphtheria	**13.1**	**2.4**	2.3	-	-	-	13.1	13.1	13.1	-	2.4	2.3
Tuberculosis (all forms)	**156.3**	**45.1**	44.8	-	-	-	156.3	156.3	156.3	-	45	44.8
Malaria	**3**	**52.6**	52.1	-	-	-	-	-	-	-	52.3	52.1
Influenza	**27**	**3.1**	3.1	-	-	-	27	27	27	-	3.1	3.1
Smallpox	**0**	**1.8**	1.8	-	-	1.8	-	-	-	-	1.8	1.8
Measles	**18.1**	**4.3**	4.2	-	-	-	18.1	18.1	18.1	-	4.3	4.2
Typhus Fever	**0.4**	**0.4**	0.4	-	-	-	-	-	-	-	0.4	0.4
Pneumonia and Bronchopneumonia	**236.5**	**123**	121.8	-	-	-	236.5	236.5	236.5	-	122.4	121.8
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**535 (525.4)**	**285.3**	282.7	-	-	1.8	522	522	522	-	284.1	282.7
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**22**	**27.3**	27.1	-	-	-	24.1	24.1	24.1	-	29.6	30.2
Plague	**0**	**0**	0	-	-	-	-	-	-	-	0	0
Scarlet Fever	**0**	**0.1**	0.1	-	-	-	0.1	0.1	0.1	-	0.2	0.2
Whooping Cough	**49**	**25.2**	25	-	-	-	43.7	43.7	43.7	-	36.3	37
Diphtheria	**13.1**	**2.4**	2.3	-	-	-	16.8	16.8	16.8	-	2.7	2.8
Tuberculosis (all forms)	**156.3**	**45.1**	44.8	-	-	-	127.8	127.8	127.8	-	45.5	46.4
Malaria	**3**	**52.6**	52.1	-	-	-	-	-	-	-	62.6	64
Influenza	**27**	**3.1**	3.1	-	-	-	20.6	20.6	20.6	-	21.2	22.1
Smallpox	**0**	**1.8**	1.8	-	-	2.5	-	-	-	-	3.9	4
Measles	**18.1**	**4.3**	4.2	-	-	-	28.4	28.4	28.4	-	12.2	12.4
Typhus Fever	**0.4**	**0.4**	0.4	-	-	-	-	-	-	-	0.2	0.2
Pneumonia and Bronchopneumonia	**236.5**	**123**	121.8	-	-	-	249.2	249.2	249.2	-	141.8	144.5
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**535 (525.4)**	**285.3**	282.7	-	-	2.5	510.7	510.7	510.7	-	356.1	363.7

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†BioStat Rate: Plague (1939)
BioStat No. Deaths: Plague (1939)

Table C.23: *Costa Rica - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	**9.8**	8.7	-	-	8.7	-	-	-	-	-	-
Plague	**0**	**0**	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	**0.2**	0.1	-	-	0.1	-	-	-	-	-	-
Whooping Cough	**0**	**72.5**	64.4	-	-	64.4	-	-	-	-	72.5	64.4
Diphtheria	**0**	**5.8**	5.1	-	-	5.1	-	-	-	-	-	-
Tuberculosis (all forms)	**92.6**	**72.7**	64.5	-	-	-	-	-	-	-	72.7	64.5
Malaria	**73**	**139.8**	124	-	-	124	-	-	-	-	139.9	124.1
Influenza	**33.2**	**6.2**	5.5	-	-	5.5	-	-	-	-	6.1	5.4
Smallpox	**0**	**0**	0	-	-	0	-	-	-	-	-	-
Measles	**0**	**0**	0	-	-	0	-	-	-	-	-	-
Typhus Fever	**0.2**	**0.2**	0.1	-	-	0.1	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**458.2**	**110.3**	97.9	-	-	-	-	-	-	-	110.4	97.9
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**667 (657.2)**	**417.5**	370.4	-	-	208	-	-	-	-	401.6	356.3
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	**10.4**	9.1	-	-	8.4	-	-	-	-	-	-
Plague	**0**	**0**	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	**0.6**	0.5	-	-	0.3	-	-	-	-	-	-
Whooping Cough	**0**	**42.7**	37.9	-	-	24.2	-	-	-	-	43.1	39.4
Diphtheria	**0**	**6.3**	5.6	-	-	5	-	-	-	-	-	-
Tuberculosis (all forms)	**92.6**	**73.5**	65	-	-	-	-	-	-	-	83.9	76.5
Malaria	**73**	**158.9**	140.3	-	-	124.4	-	-	-	-	99.2	90
Influenza	**33.2**	**10.2**	9	-	-	13.2	-	-	-	-	14.5	13.3
Smallpox	**0**	**0.1**	0.1	-	-	0	-	-	-	-	-	-
Measles	**0**	**63**	55.5	-	-	14.5	-	-	-	-	-	-
Typhus Fever	**0.2**	**0.1**	0.1	-	-	0.1	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**458.2**	**113.8**	100.6	-	-	-	-	-	-	-	113.6	103.3
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**667 (657.2)**	**479.5**	423.6	-	-	190.3	-	-	-	-	354.2	322.5

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.24: *Denmark - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	**0.2**	0.2	0.2	0.2	0.2	0	0	0	-	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.7**	**0.8**	0.8	0.8	0.8	0.8	0.7	0.7	0.7	-	-	-
Whooping Cough	**2.3**	**2.7**	2.7	2.7	2.7	2.7	2.3	2.3	2.3	-	-	-
Diphtheria	**0.7**	**1.1**	1.1	1.1	1.1	1.1	0.7	0.7	0.7	-	-	-
Tuberculosis (all forms)	**48.8**	**35.3**	35.3	35.5	35.3	-	48.8	48.8	48.8	-	-	-
Malaria	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Influenza	**6.9**	**15.4**	15.4	15.5	15.4	15.4	6.9	6.9	6.9	-	-	-
Smallpox	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Measles	**1.6**	**0.8**	0.8	0.8	0.8	0.8	1.6	1.6	1.6	-	-	-
Typhus Fever	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**60.4**	**60.9**	60.9	41.1	60.9	-	60.4	60.4	60.4	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**121.4 (121.4)**	**117.2**	117.3	97.7	117.3	21	121.4	121.4	121.4	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	**0.2**	0.2	0.3	0.3	0.3	0.2	0.2	0.2	-	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.7**	**1.3**	1.3	1.2	1.1	1.1	0.8	0.8	0.8	-	-	-
Whooping Cough	**2.3**	**2.6**	2.6	3.3	3.3	3.4	2.2	2.2	2.2	-	-	-
Diphtheria	**0.7**	**3.8**	3.8	3.1	3.1	3.3	3.7	3.7	3.7	-	-	-
Tuberculosis (all forms)	**48.8**	**34.2**	34.2	34.7	34.7	-	48.4	48.4	48.4	-	-	-
Malaria	**0**	**0.1**	0	0	0	0	-	-	-	-	-	-
Influenza	**6.9**	**10.6**	10.6	7.4	7.4	7.1	3.6	3.6	3.6	-	-	-
Smallpox	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Measles	**1.6**	**0.7**	0.7	1.1	1.1	0.8	0.7	0.7	0.7	-	-	-
Typhus Fever	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**60.4**	**57.8**	57.7	58.4	60.6	-	47.3	47.3	47.3	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**121.4 (121.4)**	**111.2**	111	109.5	111.6	16.1	107	107	107	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.25: *Ecuador - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	13.5	13.5
Plague	-	-	-	-	-	**1.7**	-	-	-	-	0.1†	0.1†
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	236.9	239.7
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**264**	-	-	-	-	-	-	-	-	-	86.1	87.1
Malaria	**45.2**	-	-	-	-	-	-	-	-	-	161	162.8
Influenza	**44.6**	-	-	-	-	-	-	-	-	-	70.2	71
Smallpox	**7**	-	-	-	-	-	-	-	-	-	0.3†	0.3†
Measles	**0**	-	-	-	-	-	-	-	-	-	27	27.3
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**559.4**	-	-	-	-	-	-	-	-	-	136.7	138.3
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**930.2 (920.2)**	-	-	-	-	**1.7**	-	-	-	-	731.8	740.2
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	16.7	16.1
Plague	-	-	-	-	-	**1.5**	-	-	-	-	3.4	3.2
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	158.7	154.3
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**264**	-	-	-	-	-	-	-	-	-	80.3	78
Malaria	**45.2**	-	-	-	-	-	-	-	-	-	154.8	150.8
Influenza	**44.6**	-	-	-	-	-	-	-	-	-	91.8	88.5
Smallpox	**7**	-	-	-	-	-	-	-	-	-	2.7	2.5
Measles	**0**	-	-	-	-	-	-	-	-	-	47.8	45.8
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**559.4**	-	-	-	-	-	-	-	-	-	148.7	143.8
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**930.2 (920.2)**	-	-	-	-	**1.5**	-	-	-	-	704.7	683

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†BioStat Rate: Plague (1941), Smallpox (1939)
BioStat No. Deaths: Plague (1941), Smallpox (1939)

Table C.26: *El Salvador - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**12.2**	**3.4**	3.3	3.4	3.3	3.3	12.2	12.2	12.2	-	3.4	3.3
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0**	**0.2**	0.2	0.2	0.2	-	0	0	0	-	0.2	0.2
Whooping Cough	**15**	**30.6**	30.1	31	30.1	-	15	15	15	-	30.6	30.1
Diphtheria	**13.1**	**2.2**	2.2	2.3	2.2	2.2	13.1	13.1	13.1	-	2.2	2.2
Tuberculosis (all forms)	**340.3**	**39**	38.4	39.5	38.4	-	340.3	340.3	340.3	-	39	38.4
Malaria	**190.8**	**186**	183	188.2	183	183	-	-	-	-	186	183
Influenza	**0.9**	**25.4**	25	25.8	25	25	0.9	0.9	0.9	-	25.4	25
Smallpox	**0**	**0.1**	0.1	0.1	0.1	0.1	-	-	-	-	0.1	0.1
Measles	**55.3**	**70.9**	69.7	71.7	69.7	69.7	55.3	55.3	55.3	-	70.9	69.7
Typhus Fever	**0.1**	**0.1**	0.1	0.1	0.1	0.1	-	-	-	-	0.1	0.1
Pneumonia and Bronchopneumonia	**332.8**	**93.6**	92.1	94.7	92.1	-	332.8	332.8	332.8	-	93.6	92.1
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**970.4 (960.5)**	**451.5**	444.3	457	444.3	283.4	769.6	769.6	769.6	-	451.5	444.3
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**12.2**	**3**	3	3.2	3.1	3.1	11.9	11.9	11.9	-	3	3
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0**	**0.2**	0.2	0.2	0.1	-	0.1	0.1	0.1	-	0.2	0.2
Whooping Cough	**15**	**39.3**	38.7	35.8	34.8	-	17.9	17.9	17.9	-	47.2	46.5
Diphtheria	**13.1**	**2.2**	2.2	2.2	2.1	2.1	15.5	15.5	15.5	-	2.2	2.2
Tuberculosis (all forms)	**340.3**	**41.2**	40.5	43.5	42.3	-	363.9	363.9	363.9	-	43	42.9
Malaria	**190.8**	**215.5**	211.7	198.9	193.7	193.7	-	-	-	-	241.9	236.1
Influenza	**0.9**	**24**	23.7	37.4	36.4	36.4	10.7	10.7	10.7	-	37.2	36.7
Smallpox	**0**	**0.1**	0.1	0.1	0.1	0.1	-	-	-	-	1.5	1.4
Measles	**55.3**	**83**	81.6	51.6	50.2	50.2	40.2	40.2	40.2	-	33.7	33.1
Typhus Fever	**0.1**	**0.1**	0.1	0.1	0.1	0.1	-	-	-	-	0	0
Pneumonia and Bronchopneumonia	**332.8**	**94.8**	93.2	88.8	86.5	-	299.5	299.5	299.5	-	87.2	85.9
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**970.4 (960.5)**	**503.5**	494.8	461.6	449.4	285.7	759.8	759.8	759.8	-	497.1	488

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.27: *Finland - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0.9**	**3.9**	4.1	4.1	4.1	4.1	0.9	0.9	0.9	-	-	-
Plague	**0**	**-**	-	0	0	-	-	-	-	-	-	-
Scarlet Fever	**1.3**	**2.9**	3.1	3.1	3.1	3.1	1.3	1.3	1.3	-	-	-
Whooping Cough	**1.3**	**11.7**	12.3	12.3	12.3	12.3	1.3	1.3	1.3	-	-	-
Diphtheria	**1.9**	**11.1**	11.7	11.7	11.7	11.7	1.9	1.9	1.9	-	-	-
Tuberculosis (all forms)	**167.4**	**201.7**	212.2	212.1	212.2	-	167.4	167.4	167.4	-	-	-
Malaria	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Influenza	**4.7**	**23.6**	24.8	24.8	24.8	24.8	4.7	4.7	4.7	-	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**0**	**3.9**	4.1	4.1	4.1	4.1	0	0	0	-	-	-
Typhus Fever	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**45.9**	**91.2**	95.9	95.8	95.9	-	45.9	45.9	45.9	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**223.4 (223.4)**	**350**	368.2	368	368.2	60.1	223.4	223.4	223.4	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0.9**	**3.9**	4.1	4.6	4.6	4.9	1.9	1.9	1.9	-	-	-
Plague	**0**	**-**	-	0	0	-	-	-	-	-	-	-
Scarlet Fever	**1.3**	**2.9**	3.1	2.2	2.1	2.1	1.7	1.7	1.7	-	-	-
Whooping Cough	**1.3**	**11.7**	12.3	7.7	7.7	7.3	1.6	1.6	1.6	-	-	-
Diphtheria	**1.9**	**11.1**	11.7	14.7	14.5	15.4	7.5	7.5	7.5	-	-	-
Tuberculosis (all forms)	**167.4**	**201.7**	212.2	197.3	195.8	-	167.9	167.9	167.9	-	-	-
Malaria	**0**	**0**	0	0.1	0	0	-	-	-	-	-	-
Influenza	**4.7**	**23.6**	24.8	11.9	11.9	10	3.5	3.5	3.5	-	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**0**	**3.9**	4.1	2.4	2.3	2.6	0.5	0.5	0.5	-	-	-
Typhus Fever	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**45.9**	**91.2**	95.9	77.8	77.3	-	69.6	69.6	69.6	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**223.4 (223.4)**	**350**	368.2	318.7	316.3	42.4	254.1	254.1	254.1	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.28: *France - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0.7**	**2.6**	2.2	2.6	2.2	2.2	0.7	0.7	2.7†	-	-	-
Plague	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Scarlet Fever	**0.4**	**0.3**	0.2	0.3	0.2	0.2	0.4	0.4	0.3†	-	-	-
Whooping Cough	**1.1**	**2.1**	1.8	2.1	1.8	1.8	1.1	1.1	5.2†	-	-	-
Diphtheria	**3.7**	**3.9**	3.3	3.9	3.3	3.3	3.7	3.7	3.6†	-	-	-
Tuberculosis (all forms)	**93.4**	**136.7**	116.3	136.7	116.3	-	93.4	93.4	164.9†	-	-	-
Malaria	**0**	**0.2**	0.2	0.2	0.2	0.2	-	-	-	-	-	-
Influenza	**18.9**	**29.7**	25.3	29.7	25.3	25.3	18.9	18.9	3†	-	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**2.8**	**1.1**	1	1.1	1	1	2.8	2.8	3.2†	-	-	-
Typhus Fever	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**158.2**	**97.7**	83.1	97.7	83.1	-	158.2	158.2	135.6†	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**279.2 (279.2)**	**274.3**	233.4	274.3	233.4	33.9	279.2	279.2	318.5	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0.7**	**3.3**	2.7	3.4	2.6	1.2	2	2	2.4	-	-	-
Plague	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Scarlet Fever	**0.4**	**0.3**	0.2	0.4	0.3	0.3	0.5	0.5	0.5	-	-	-
Whooping Cough	**1.1**	**2.2**	1.8	2.3	1.8	1.8	2.3	2.3	2.6	-	-	-
Diphtheria	**3.7**	**4.8**	3.9	6.3	4.8	4.8	3.8	3.8	4.2	-	-	-
Tuberculosis (all forms)	**93.4**	**145.2**	118.3	133.2	102.4	-	117.4	117.4	124.3	-	-	-
Malaria	**0**	**0.2**	0.1	0.1	0.1	0.1	-	-	-	-	-	-
Influenza	**18.9**	**17.2**	14.5	9.6	7.7	7.7	6.5	6.5	3.9	-	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**2.8**	**1**	0.8	1.1	0.9	0.9	1.4	1.4	1.4	-	-	-
Typhus Fever	**0**	**0.1**	0.1	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**158.2**	**89.8**	73.7	86.9	67.4	-	146.7	146.7	135.4	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**279.2 (279.2)**	**264.2**	216.1	243.4	188	16.8	280.6	280.6	274.6	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1941), Scarlet Fever (1941), Whooping Cough (1941), Diphtheria (1941), Tuberculosis (all forms) (1941), Influenza (1941), Measles (1941), Pneumonia and Bronchopneumonia (1941)

Table C.29: *Germany (Altreich) - IVS 1938*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	**0.7**	0.7	-	-	0.7†	-	-	-	-	-	-
Plague	**0**	**0**	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	**1.5**	1.5	-	-	1.5†	-	-	-	-	-	-
Whooping Cough	**0**	**3.8**	3.8	-	-	1.2†	-	-	-	-	-	-
Diphtheria	**12.4**	**9.6**	9.6	-	-	9.2†	7.3†	7.3†	7.3†	-	-	-
Tuberculosis (all forms)	**95.9**	**62.4**	62.1	-	-	-	83.8†	83.8†	83.8†	-	-	-
Malaria	**0**	**0**	0	-	-	0†	-	-	-	-	-	-
Influenza	**16.8**	**14**	13.9	-	-	-	21.8†	21.8†	21.8†	-	-	-
Smallpox	**0**	**0**	0	-	-	0†	-	-	-	-	-	-
Measles	**0**	**2.2**	2.2	-	-	-	-	-	-	-	-	-
Typhus Fever	**0**	**0**	0	-	-	0†	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**57.5**	**84.2**	83.8	-	-	-	-	-	-	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**182.6 (182.6)**	**178.4**	177.6	-	-	12.5	112.9	112.9	112.9	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	**0.7**	0.7	-	-	1.1	-	-	-	-	-	-
Plague	**0**	**0**	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	**1.5**	1.5	-	-	3.4	-	-	-	-	-	-
Whooping Cough	**0**	**3.8**	3.8	-	-	1.4	-	-	-	-	-	-
Diphtheria	**12.4**	**9.6**	9.6	-	-	13.6	23	23	23	-	-	-
Tuberculosis (all forms)	**95.9**	**62.4**	62.1	-	-	-	132	132	132	-	-	-
Malaria	**0**	**0**	0	-	-	0	-	-	-	-	-	-
Influenza	**16.8**	**14**	13.9	-	-	-	14.6	14.6	14.6	-	-	-
Smallpox	**0**	**0**	0	-	-	0	-	-	-	-	-	-
Measles	**0**	**2.2**	2.2	-	-	-	-	-	-	-	-	-
Typhus Fever	**0**	**0**	0	-	-	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**57.5**	**84.2**	83.8	-	-	-	-	-	-	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**182.6 (182.6)**	**178.4**	177.6	-	-	19.5	169.5	169.5	169.5	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Malaria (1940), Smallpox (1939), Typhus Fever (1939)

LoN Town All: Diphtheria (1939), Tuberculosis (all forms) (1939), Influenza (1939)

LoN Town Excl. Agg.: Diphtheria (1939), Tuberculosis (all forms) (1939), Influenza (1939)

LoN Town Excl. Agg. & Miss.: Diphtheria (1939), Tuberculosis (all forms) (1939), Influenza (1939)

Table C.30: *Greece - IVS 1938*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	**15.1**	14.7	-	-	1.8†	-	-	-	-	-	-
Plague	**0**	**0**	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	**0.9**	0.9	-	-	0.5†	-	-	-	-	-	-
Whooping Cough	**0**	**14.2**	13.8	-	-	0.2†	-	-	-	-	-	-
Diphtheria	**0**	**4.1**	4	-	-	1†	-	-	-	-	-	-
Tuberculosis (all forms)	**162**	**115.7**	113	-	-	-	-	-	-	-	-	-
Malaria	**8.1**	**39.7**	38.8	-	-	-	-	-	-	-	-	-
Influenza	**76.3**	**47.5**	46.4	-	-	1.9†	-	-	-	-	-	-
Smallpox	**0**	**0.1**	0.1	-	-	0†	-	-	-	-	-	-
Measles	**0**	**5.1**	5	-	-	0.3†	-	-	-	-	-	-
Typhus Fever	**0.1**	**0.1**	0.1	-	-	0†	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**162.5**	**198.8**	194.1	-	-	-	-	-	-	-	-	-
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**409.2 (409)**	**441.3**	431	-	-	5.7	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	**15.1**	14.7	-	-	1.6	-	-	-	-	-	-
Plague	**0**	**0**	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	**0.9**	0.9	-	-	0.1	-	-	-	-	-	-
Whooping Cough	**0**	**14.2**	13.8	-	-	0.1	-	-	-	-	-	-
Diphtheria	**0**	**4.1**	4	-	-	0.8	-	-	-	-	-	-
Tuberculosis (all forms)	**162**	**115.7**	113	-	-	-	-	-	-	-	-	-
Malaria	**8.1**	**39.7**	38.8	-	-	-	-	-	-	-	-	-
Influenza	**76.3**	**47.5**	46.4	-	-	0.4	-	-	-	-	-	-
Smallpox	**0**	**0.1**	0.1	-	-	0.4	-	-	-	-	-	-
Measles	**0**	**5.1**	5	-	-	0.3	-	-	-	-	-	-
Typhus Fever	**0.1**	**0.1**	0.1	-	-	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**162.5**	**198.8**	194.1	-	-	-	-	-	-	-	-	-
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**409.2 (409)**	**441.3**	431	-	-	3.8	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Influenza (1939), Smallpox (1939), Measles (1939), Typhus Fever (1939)

Table C.31: *Guatemala - IVS 1943*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	**11.8**	12.6	-	-	4.5	-	-	-	-	9.6†	8.8†
Plague	**0**	**0**	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	**3.1**	3.3	-	-	0.5	-	-	-	-	-	-
Whooping Cough	**0**	**127.5**	136.1	-	-	14	-	-	-	-	102.3†	93.8†
Diphtheria	**0**	**1.3**	1.4	-	-	0.4	-	-	-	-	2.3†	2.1†
Tuberculosis (all forms)	**231.2**	**40.2**	42.9	-	-	-	-	-	-	-	92.7†	85†
Malaria	**73**	**392**	418.5	-	-	48.8	-	-	-	-	351.9†	322.6†
Influenza	**33.2**	**76.5**	81.7	-	-	14.3	-	-	-	-	71.5†	65.6†
Smallpox	**0**	**1.9**	2.1	-	-	0	-	-	-	-	1.6†	0†
Measles	**0**	**218**	232.7	-	-	22.6	-	-	-	-	75†	68.7†
Typhus Fever	**11.4**	**11.4**	12.2	-	-	6.5	-	-	-	-	2.3†	4.5
Pneumonia and Bronchopneumonia	**458.2**	**145**	154.8	-	-	-	-	-	-	-	184.1†	168.7†
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**805.6 (807)**	**1028.7**	1098.2	-	-	111.6	-	-	-	-	893.3	819.8
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	**11.8**	12.6	-	-	3.7	-	-	-	-	15.1	12.2
Plague	**0**	**0**	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	**3.1**	3.3	-	-	0.2	-	-	-	-	-	-
Whooping Cough	**0**	**127.5**	136.1	-	-	7.5	-	-	-	-	92.2	76.9
Diphtheria	**0**	**1.3**	1.4	-	-	0.3	-	-	-	-	2.1	1.8
Tuberculosis (all forms)	**231.2**	**40.2**	42.9	-	-	-	-	-	-	-	84.9	70.9
Malaria	**73**	**392**	418.5	-	-	49.3	-	-	-	-	354.6	293.4
Influenza	**33.2**	**76.5**	81.7	-	-	13.3	-	-	-	-	74.2	61.4
Smallpox	**0**	**1.9**	2.1	-	-	0	-	-	-	-	0.9	0.6
Measles	**0**	**218**	232.7	-	-	9	-	-	-	-	28.2	24.1
Typhus Fever	**11.4**	**11.4**	12.2	-	-	5	-	-	-	-	3.8	5
Pneumonia and Bronchopneumonia	**458.2**	**145**	154.8	-	-	-	-	-	-	-	187.2	154.9
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**805.6 (807)**	**1028.7**	1098.2	-	-	88.3	-	-	-	-	843.2	701.3

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†BioStat Rate: Typhoid and Paratyphoid Fevers (1938), Whooping Cough (1938), Diphtheria (1938), Tuberculosis (all forms) (1938), Malaria (1938), Influenza (1938), Smallpox (1938), Measles (1938), Typhus Fever (1938), Pneumonia and Bronchopneumonia (1938)

BioStat No. Deaths: Typhoid and Paratyphoid Fevers (1938), Whooping Cough (1938), Diphtheria (1938), Tuberculosis (all forms) (1938), Malaria (1938), Influenza (1938), Smallpox (1942), Measles (1938), Pneumonia and Bronchopneumonia (1938)

Table C.32: *Honduras - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	**-**	-	**6.8**	**-**	-	-	-	7	6.9
Plague	**-**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	**-**	-	**0**	**-**	-	-	-	0.1	0.1
Whooping Cough	**0**	-	-	**-**	-	**34.9**	**-**	-	-	-	47.5	47.5
Diphtheria	**0**	-	-	**-**	-	**1.4**	**-**	-	-	-	1.2	1.2
Tuberculosis (all forms)	**35.1**	-	-	**-**	-	**-**	**-**	-	-	-	28.6	28.6
Malaria	**73**	-	-	**-**	-	**268.4**	**-**	-	-	-	539.1	539
Influenza	**33.2**	-	-	**-**	-	**17.7**	**-**	-	-	-	31.2	31.2
Smallpox	**0**	-	-	**-**	-	**-**	**-**	-	-	-	4.7	4.7
Measles	**0**	-	-	**-**	-	**14.6**	**-**	-	-	-	65.7	65.7
Typhus Fever	**-**	-	-	**-**	-	**0**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**458.2**	-	-	**-**	-	**-**	**-**	-	-	-	55.6	55.5
Cholera	**-**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**609.5 (599.5)**	-	-	**-**	-	**343.8**	**-**	-	-	-	780.7	780.4
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	**-**	-	**9.2**	**-**	-	-	-	9.3	9
Plague	**-**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	**-**	-	**0.1**	**-**	-	-	-	0.1	0.1
Whooping Cough	**0**	-	-	**-**	-	**68.6**	**-**	-	-	-	63.6	61.2
Diphtheria	**0**	-	-	**-**	-	**1.1**	**-**	-	-	-	1.1	1.1
Tuberculosis (all forms)	**35.1**	-	-	**-**	-	**-**	**-**	-	-	-	24.7	24.2
Malaria	**73**	-	-	**-**	-	**291.3**	**-**	-	-	-	564.3	550
Influenza	**33.2**	-	-	**-**	-	**28**	**-**	-	-	-	31.5	30.7
Smallpox	**0**	-	-	**-**	-	**-**	**-**	-	-	-	11.8	11.3
Measles	**0**	-	-	**-**	-	**28**	**-**	-	-	-	22.4	22.1
Typhus Fever	**-**	-	-	**-**	-	**0**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**458.2**	-	-	**-**	-	**-**	**-**	-	-	-	44.3	43.4
Cholera	**-**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**609.5 (599.5)**	-	-	**-**	-	**426.2**	**-**	-	-	-	773.2	753

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.33: *India - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**41.1**	-	-	-	-	**19.3**†	**71.7**	71.7	71.7	-	-	-
Plague	-	-	-	-	-	**11.8**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0.5**	-	-	-	-	**2.6**†	**0.2**	0.2	0.2	-	-	-
Diphtheria	**5.4**	-	-	-	-	**0.4**†	**4.3**	4.3	4.3	-	-	-
Tuberculosis (all forms)	**162.9**	-	-	-	-	-	**160.6**	160.6	160.6	-	-	-
Malaria	**126.4**	-	-	-	-	**1041**†	**29.8**†	29.8†	29.8†	-	-	-
Influenza	**2.9**	-	-	-	-	**1.6**†	**9.5**	9.5	5.4†	-	-	-
Smallpox	**60.9**	-	-	-	-	**27.4**	-	-	-	-	-	-
Measles	**28.3**	-	-	-	-	**11.1**†	**22.8**	22.8	22.8	-	-	-
Typhus Fever	-	-	-	-	-	-	**0.1**†	0.1†	0.1†	-	-	-
Pneumonia and Bronchopneumonia	**536.8**	-	-	-	-	-	**395.5**	395.5	395.5	-	-	-
Cholera	**26.4**	-	-	-	-	**32.2**	-	-	-	-	-	-
Predicted Mortality	**1126 (991.6)**	-	-	-	-	**1147.5**	**694.6**	694.6	690.5	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**41.1**	-	-	-	-	**21**	**57.7**	57.7	57.7	-	-	-
Plague	-	-	-	-	-	**11.2**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0.5**	-	-	-	-	**2.6**	**0.4**	0.4	0.4	-	-	-
Diphtheria	**5.4**	-	-	-	-	**0.4**	**4.3**	4.3	4.3	-	-	-
Tuberculosis (all forms)	**162.9**	-	-	-	-	-	**133.7**	133.7	133.7	-	-	-
Malaria	**126.4**	-	-	-	-	**1074.6**	**44**	44	44	-	-	-
Influenza	**2.9**	-	-	-	-	**1.9**	**6.7**	6.7	7	-	-	-
Smallpox	**60.9**	-	-	-	-	**25**	-	-	-	-	-	-
Measles	**28.3**	-	-	-	-	**12.8**	**20.2**	20.2	20.2	-	-	-
Typhus Fever	-	-	-	-	-	-	**0**	0	0	-	-	-
Pneumonia and Bronchopneumonia	**536.8**	-	-	-	-	-	**404.3**	404.3	404.3	-	-	-
Cholera	**26.4**	-	-	-	-	**72.3**	-	-	-	-	-	-
Predicted Mortality	**1126 (991.6)**	-	-	-	-	**1221.8**	**671.2**	671.2	671.4	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.
†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1937), Whooping Cough (1936), Diphtheria (1937), Malaria (1936), Influenza (1937), Measles (1937)
LoN Town All: Malaria (1937), Typhus Fever (1937)
LoN Town Excl. Agg.: Malaria (1937), Typhus Fever (1937)
LoN Town Excl. Agg. & Miss.: Malaria (1937), Influenza (1937), Typhus Fever (1937)

Table C.34: *Indonesia (Java And Madura) - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.6**	-	-	-	-	-	-
Plague	-	-	-	-	-	**0.8**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Tuberculosis (all forms)	**205.4**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**30.1**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**1.5**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**8.6**	-	-	-	-	**0**†	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**621.9**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**877.5 (867.5)**	-	-	-	-	**2.7**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.5**	-	-	-	-	-	-
Plague	-	-	-	-	-	**2**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Tuberculosis (all forms)	**205.4**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**30.1**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**1.5**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**8.6**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**621.9**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**877.5 (867.5)**	-	-	-	-	**3.7**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Smallpox (1939)

Table C.35: *Ireland - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0.8**	**1**	1	1	1	1	0.8	0.8	0.8	-	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**1.2**	**1.1**	1.1	1.1	1.1	1.1	1.2	1.2	1.2	-	-	-
Whooping Cough	**8.6**	**5.5**	5.4	5.5	5.4	5.4	8.6	8.6	8.6	-	-	-
Diphtheria	**11.5**	**6**	5.9	6	5.9	5.9	11.5	11.5	11.5	-	-	-
Tuberculosis (all forms)	**163.1**	**124.6**	122.9	124.6	122.9	-	163.1	163.1	163.1	-	-	-
Malaria	**0**	**0.2**	0.2	0.2	0.2	0.2	-	-	-	-	-	-
Influenza	**19.7**	**28**	27.6	28	27.6	27.6	19.7	19.7	19.7	-	-	-
Smallpox	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Measles	**5.1**	**2.6**	2.6	2.6	2.6	2.6	5.1	5.1	5.1	-	-	-
Typhus Fever	**0.1**	**0.1**	0.1	0.1	0.1	0.1	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**95.6**	**62.9**	62	62.9	62	-	95.6	95.6	95.6	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**305.7 (305.7)**	**232**	228.8	232	228.8	43.9	305.6	305.6	305.6	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0.8**	**1.4**	1.4	1.5	1.5	1.5	0.9	0.9	0.9	-	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**1.2**	**1.1**	1.1	1	1	0.8	0.7	0.7	0.7	-	-	-
Whooping Cough	**8.6**	**8**	7.9	6.4	6.3	6.4	8.8	8.8	8.8	-	-	-
Diphtheria	**11.5**	**8.2**	8.2	8.1	8	7.7	11.3	11.3	11.3	-	-	-
Tuberculosis (all forms)	**163.1**	**135.3**	133.7	125.9	124.7	-	164.3	164.3	164.3	-	-	-
Malaria	**0**	**0.1**	0.1	0.1	0.1	0.1	-	-	-	-	-	-
Influenza	**19.7**	**21.8**	21.5	25.2	24.9	25.1	8.3	8.3	8.3	-	-	-
Smallpox	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Measles	**5.1**	**1.9**	1.8	2.6	2.6	2.5	4.9	4.9	4.9	-	-	-
Typhus Fever	**0.1**	**0.1**	0.1	0.1	0.1	0.1	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**95.6**	**63.2**	62.5	63.4	62.7	-	78.8	78.8	78.8	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**305.7 (305.7)**	**241.1**	238.4	234.3	231.9	44.1	278	278	278	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.36: *Italy - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**10.2**	**8.8**	9.1	8.9	9.1	9.1	10.4	10.2	10.2	11.1	-	-
Plague	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Scarlet Fever	**0.7**	**0.3**	0.3	0.3	0.3	0.3	0.7	0.7	0.7	0.5	-	-
Whooping Cough	**5.1**	**4.3**	4.4	4.3	4.4	4.4	5.1	5.4	5.4	4	-	-
Diphtheria	**7.3**	**5.4**	5.5	5.4	5.5	5.5	8.7	8.9	8.9	8	-	-
Tuberculosis (all forms)	**595.4**	**74.5**	76.2	74.7	76.2	-	119.1	119.4	119.4	117.9	-	-
Malaria	**3.1**	**1.1**	1.1	1.1	1.1	1.1	-	-	-	-	-	-
Influenza	**15.9**	**15.6**	16	15.7	16	16	15.9	15	15	19.4	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**2.3**	**2.5**	2.6	2.5	2.6	2.6	2.3	2.3	2.3	2	-	-
Typhus Fever	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**176.5**	**177.3**	181.5	178.1	181.5	-	176.5	179.8	179.8	163.1	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**816.4 (816.4)**	**289.8**	296.7	291	296.7	38.9	338.6	341.7	341.7	326	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**10.2**	**11.2**	11.5	12.7	12.7	12.7	13.6	13.3	13.3	14.7	-	-
Plague	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Scarlet Fever	**0.7**	**0.3**	0.3	0.3	0.3	0.3	0.8	0.9	0.9	0.6	-	-
Whooping Cough	**5.1**	**3.9**	4	4.1	4.1	4	4.1	4.1	4.1	4.2	-	-
Diphtheria	**7.3**	**5.8**	5.9	5.9	5.9	5.9	9.6	9.9	9.9	8.4	-	-
Tuberculosis (all forms)	**595.4**	**88.1**	90.4	88.3	88.8	-	142.6	142.2	142.2	144.1	-	-
Malaria	**3.1**	**1.8**	1.8	2.3	2.3	2.4	-	-	-	-	-	-
Influenza	**15.9**	**12.4**	12.8	12.7	12.9	12	14.8	14	14	17.8	-	-
Smallpox	**0**	**0**	0	0.1	0.1	0.1	-	-	-	-	-	-
Measles	**2.3**	**2.5**	2.7	3	3	2.6	4.1	4.3	4.3	3.1	-	-
Typhus Fever	**0**	**0**	0	0.1	0.1	0.1	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**176.5**	**169.9**	174.2	165.1	166.5	-	188.3	192.1	192.1	173	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**816.4 (816.4)**	**295.9**	303.5	294.5	296.7	40	377.9	380.9	380.9	365.9	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.37: *Korea, Rep. - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	Census No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**7.6**	-	-	-	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**7.3**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**1.9**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**35.4**	-	-	-	-	-	-
Malaria	**0**	-	-	-	-	**5.1**	-	-	-	-	-	-
Influenza	**6.3**	-	-	-	-	**44.1**	-	-	-	-	-	-
Smallpox	**10.7**	-	-	-	-	**1.2**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**37.3**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0.7**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**158.5**	-	-	-	-	**114.5**	-	-	-	-	-	-
Cholera	-	-	-	-	-	**0**	-	-	-	-	-	-
Predicted Mortality	**185.5 (175.5)**	-	-	-	-	**255.3**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**4.9**	-	-	-	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**8.9**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**2**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**34.1**	-	-	-	-	-	-
Malaria	**0**	-	-	-	-	**5.9**	-	-	-	-	-	-
Influenza	**6.3**	-	-	-	-	**44.4**	-	-	-	-	-	-
Smallpox	**10.7**	-	-	-	-	**1.1**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**57.6**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0.5**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**158.5**	-	-	-	-	**113.5**	-	-	-	-	-	-
Cholera	-	-	-	-	-	**0**	-	-	-	-	-	-
Predicted Mortality	**185.5 (175.5)**	-	-	-	-	**273.1**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Country-level mortality rates for Korea, Rep. are taken from the Government-General of Korea's "Vital Statistics of Korea, 1938-1942" (Seoul, 1941-1944)

Table C.38: *Malaysia (Federation Of Malaya) - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**4.2**†	-	-	-	-	-	-
Plague	**0**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**2**†	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**30.1**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**1.5**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0.9**	-	-	-	-	**18.2**†	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**1**†	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**274.4**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	**5**†	-	-	-	-	-	-
Predicted Mortality	**316.9 (306.9)**	-	-	-	-	**30.4**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**4.2**	-	-	-	-	-	-
Plague	**0**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**2**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**30.1**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**1.5**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0.9**	-	-	-	-	**18.2**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**1**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**274.4**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	**5**	-	-	-	-	-	-
Predicted Mortality	**316.9 (306.9)**	-	-	-	-	**30.4**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1946), Diphtheria (1946), Smallpox (1946), Typhus Fever (1946), Cholera (1946)

Table C.39: *Mexico - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**31.4**	**31.9**	31.9	31.7	31.9	31.9	31.4	31.4	31.4	-	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.2**	**2.5**	2.5	2.4	2.5	2.5	0.1	0.1	0.2	-	-	-
Whooping Cough	**6.7**	**42.4**	42.4	42.2	42.4	42.4	6.7	6.7	6.7	-	-	-
Diphtheria	**7.8**	**5.4**	5.4	5.4	5.4	5.4	7.8	7.8	7.8	-	-	-
Tuberculosis (all forms)	**84.8**	**57**	57	56.7	57	-	84.8	84.8	84.8	-	-	-
Malaria	**4.1**	**121.7**	121.7	121	121.7	121.7	-	-	-	-	-	-
Influenza	**12.5**	**25.1**	25.1	25	25.1	25.1	6.2	6.2	6.2	-	-	-
Smallpox	**3.7**	**6.8**	6.8	6.8	6.8	6.8	-	-	-	-	-	-
Measles	**43.8**	**91.2**	91.2	90.7	91.2	91.2	43.8	43.8	43.8	-	-	-
Typhus Fever	**5.8**	**5.8**	5.8	5.7	5.8	5.8	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**416**	**356.3**	356.3	354.3	356.3	-	416	416	416	-	-	-
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**620.9 (616.7)**	**746.1**	746.1	741.9	746.1	332.8	596.8	596.8	596.8	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**31.4**	**37.5**	37.2	29.3	29	27.9	25.3	25.3	25.3	-	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.2**	**2.2**	2.2	2.2	2.2	2.2	0.5	0.5	0.5	-	-	-
Whooping Cough	**6.7**	**48.2**	47.8	59.3	59.1	55.5	11.1	11.1	11.1	-	-	-
Diphtheria	**7.8**	**5.2**	5.2	5.5	5.3	5.1	7.4	7.4	7.4	-	-	-
Tuberculosis (all forms)	**84.8**	**56.2**	55.8	56.5	55.7	-	94.8	94.8	94.8	-	-	-
Malaria	**4.1**	**125.8**	124.9	127	125.3	120.4	-	-	-	-	-	-
Influenza	**12.5**	**31.9**	31.6	27.7	26.7	27.2	6.8	6.8	6.8	-	-	-
Smallpox	**3.7**	**9.6**	9.6	12.8	12.7	10.7	-	-	-	-	-	-
Measles	**43.8**	**61.9**	61.7	56.5	58.3	59.4	24.9	24.9	24.9	-	-	-
Typhus Fever	**5.8**	**5.8**	5.7	6.2	6.1	6.1	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**416**	**341.8**	339.6	328.3	324.4	-	398	398	398	-	-	-
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**620.9 (616.7)**	**726**	721.4	711.4	704.9	314.6	568.8	568.8	568.8	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.40: *Myanmar - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**2.1**	-	-	-	-	-	-
Plague	-	-	-	-	-	**7.5**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**1.7**	-	-	-	-	-	**1.7**†	1.7†	1.7†	-	-	-
Diphtheria	**0**	-	-	-	-	-	**0**†	0†	0†	-	-	-
Tuberculosis (all forms)	**163.1**	-	-	-	-	-	**163.1**†	163.1†	163.1†	-	-	-
Malaria	**64.7**	-	-	-	-	-	**35.5**†	35.5†	35.5†	-	-	-
Influenza	**7.2**	-	-	-	-	-	**1.6**†	1.6†	1.6†	-	-	-
Smallpox	**4**	-	-	-	-	**20.9**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**1.3**†	1.3†	1.3†	-	-	-
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**365.2**	-	-	-	-	-	**365.2**†	365.2†	365.2†	-	-	-
Cholera	**35.7**	-	-	-	-	**35.6**	-	-	-	-	-	-
Predicted Mortality	**621.2 (641.6)**	-	-	-	-	**66.1**	**568.4**	568.4	568.4	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**2.1**	-	-	-	-	-	-
Plague	-	-	-	-	-	**15.7**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**1.7**	-	-	-	-	-	**1.7**	1.7	1.7	-	-	-
Diphtheria	**0**	-	-	-	-	-	**0**	0	0	-	-	-
Tuberculosis (all forms)	**163.1**	-	-	-	-	-	**163.1**	163.1	163.1	-	-	-
Malaria	**64.7**	-	-	-	-	-	**24.2**	24.2	24.2	-	-	-
Influenza	**7.2**	-	-	-	-	-	**1.3**	1.3	1.3	-	-	-
Smallpox	**4**	-	-	-	-	**10.2**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**1.3**	1.3	1.3	-	-	-
Typhus Fever	-	-	-	-	-	**0.1**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**365.2**	-	-	-	-	-	**365.2**	365.2	365.2	-	-	-
Cholera	**35.7**	-	-	-	-	**19.6**	-	-	-	-	-	-
Predicted Mortality	**621.2 (641.6)**	-	-	-	-	**47.7**	**556.8**	556.8	556.8	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.
†LoN Town All: Whooping Cough (1946), Diphtheria (1946), Tuberculosis (all forms) (1946), Malaria (1937), Influenza (1936), Measles (1946), Pneumonia and Bronchopneumonia (1946)
LoN Town Excl. Agg.: Whooping Cough (1946), Diphtheria (1946), Tuberculosis (all forms) (1946), Malaria (1937), Influenza (1936), Measles (1946), Pneumonia and Bronchopneumonia (1946)
LoN Town Excl. Agg. & Miss.: Whooping Cough (1946), Diphtheria (1946), Tuberculosis (all forms) (1946), Malaria (1937), Influenza (1936), Measles (1946), Pneumonia and Bronchopneumonia (1946)

Table C.41: *Netherlands - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0.2**	**0.3**	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.2**	**0.4**	0.4	0.4	0.4	0.4	0.2	0.1	0.1	0.2	-	-
Whooping Cough	**8.2**	**4.9**	4.9	4.9	4.9	4.9	2	1.8	1.8	2.9	-	-
Diphtheria	**0.6**	**1.2**	1.2	1.2	1.2	1.2	0.6	0.4	0.4	0.9	-	-
Tuberculosis (all forms)	**107.8**	**43.7**	43.5	43.7	43.5	-	37	36.2	36.2	39.1	-	-
Malaria	**0**	**0.1**	0.1	0.1	0.1	0†	-	-	-	-	-	-
Influenza	**14.7**	**17.8**	17.7	17.8	17.7	17.7	14.7	14.8	14.8	14.3	-	-
Smallpox	**0.3**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**1.2**	**1.6**	1.6	1.6	1.6	1.6	1.2	1.2	1.2	1.4	-	-
Typhus Fever	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**47**	**62.4**	62.1	62.4	62.1	-	47	45.9	45.9	50.3	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**180.1 (180.1)**	**132.4**	131.6	132.4	131.6	26	102.8	100.6	100.6	109.3	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0.2**	**0.5**	0.5	1.5	1.5	1.5	1.4	1.5	1.5	1.3	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.2**	**0.3**	0.3	0.6	0.6	0.6	0.6	0.6	0.6	0.7	-	-
Whooping Cough	**8.2**	**3.8**	3.7	5	4.9	4.9	3	2.8	2.8	3.6	-	-
Diphtheria	**0.6**	**5.4**	5.3	17.8	17.4	17.4	14.3	13.8	13.8	16.1	-	-
Tuberculosis (all forms)	**107.8**	**52.5**	52.1	60.4	59.5	-	60.9	61	61	60.6	-	-
Malaria	**0**	**0.1**	0.1	0.1	0.1	0.1	-	-	-	-	-	-
Influenza	**14.7**	**14**	13.9	17.2	17	17	13.8	13.8	13.8	13.9	-	-
Smallpox	**0.3**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**1.2**	**1.4**	1.4	1.5	1.6	1.6	1	1	1	1.2	-	-
Typhus Fever	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**47**	**59.6**	59.1	58.6	57.8	-	50.6	49.8	49.8	52.9	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**180.1 (180.1)**	**137.5**	136.4	162.7	160.4	43.1	145.7	144.3	144.3	150.1	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN V2 No. Deaths: Malaria (1941)

Table C.42: *New Zealand (White) - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	**0.4**	-	0.4	-	-	0	0	0	0.1	-	-
Plague	**0**	**0**	-	0	-	-	-	-	-	-	-	-
Scarlet Fever	**0.2**	**0.1**	-	0.1	-	-	0.2	0.2	0.2	0.1	-	-
Whooping Cough	**4**	**1.5**	-	1.5	-	-	1.3	1	1	1.9	-	-
Diphtheria	**1.4**	**1**	-	1	-	-	1.4	1.7	1.7	0.9	-	-
Tuberculosis (all forms)	**158.5**	**38.8**	-	38.8	-	-	52.8	55.3	55.3	47.9	-	-
Malaria	**0**	**0.1**	-	0.1	-	-	-	-	-	-	-	-
Influenza	**6.8**	**7.7**	-	7.7	-	-	6.8	6.6	6.6	7.3	-	-
Smallpox	**0**	**0**	-	0	-	-	-	-	-	-	-	-
Measles	**0.3**	**0.1**	-	0.1	-	-	0	0	0	0	-	-
Typhus Fever	**0**	**0**	-	0	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**42.8**	**33.9**	-	33.9	-	-	42.8	44.8	44.8	38.8	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**214.1 (214.1)**	**83.6**	-	83.6	-	-	105.5	109.7	109.7	97	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	**0.3**	-	0.4	-	-	0.4	0.4	0.4	0.3	-	-
Plague	**0**	**0**	-	0	-	-	-	-	-	-	-	-
Scarlet Fever	**0.2**	**0.1**	-	0.4	-	-	0.4	0.4	0.4	0.4	-	-
Whooping Cough	**4**	**1.3**	-	1.4	-	-	1	1	1	1.2	-	-
Diphtheria	**1.4**	**1.5**	-	1.9	-	-	1.9	2.1	2.1	1.6	-	-
Tuberculosis (all forms)	**158.5**	**38**	-	38.1	-	-	49.2	51.1	51.1	45.3	-	-
Malaria	**0**	**0.1**	-	0	-	-	-	-	-	-	-	-
Influenza	**6.8**	**5.9**	-	7.4	-	-	6.3	6.2	6.2	6.4	-	-
Smallpox	**0**	**0**	-	0	-	-	-	-	-	-	-	-
Measles	**0.3**	**0.3**	-	1.7	-	-	0.7	0.7	0.7	0.6	-	-
Typhus Fever	**0**	**0**	-	0	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**42.8**	**32.3**	-	37.4	-	-	40	40.7	40.7	38.8	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**214.1 (214.1)**	**79.9**	-	88.6	-	-	99.9	102.6	102.6	94.5	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.43: *Nicaragua - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**56.6**	-	-	-	-	-	**56.6**	56.6	56.6	-	20.1	20.3
Plague	**-**	-	-	-	-	-	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**-**	-	-	-	-	-
Whooping Cough	**12.2**	-	-	-	-	-	**12.2**	12.2	12.2	-	22	22.3
Diphtheria	**0.9**	-	-	-	-	-	**0.9**	0.9	0.9	-	0.6	0.6
Tuberculosis (all forms)	**86.1**	-	-	-	-	-	**86.1**	86.1	86.1	-	23.5	23.8
Malaria	**73**	-	-	-	-	-	**-**	-	-	-	401.8	406.2
Influenza	**33.2**	-	-	-	-	-	**-**	-	-	-	20.8	21.1
Smallpox	**0**	-	-	-	-	-	**-**	-	-	-	-	0.4
Measles	**0**	-	-	-	-	-	**-**	-	-	-	0.4	0.4
Typhus Fever	**-**	-	-	-	-	-	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**203.6**	-	-	-	-	-	**203.6**	203.6	203.6	-	114.6	115.9
Cholera	**-**	-	-	-	-	-	**-**	-	-	-	-	-
Predicted Mortality	**475.6 (465.6)**	-	-	-	-	-	**359.4**	359.4	359.4	-	603.8	611
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**56.6**	-	-	-	-	-	**51.3**	51.3	51.3	-	22	23.3
Plague	**-**	-	-	-	-	-	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**-**	-	-	-	-	-
Whooping Cough	**12.2**	-	-	-	-	-	**17.1**	17.1	17.1	-	23.9	25.4
Diphtheria	**0.9**	-	-	-	-	-	**1.6**	1.6	1.6	-	1	1.1
Tuberculosis (all forms)	**86.1**	-	-	-	-	-	**103.5**	103.5	103.5	-	26	27.3
Malaria	**73**	-	-	-	-	-	**-**	-	-	-	323.6	337.4
Influenza	**33.2**	-	-	-	-	-	**-**	-	-	-	16.5	17.3
Smallpox	**0**	-	-	-	-	-	**-**	-	-	-	-	0.5
Measles	**0**	-	-	-	-	-	**-**	-	-	-	26.8	27.1
Typhus Fever	**-**	-	-	-	-	-	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**203.6**	-	-	-	-	-	**186**	186	186	-	101.2	106.7
Cholera	**-**	-	-	-	-	-	**-**	-	-	-	-	-
Predicted Mortality	**475.6 (465.6)**	-	-	-	-	-	**359.4**	359.4	359.4	-	541.1	566

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.44: *Norway - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0.4**	**0.3**	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**1**	**0.8**	0.8	0.8	0.8	0.8	1	1.5	1.5	0.6	-	-
Whooping Cough	**1.4**	**2.2**	2.1	2.2	2.1	2.1	1.4	1.8	1.8	1	-	-
Diphtheria	**0.3**	**0.2**	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.2	-	-
Tuberculosis (all forms)	**79.5**	**82**	79.7	81.2	79.7	-	79.5	75.7	75.7	83.3	-	-
Malaria	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Influenza	**21.5**	**4.3**	4.2	4.2	4.2	4.2	3.3	2.6	2.6	4.1	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**0.2**	**0.6**	0.6	0.6	0.6	0.6	0.2	0	0	0.4	-	-
Typhus Fever	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**110**	**84.4**	82.1	83.7	82.1	-	110	122.2	122.2	97.8	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**214.4 (214.4)**	**174.8**	170	173.2	170	8.1	196.2	204.6	204.6	187.9	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0.4**	**0.3**	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.4	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**1**	**1**	1	1.6	1.5	1.6	1.1	1	1	1.2	-	-
Whooping Cough	**1.4**	**2.5**	2.5	2	1.9	2	1.1	0.8	0.8	1.3	-	-
Diphtheria	**0.3**	**1.2**	1.2	7.9	7.8	9.6	6.8	4.9	4.9	8.7	-	-
Tuberculosis (all forms)	**79.5**	**81.1**	78.8	77.2	75.9	-	71.8	67.6	67.6	76	-	-
Malaria	**0**	**0.1**	0	0.1	0.1	0.1	-	-	-	-	-	-
Influenza	**21.5**	**9.1**	8.8	5.1	5	5.3	3.5	2.1	2.1	4.9	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**0.2**	**0.9**	0.9	1.2	1.2	1.2	0.6	0.3	0.3	0.9	-	-
Typhus Fever	**0**	**0**	0	0.1	0.1	0.1	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**110**	**90.2**	87.7	87.5	85.9	-	107.3	123.2	123.2	91.5	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**214.4 (214.4)**	**186.6**	181.3	182.9	179.7	20.2	192.6	200.2	200.2	184.9	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.45: *Pakistan - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**17.3**	-	-	-	-	**25.4†**	**17.3**	17.3	17.3	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**6.8**	-	-	-	-	**2.2†**	**6.8**	6.8	6.8	-	-	-
Diphtheria	**3.4**	-	-	-	-	**0.6†**	**3.4**	3.4	3.4	-	-	-
Tuberculosis (all forms)	**233.8**	-	-	-	-	-	**233.8**	233.8	233.8	-	-	-
Malaria	**7.9**	-	-	-	-	**294.7†**	**8.2†**	8.2†	8.2†	-	-	-
Influenza	**0.3**	-	-	-	-	**0.1†**	**0.3**	0.3	0.3	-	-	-
Smallpox	**17.4**	-	-	-	-	**16.3**	-	-	-	-	-	-
Measles	**32.7**	-	-	-	-	**9.5†**	**32.7**	32.7	32.7	-	-	-
Typhus Fever	-	-	-	-	-	**0†**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**421.3**	-	-	-	-	-	**421.3**	421.3	421.3	-	-	-
Cholera	**26.4**	-	-	-	-	**1.9**	-	-	-	-	-	-
Predicted Mortality	**813.4 (767.3)**	-	-	-	-	**350.8**	**723.8**	723.8	723.8	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**17.3**	-	-	-	-	**23.9**	**16.9**	16.9	16.9	-	-	-
Plague	-	-	-	-	-	**0.1**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**6.8**	-	-	-	-	**3.9**	**4.8**	4.8	4.8	-	-	-
Diphtheria	**3.4**	-	-	-	-	**0.6**	**3.8**	3.8	3.8	-	-	-
Tuberculosis (all forms)	**233.8**	-	-	-	-	-	**190.2**	190.2	190.2	-	-	-
Malaria	**7.9**	-	-	-	-	**442.8**	**9.4**	9.4	9.4	-	-	-
Influenza	**0.3**	-	-	-	-	**0.7**	**0.2**	0.2	0.2	-	-	-
Smallpox	**17.4**	-	-	-	-	**9.7**	-	-	-	-	-	-
Measles	**32.7**	-	-	-	-	**7.3**	**14.7**	14.7	14.7	-	-	-
Typhus Fever	-	-	-	-	-	**1.1**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**421.3**	-	-	-	-	-	**498.8**	498.8	498.8	-	-	-
Cholera	**26.4**	-	-	-	-	**4.8**	-	-	-	-	-	-
Predicted Mortality	**813.4 (767.3)**	-	-	-	-	**494.9**	**738.7**	738.7	738.7	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1937), Whooping Cough (1937), Diphtheria (1937), Malaria (1937), Influenza (1937), Measles (1937), Typhus Fever (1937)

LoN Town All: Malaria (1937)

LoN Town Excl. Agg.: Malaria (1937)

LoN Town Excl. Agg. & Miss.: Malaria (1937)

Table C.46: *Panama - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	1.8†	1.7†
Plague	-	-	-	-	-	-	-	-	-	-	0†	0†
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	0.2†	0.2†
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	49.9†	45.8†
Diphtheria	**0**	-	-	-	-	**0.9**	-	-	-	-	4.3†	4†
Tuberculosis (all forms)	**261.9**	-	-	-	-	-	-	-	-	-	119.1†	109.4†
Malaria	**2.6**	-	-	-	-	-	-	-	-	-	105.1†	96.6†
Influenza	**33.2**	-	-	-	-	-	-	-	-	-	0.7†	0.6†
Smallpox	**0**	-	-	-	-	-	-	-	-	-	0†	0†
Measles	**0**	-	-	-	-	-	-	-	-	-	0.8†	0.8†
Typhus Fever	-	-	-	-	-	-	-	-	-	-	0†	0†
Pneumonia and Bronchopneumonia	**287.5**	-	-	-	-	-	-	-	-	-	143†	131.4†
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**595.2 (585.2)**	-	-	-	-	**0.9**	-	-	-	-	424.9	390.4
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	2	2.6
Plague	-	-	-	-	-	-	-	-	-	-	0.9	1.2
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	0.1	0.2
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	20.6	23.4
Diphtheria	**0**	-	-	-	-	**0.7**	-	-	-	-	3	3.7
Tuberculosis (all forms)	**261.9**	-	-	-	-	-	-	-	-	-	152.9	201.5
Malaria	**2.6**	-	-	-	-	-	-	-	-	-	124	157
Influenza	**33.2**	-	-	-	-	-	-	-	-	-	7.4	9.6
Smallpox	**0**	-	-	-	-	-	-	-	-	-	0	0
Measles	**0**	-	-	-	-	-	-	-	-	-	2.6	3.5
Typhus Fever	-	-	-	-	-	-	-	-	-	-	0.1	0.2
Pneumonia and Bronchopneumonia	**287.5**	-	-	-	-	-	-	-	-	-	130.9	162.7
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**595.2 (585.2)**	-	-	-	-	**0.7**	-	-	-	-	444.5	565.4

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†BioStat Rate: Typhoid and Paratyphoid Fevers (1943), Plague (1943), Scarlet Fever (1943), Whooping Cough (1943), Diphtheria (1943), Tuberculosis (all forms) (1943), Malaria (1943), Influenza (1943), Smallpox (1943), Measles (1943), Typhus Fever (1943), Pneumonia and Bronchopneumonia (1943)

BioStat No. Deaths: Typhoid and Paratyphoid Fevers (1943), Plague (1943), Scarlet Fever (1943), Whooping Cough (1943), Diphtheria (1943), Tuberculosis (all forms) (1943), Malaria (1943), Influenza (1943), Smallpox (1943), Measles (1943), Typhus Fever (1943), Pneumonia and Bronchopneumonia (1943)

Table C.47: *Paraguay (Biodemographic District) - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	21.2	21.2
Plague	-	-	-	-	-	-	-	-	-	-	0	0
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	0†	0†
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	6.9†	6.9†
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	5.2†	5.2†
Tuberculosis (all forms)	**215.8**	-	-	-	-	-	-	-	-	-	94.2	94.2
Malaria	**7.5**	-	-	-	-	-	-	-	-	-	53.2†	53.2†
Influenza	**35.1**	-	-	-	-	-	-	-	-	-	27.8	27.8
Smallpox	**0**	-	-	-	-	-	-	-	-	-	0	0
Measles	**0**	-	-	-	-	-	-	-	-	-	1.7†	1.7†
Typhus Fever	-	-	-	-	-	-	-	-	-	-	0	0
Pneumonia and Bronchopneumonia	**95.8**	-	-	-	-	-	-	-	-	-	133.1	133.1
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**364.2 (354.2)**	-	-	-	-	-	-	-	-	-	343.3	343.2
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	19.8	19.6
Plague	-	-	-	-	-	-	-	-	-	-	0	0
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	0	0
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	5.2	5.2
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	4.2	4.3
Tuberculosis (all forms)	**215.8**	-	-	-	-	-	-	-	-	-	108.3	107.3
Malaria	**7.5**	-	-	-	-	-	-	-	-	-	34.2	34.2
Influenza	**35.1**	-	-	-	-	-	-	-	-	-	32.1	31.8
Smallpox	**0**	-	-	-	-	-	-	-	-	-	0.1	0.1
Measles	**0**	-	-	-	-	-	-	-	-	-	1.7	1.7
Typhus Fever	-	-	-	-	-	-	-	-	-	-	0	0
Pneumonia and Bronchopneumonia	**95.8**	-	-	-	-	-	-	-	-	-	132.7	131.6
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**364.2 (354.2)**	-	-	-	-	-	-	-	-	-	338.3	335.7

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†BioStat Rate: Scarlet Fever (1942), Whooping Cough (1941), Diphtheria (1941), Malaria (1941), Measles (1942)
BioStat No. Deaths: Scarlet Fever (1942), Whooping Cough (1941), Diphtheria (1941), Malaria (1941), Measles (1942)

Table C.48: *Peru - IVS 1943*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	**15.4**	16.3	-	-	16.9†	-	-	-	-	30.2†	32†
Plague	**2**	**2**	2.1	-	-	0.4	-	-	-	-	2.6†	0.4
Scarlet Fever	**0**	**0**	0	-	-	4.8†	-	-	-	-	2.6†	2.7†
Whooping Cough	**0**	**92.6**	97.6	-	-	120.7†	-	-	-	-	100.8†	106.9†
Diphtheria	**0**	**2.4**	2.5	-	-	4.7†	-	-	-	-	1.7†	1.8†
Tuberculosis (all forms)	**608.5**	**92.7**	97.8	-	-	-	-	-	-	-	82.4†	87.5†
Malaria	**39.9**	**54.1**	57.1	-	-	57.1	-	-	-	-	63.7†	67.6†
Influenza	**52**	**93.8**	98.9	-	-	89†	-	-	-	-	103.5†	109.8†
Smallpox	**0**	**57.8**	60.9	-	-	60.9	-	-	-	-	49.3†	52.3†
Measles	**0**	**38.5**	40.6	-	-	23.2†	-	-	-	-	14†	14.8†
Typhus Fever	**33.3**	**33.3**	35.1	-	-	27.1†	-	-	-	-	25.6†	27.1†
Pneumonia and Bronchopneumonia	**121.7**	**121.7**	128.4	-	-	-	-	-	-	-	116.9†	124.1†
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**832.2 (857.5)**	**604.3**	637.4	-	-	404.8	-	-	-	-	593.3	627.2
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	**15.4**	16.3	-	-	15.4	-	-	-	-	34.2	36.3
Plague	**2**	**2**	2.1	-	-	0.6	-	-	-	-	2.6	1.1
Scarlet Fever	**0**	**0**	0	-	-	3	-	-	-	-	3.7	3.9
Whooping Cough	**0**	**92.6**	97.6	-	-	107.3	-	-	-	-	109.2	116.1
Diphtheria	**0**	**2.4**	2.5	-	-	3.8	-	-	-	-	1.7	1.8
Tuberculosis (all forms)	**608.5**	**92.7**	97.8	-	-	-	-	-	-	-	80.6	85.8
Malaria	**39.9**	**54.1**	57.1	-	-	56.7	-	-	-	-	67.2	71.5
Influenza	**52**	**93.8**	98.9	-	-	100	-	-	-	-	111.1	118.2
Smallpox	**0**	**57.8**	60.9	-	-	28.6	-	-	-	-	41.3	44
Measles	**0**	**38.5**	40.6	-	-	21	-	-	-	-	12.4	13.1
Typhus Fever	**33.3**	**33.3**	35.1	-	-	22.8	-	-	-	-	21.6	23
Pneumonia and Bronchopneumonia	**121.7**	**121.7**	128.4	-	-	-	-	-	-	-	122.7	130.5
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**832.2 (857.5)**	**604.3**	637.4	-	-	359.2	-	-	-	-	608.2	645.2

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1944), Scarlet Fever (1944), Whooping Cough (1944), Diphtheria (1944), Influenza (1944), Measles (1944), Typhus Fever (1942)

BioStat Rate: Typhoid and Paratyphoid Fevers (1942), Plague (1942), Scarlet Fever (1942), Whooping Cough (1942), Diphtheria (1942), Tuberculosis (all forms) (1942), Malaria (1942), Influenza (1942), Smallpox (1942), Measles (1942), Typhus Fever (1942), Pneumonia and Bronchopneumonia (1942)

BioStat No. Deaths: Typhoid and Paratyphoid Fevers (1942), Scarlet Fever (1942), Whooping Cough (1942), Diphtheria (1942), Tuberculosis (all forms) (1942), Malaria (1942), Influenza (1942), Smallpox (1942), Measles (1942), Typhus Fever (1942), Pneumonia and Bronchopneumonia (1942)

Table C.49: *Philippines - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**7.9**	-	-	-	-	**4.4**	**7.9**	7.9	7.9	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**0**	0	0	-	-	-
Whooping Cough	**2.3**	-	-	-	-	**5**	**2.3**	2.3	2.3	-	-	-
Diphtheria	**5.6**	-	-	-	-	**1**	**5.6**	5.6	5.6	-	-	-
Tuberculosis (all forms)	**395.6**	-	-	-	-	-	**395.6**	395.6	395.6	-	-	-
Malaria	**10.8**	-	-	-	-	**55.2**	-	-	-	-	-	-
Influenza	**49**	-	-	-	-	**58.1**	**49**	49	49	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**47.8**	-	-	-	-	**8.2**	**47.8**	47.8	47.8	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**409**	-	-	-	-	-	**409**	409	409	-	-	-
Cholera	**0**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**976.5 (928)**	-	-	-	-	**131.8**	**917.2**	917.2	917.2	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**7.9**	-	-	-	-	**4.2**	**6.9**	6.9	6.9	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**0**	0	0	-	-	-
Whooping Cough	**2.3**	-	-	-	-	**3.2**	**2.4**	2.4	2.4	-	-	-
Diphtheria	**5.6**	-	-	-	-	**1**	**5.5**	5.5	5.5	-	-	-
Tuberculosis (all forms)	**395.6**	-	-	-	-	-	**398.8**	398.8	398.8	-	-	-
Malaria	**10.8**	-	-	-	-	**54.8**	-	-	-	-	-	-
Influenza	**49**	-	-	-	-	**46.3**	**26.9**	26.9	26.9	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**47.8**	-	-	-	-	**14.1**	**57.5**	57.5	57.5	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**409**	-	-	-	-	-	**361.9**	361.9	361.9	-	-	-
Cholera	**0**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**976.5 (928)**	-	-	-	-	**123.7**	**859.8**	859.8	859.8	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.50: *Portugal - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**12**	20.1	20.1	**20.2**	20.1	**20.1**	**12**	12	12	-	-	-
Plague	**0.3**	0.3	0.3	**0.3**	0.3	**-**	**-**	-	-	-	-	-
Scarlet Fever	**0.9**	0.4	0.4	**0.4**	0.4	**0.4**	**0.9**	0.9	0.9	-	-	-
Whooping Cough	**16.2**	11.7	11.7	**11.7**	11.7	**11.7**	**16.2**	16.2	16.2	-	-	-
Diphtheria	**4.7**	7.4	7.4	**7.5**	7.4	**7.4**	**4.7**	4.7	4.7	-	-	-
Tuberculosis (all forms)	**357.5**	152.3	152.3	**153.1**	152.3	**-**	**357.5**	357.5	357.5	-	-	-
Malaria	**1.2**	3.1	3.1	**3.1**	3.1	**3.1**	**-**	-	-	-	-	-
Influenza	**13.8**	19.6	19.6	**19.7**	19.6	**19.6**	**13.8**	13.8	13.8	-	-	-
Smallpox	**14.8**	1.2	1.2	**1.2**	1.2	**1.2**	**-**	-	-	-	-	-
Measles	**21.1**	17.1	17.1	**17.2**	17.1	**17.1**	**21.1**	21.1	21.1	-	-	-
Typhus Fever	**0.1**	0.1	0.1	**0.1**	0.1	**-**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**181.1**	120	120	**120.6**	120	**-**	**181.1**	181.1	181.1	-	-	-
Cholera	**0**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**623.4 (623.6)**	353.3	353.3	**355.1**	353.3	**80.6**	**607.2**	607.2	607.2	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**12**	18.8	18.8	**18.1**	18.1	**18.4**	**12**	12	12	-	-	-
Plague	**0.3**	0.2	0.2	**0.3**	0.3	**-**	**-**	-	-	-	-	-
Scarlet Fever	**0.9**	0.3	0.3	**0.5**	0.5	**0.3**	**0.7**	0.7	0.7	-	-	-
Whooping Cough	**16.2**	9.7	9.7	**10.1**	10.1	**10.4**	**9.4**	9.4	9.4	-	-	-
Diphtheria	**4.7**	9.9	9.9	**8.9**	8.9	**8.8**	**6.4**	6.4	6.4	-	-	-
Tuberculosis (all forms)	**357.5**	148.6	149	**152.7**	152.7	**-**	**364.5**	364.5	364.5	-	-	-
Malaria	**1.2**	3.3	3.4	**4.3**	4.3	**4.5**	**-**	-	-	-	-	-
Influenza	**13.8**	17.3	17.3	**14.7**	14.7	**13.6**	**9.3**	9.3	9.3	-	-	-
Smallpox	**14.8**	1	1.1	**1.4**	1.4	**1.3**	**-**	-	-	-	-	-
Measles	**21.1**	11.2	11.3	**10.5**	10.4	**9.4**	**10**	10	10	-	-	-
Typhus Fever	**0.1**	0.2	0.2	**0.2**	0.2	**-**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**181.1**	119.4	119.7	**117.4**	117.3	**-**	**158.5**	158.5	158.5	-	-	-
Cholera	**0**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**623.4 (623.6)**	340	340.8	**339**	338.9	**66.8**	**570.7**	570.7	570.7	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.51: *Spain - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**9.8**	**13.1**	13.1	13.2	13.1	13.1	9.8	8.9	8.9	12.5	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.6**	**0.4**	0.4	0.5	0.4	0.4	0.6	0.6	0.6	0.6	-	-
Whooping Cough	**2**	**3.5**	3.5	3.5	3.5	3.5	2	1.9	1.9	2.2	-	-
Diphtheria	**8.8**	**12.2**	12.2	12.3	12.4	12.4	8.8	8.5	8.5	9.7	-	-
Tuberculosis (all forms)	**162.7**	**112.8**	112.8	113.3	112.8	-	162.7	163.8	163.8	159.2	-	-
Malaria	**0.2**	**2**	2	2.1	2	2	-	-	-	-	-	-
Influenza	**12.7**	**16.8**	16.8	16.9	16.8	16.8	12.7	13.5	13.5	10.3	-	-
Smallpox	**0**	**3.8**	3.8	3.8	3.8	3.8	-	-	-	-	-	-
Measles	**9.7**	**8**	8	8	8	8	9.7	10	10	8.6	-	-
Typhus Fever	**0.3**	**0.3**	0.3	0.3	0.3	0.3	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**180.7**	**155.7**	155.7	156.4	155.7	-	180.7	183.4	183.4	172.6	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**387.1 (387.4)**	**328.6**	328.8	330.3	328.9	60.4	386.8	390.5	390.5	375.7	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**9.8**	**10.6**	10.7	14.9	14.9	12.6	10.9	10.4	10.4	12.4	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.6**	**0.3**	0.4	0.6	0.6	0.3	0.4	0.5	0.5	0.3	-	-
Whooping Cough	**2**	**2.8**	2.8	3.4	3.4	3.2	2.2	2.1	2.1	2.3	-	-
Diphtheria	**8.8**	**7.3**	7.4	6.6	6.6	5.9	4.6	4.6	4.6	4.9	-	-
Tuberculosis (all forms)	**162.7**	**112.2**	112.5	118.8	118.5	-	171.7	173.1	173.1	167.6	-	-
Malaria	**0.2**	**2**	2	2.6	2.6	3	-	-	-	-	-	-
Influenza	**12.7**	**18**	18	17	16.9	16.5	9.7	10	10	8.9	-	-
Smallpox	**0**	**1.9**	1.9	0.7	0.7	0.9	-	-	-	-	-	-
Measles	**9.7**	**5**	5	6.4	6.4	4.5	4	4	4	4.1	-	-
Typhus Fever	**0.3**	**0.3**	0.4	1.5	1.5	1.8	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**180.7**	**135**	135.2	138.9	138.4	-	145.7	148.5	148.5	137.2	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**387.1 (387.4)**	**295.6**	296.3	311.5	310.4	48.7	349.2	353.1	353.1	337.7	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.52: *Sri Lanka - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**86.1**	-	-	**16.6**	16.2	**16.2**	**86.1**	86.1	86.1	-	-	-
Plague	**-**	-	-	**0**	0	**0**	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	**0**	0	**0**	**-**	-	-	-	-	-
Whooping Cough	**0**	-	-	**1.7**	1.7	**1.7**	**-**	-	-	-	-	-
Diphtheria	**0**	-	-	**0.9**	0.9	**0.9**	**-**	-	-	-	-	-
Tuberculosis (all forms)	**227.9**	-	-	**61.8**	60.2	**-**	**227.9**	227.9	227.9	-	-	-
Malaria	**36.6**	-	-	**154.1**	149.9	**149.9**	**-**	-	-	-	-	-
Influenza	**67.5**	-	-	**31.9**	31	**31**	**67.5**	67.5	67.5	-	-	-
Smallpox	**3.8**	-	-	**0**	0	**0**	**-**	-	-	-	-	-
Measles	**1.5**	-	-	**0.5**	0.5	**0.5**	**1.5**	1.5	1.5	-	-	-
Typhus Fever	**-**	-	-	**0**	0	**0**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**182.7**	-	-	**151.4**	147.2	**-**	**182.7**	182.7	182.7	-	-	-
Cholera	**0**	-	-	**-**	-	**0**	**-**	-	-	-	-	-
Predicted Mortality	**616.6 (606.1)**	-	-	**418.9**	407.6	**200.2**	**565.7**	565.7	565.7	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**86.1**	-	-	**18.9**	18.4	**18.8**	**86.1**	86.1	86.1	-	-	-
Plague	**-**	-	-	**0**	0	**0**	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	**0**	0	**0**	**-**	-	-	-	-	-
Whooping Cough	**0**	-	-	**1.6**	1.5	**1.4**	**-**	-	-	-	-	-
Diphtheria	**0**	-	-	**1.2**	1.2	**1.3**	**-**	-	-	-	-	-
Tuberculosis (all forms)	**227.9**	-	-	**59.6**	58.2	**-**	**194.9**	194.9	194.9	-	-	-
Malaria	**36.6**	-	-	**125.5**	122.8	**128.1**	**-**	-	-	-	-	-
Influenza	**67.5**	-	-	**30**	29.3	**29**	**57.1**	57.1	57.1	-	-	-
Smallpox	**3.8**	-	-	**0.4**	0.4	**0.5**	**-**	-	-	-	-	-
Measles	**1.5**	-	-	**0.6**	0.6	**0.6**	**1.1**	1.1	1.1	-	-	-
Typhus Fever	**-**	-	-	**0**	0	**0**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**182.7**	-	-	**143.1**	139.7	**-**	**143.1**	143.1	143.1	-	-	-
Cholera	**0**	-	-	**-**	-	**0.3**	**-**	-	-	-	-	-
Predicted Mortality	**616.6 (606.1)**	-	-	**381**	372.2	**179.9**	**482.3**	482.3	482.3	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.53: *Sweden - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0.4**	**0.4**	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**1.2**	**1.6**	1.6	1.6	1.6	1.6	1.2	1.2	1.2	1.1	-	-
Whooping Cough	**0.3**	**0.7**	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.4	-	-
Diphtheria	**0.2**	**0.4**	0.4	0.4	0.4	0.4	0.2	0.1	0.1	0.4	-	-
Tuberculosis (all forms)	**73.3**	**70.9**	70.9	71	70.9	-	73.3	75.3	75.3	69.1	-	-
Malaria	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Influenza	**5.2**	**5**	5	5	5	5	5.2	5.6	5.7	4.3	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**0.3**	**0.3**	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	-	-
Typhus Fever	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**44.4**	**64.8**	64.8	65	64.8	-	44.4	39.4	39.3	54.6	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**125.3 (125.3)**	**144.1**	144.1	144.4	144.1	8.4	125.3	122.8	122.8	130.4	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0.4**	**0.3**	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-	-
Plague	**0**	**0**	0	0	0	-	-	-	-	-	-	-
Scarlet Fever	**1.2**	**1.1**	1.1	1.2	1.2	1	0.7	0.7	0.7	0.7	-	-
Whooping Cough	**0.3**	**0.8**	0.7	1	1.1	1	0.4	0.3	0.3	0.6	-	-
Diphtheria	**0.2**	**0.6**	0.6	0.9	0.9	1.1	0.5	0.4	0.4	0.8	-	-
Tuberculosis (all forms)	**73.3**	**69.3**	69	71.6	71.5	-	68.4	69.5	69.5	66.3	-	-
Malaria	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Influenza	**5.2**	**3.2**	3.2	6.8	6.8	5.8	4.7	4.8	4.8	4.6	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**0.3**	**0.2**	0.2	0.4	0.4	0.4	0.2	0.2	0.2	0.2	-	-
Typhus Fever	**0**	**0**	0	0.1	0.1	0.1	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**44.4**	**58**	57.8	66.3	66.3	-	40.9	38	38	46.6	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**125.3 (125.3)**	**133.5**	132.9	148.8	148.7	9.7	116.3	114.3	114.3	120.2	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.54: *Switzerland - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0.9**	**0.4**	0.4	0.4	0.4	0.4	0.9	1.2	1.2	0.4	-	-
Plague	**0**	**-**	-	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.1**	**0.7**	0.7	0.7	0.7	0.7	0.1	0	0	0.2	-	-
Whooping Cough	**1.1**	**3.2**	3.2	3.2	3.2	3.2	0.8	0.6	0.6	1.1	-	-
Diphtheria	**0.1**	**1**	1	1	1	1	0.2	0.1	0.2	0.2	-	-
Tuberculosis (all forms)	**69.1**	**78.2**	77.4	78.1	77.4	-	69.1	66.6	66.6	74	-	-
Malaria	**0**	**-**	-	0	0	0	-	-	-	-	-	-
Influenza	**18.7**	**37.7**	37.3	37.7	37.3	37.3	18.7	17.2	17.2	21.5	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**6.1**	**1.9**	1.9	1.9	1.9	1.9	2	2.2	2.2	1.7	-	-
Typhus Fever	**0**	**-**	-	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**47.7**	**69.6**	69	69.6	69	-	47.7	45.8	45.8	51.4	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**143.8 (143.8)**	**192.7**	190.8	192.6	190.8	44.4	139.4	133.8	133.8	150.5	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0.9**	**0.5**	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.3	-	-
Plague	**0**	**-**	-	0	0	-	-	-	-	-	-	-
Scarlet Fever	**0.1**	**0.4**	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.2	-	-
Whooping Cough	**1.1**	**2.3**	2.3	1.9	1.9	2	0.5	0.4	0.4	0.7	-	-
Diphtheria	**0.1**	**2.2**	2.2	2.6	2.5	2.7	1.3	1.3	1.3	1.3	-	-
Tuberculosis (all forms)	**69.1**	**77.3**	76.6	79.9	79.3	-	71.5	69.6	69.6	75.2	-	-
Malaria	**0**	**-**	-	0	0	0	-	-	-	-	-	-
Influenza	**18.7**	**21.1**	20.9	20.9	20.8	19.8	12.5	11.6	11.6	14.4	-	-
Smallpox	**0**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**6.1**	**1.1**	1.1	0.5	0.5	0.5	0.5	0.5	0.5	0.4	-	-
Typhus Fever	**0**	**-**	-	0	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**47.7**	**61.2**	60.7	59.6	59.2	-	43.2	41.9	41.9	45.7	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**143.8 (143.8)**	**166.2**	164.8	166.5	165.3	26	130.3	126.3	126.3	138.4	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.55: *Thailand - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**34.9**	-	-	-	-	**4.8**	**34.9**	34.9	34.9	-	-	-
Plague	-	-	-	-	-	**0.3**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0.1**	**0**	0	0	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.8**	**0**	0	0	-	-	-
Diphtheria	**5.8**	-	-	-	-	**0.8**	**5.8**	5.8	5.8	-	-	-
Tuberculosis (all forms)	**256.1**	-	-	-	-	-	**256.1**	256.1	256.1	-	-	-
Malaria	**30.1**	-	-	-	-	**271.2**	-	-	-	-	-	-
Influenza	**0.5**	-	-	-	-	**13.6**	**0.5**	0.5	0.5	-	-	-
Smallpox	**0.2**	-	-	-	-	**0.6**	-	-	-	-	-	-
Measles	**4.5**	-	-	-	-	**26.7**	**4.5**	4.5	4.5	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**163.1**	-	-	-	-	-	**163.1**	163.1	163.1	-	-	-
Cholera	**1**	-	-	-	-	**1**	-	-	-	-	-	-
Predicted Mortality	**506.4 (496.2)**	-	-	-	-	**319.9**	**464.9**	464.9	464.9	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**34.9**	-	-	-	-	**4.5**	**19.9**	19.9	19.9	-	-	-
Plague	-	-	-	-	-	**0.2**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0.2**	**0.1**	0.1	0.1	-	-	-
Whooping Cough	**0**	-	-	-	-	**1.1**	**0.1**	0.1	0.1	-	-	-
Diphtheria	**5.8**	-	-	-	-	**1**	**4**	4	4	-	-	-
Tuberculosis (all forms)	**256.1**	-	-	-	-	-	**233**	233	233	-	-	-
Malaria	**30.1**	-	-	-	-	**291.9**	-	-	-	-	-	-
Influenza	**0.5**	-	-	-	-	**13**	**1**	1	1	-	-	-
Smallpox	**0.2**	-	-	-	-	**12**	-	-	-	-	-	-
Measles	**4.5**	-	-	-	-	**9.4**	**3.7**	3.7	3.7	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**163.1**	-	-	-	-	-	**155.5**	155.5	155.5	-	-	-
Cholera	**1**	-	-	-	-	**8.3**	-	-	-	-	-	-
Predicted Mortality	**506.4 (496.2)**	-	-	-	-	**341.5**	**417.2**	417.2	417.2	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.56: *United Kingdom - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0.3**	-	0.3	-	0.3	0.4	0.3	0.3	0.3	0.4	-	-
Plague	**0**	-	0	-	0	-	-	-	-	-	-	-
Scarlet Fever	**0.7**	-	0.4	-	0.4	0.5	0.7	0.8	0.8	0.4	-	-
Whooping Cough	**4**	-	2.1	-	2.1	2.1	4	4.4	4.4	2.6	-	-
Diphtheria	**13.5**	-	6.8	-	6.8	6.9	13.5	13.7	13.7	12.9	-	-
Tuberculosis (all forms)	**106.7**	-	69.1	-	69.2	-	106.6	106.3	106.3	109.2	-	-
Malaria	**0**	-	0.1	-	0.1	0.1	-	-	-	-	-	-
Influenza	**35.2**	-	29	-	29	29.1	31.3	31.1	31.1	31.8	-	-
Smallpox	**0.1**	-	0	-	0	0	-	-	-	-	-	-
Measles	**8.5**	-	2.7	-	2.7	2.7	8.5	9.6	9.6	4.7	-	-
Typhus Fever	**0**	-	0	-	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**100.9**	-	71	-	71.2	-	100.9	99.6	99.6	110.1	-	-
Cholera	**0**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**269.9 (269.9)**	-	181.7	-	181.9	41.8	265.9	265.8	265.8	272.1	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0.3**	-	0.3	-	0.3	0.2	0.3	0.3	0.3	0.3	-	-
Plague	**0**	-	0	-	0	-	-	-	-	-	-	-
Scarlet Fever	**0.7**	-	0.4	-	0.4	0.3	0.4	0.4	0.4	0.4	-	-
Whooping Cough	**4**	-	2.1	-	3	3	5.1	5.2	5.2	4.8	-	-
Diphtheria	**13.5**	-	6.8	-	4.4	4.1	6.5	6.5	6.5	6.5	-	-
Tuberculosis (all forms)	**106.7**	-	69.1	-	63	-	100.5	100	100	104.5	-	-
Malaria	**0**	-	0.1	-	0.1	0.1	-	-	-	-	-	-
Influenza	**35.2**	-	29	-	16	16.4	15.2	15.1	15.1	15.6	-	-
Smallpox	**0.1**	-	0	-	0	0	-	-	-	-	-	-
Measles	**8.5**	-	2.7	-	1.9	1.5	2.7	2.9	2.9	2.2	-	-
Typhus Fever	**0**	-	0	-	0	0	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**100.9**	-	71	-	56.3	-	77.8	78	78	76.5	-	-
Cholera	**0**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**269.9 (269.9)**	-	181.7	-	145.4	25.6	208.7	208.4	208.4	210.7	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.57: *United States (Mainland) - IVS/LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0.4**	**1.1**	1.1	**1.1**	1.1	**0**	**0.4**	0.4	0.4	-	-	-
Plague	**0**	**0**	0	**0**	0	**0**	**-**	-	-	-	-	-
Scarlet Fever	**0.4**	**0.5**	0.5	**0.5**	0.5	**0.5**	**0.4**	0.4	0.4	-	-	-
Whooping Cough	**0.9**	**2.2**	2.2	**2.2**	2.2	**2.2**	**0.9**	0.9	0.9	-	-	-
Diphtheria	**0.6**	**1.1**	1.1	**1.1**	1.1	**1.1**	**0.6**	0.6	0.6	-	-	-
Tuberculosis (all forms)	**61.9**	**45.8**	45.9	**45.8**	45.9	**-**	**61.9**	61.9	61.9	-	-	-
Malaria	**0.3**	**1.1**	1.1	**1.1**	1.1	**1.1**	**-**	-	-	-	-	-
Influenza	**1.7**	**15.3**	15.3	**15.2**	15.3	**15.3**	**1.7**	1.7	3.1†	-	-	-
Smallpox	**0**	**0**	0	**0**	0	**0**	**-**	-	-	-	-	-
Measles	**0**	**0.5**	0.5	**0.5**	0.5	**0.5**	**0**	0	0.4†	-	-	-
Typhus Fever	**0.2**	**0.2**	0.2	**0.2**	0.2	**0.2**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**66**	**54.8**	55	**54.8**	55	**-**	**66**	66	66	-	-	-
Cholera	**0**	**-**	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**132.2 (132.4)**	**122.6**	122.9	**122.5**	122.9	**21**	**131.9**	131.9	133.7	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0.4**	**0.8**	0.7	**0.8**	0.8	**0**	**0.3**	0.3	0.4	-	-	-
Plague	**0**	**0**	0	**0**	0	**0**	**-**	-	-	-	-	-
Scarlet Fever	**0.4**	**0.4**	0.4	**0.4**	0.4	**0.4**	**0.2**	0.2	0.4	-	-	-
Whooping Cough	**0.9**	**1.8**	1.8	**2.1**	2.1	**1.9**	**0.9**	0.9	0.9	-	-	-
Diphtheria	**0.6**	**1**	1	**1.2**	1.1	**1**	**0.2**	0.2	0.6	-	-	-
Tuberculosis (all forms)	**61.9**	**43.5**	42.6	**43.3**	42.5	**-**	**59.5**	59.5	61.9	-	-	-
Malaria	**0.3**	**0.8**	0.8	**0.8**	0.8	**0.7**	**-**	-	-	-	-	-
Influenza	**1.7**	**14.2**	13.9	**12**	11.8	**11.7**	**2.1**	2.1	2.1	-	-	-
Smallpox	**0**	**0**	0	**0**	0	**0**	**-**	-	-	-	-	-
Measles	**0**	**1**	1	**1.1**	1.1	**0.9**	**0.2**	0.2	0.2	-	-	-
Typhus Fever	**0.2**	**0.2**	0.2	**0.2**	0.2	**0.2**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**66**	**51.7**	50.6	**51.4**	50.5	**-**	**50.5**	50.5	66	-	-	-
Cholera	**0**	**-**	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**132.2 (132.4)**	**115.4**	112.9	**113.5**	111.5	**16.9**	**113.9**	113.9	132.6	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).United States (Mainland) does not include Hawaii and Alaska.
†LoN Town Excl. Agg. & Miss.: Influenza (1941), Measles (1941)

Table C.58: *Uruguay - IVS/LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**7.2**	**7.2**	7.9	**7.2**	7.9	**7.9**	**7.2**	7.2	7.2	-	7.2	7.9
Plague	**-**	**0**	0	**0**	0	**-**	**-**	-	-	-	0	0
Scarlet Fever	**0.3**	**0.1**	0.1	**0.1**	0.1	**0.1**	**0.3**	0.3	0.3	-	0.1	0.1
Whooping Cough	**2.8**	**2.6**	2.8	**2.6**	2.8	**2.8**	**2.8**	2.8	2.8	-	2.6	2.8
Diphtheria	**10.1**	**8**	8.9	**8**	8.9	**8.9**	**10.1**	10.1	10.1	-	8	8.9
Tuberculosis (all forms)	**201.6**	**108.8**	120.1	**108.8**	120.1	**-**	**201.6**	201.6	201.6	-	108.8	120.1
Malaria	**0.1**	**0**	0	**0**	0	**0**	**-**	-	-	-	0	0
Influenza	**4.5**	**4.7**	5.2	**4.7**	5.2	**5.2**	**4.5**	4.5	4.5	-	4.7	5.2
Smallpox	**0**	**0**	0.1	**0**	0.1	**0.1**	**-**	-	-	-	0	0.1
Measles	**1.8**	**0.9**	1	**0.9**	1	**1**	**1.8**	1.8	1.8	-	0.9	1
Typhus Fever	**0**	**0**	0	**0**	0	**-**	**-**	-	-	-	0	0
Pneumonia and Bronchopneumonia	**105.7**	**82.3**	90.8	**82.3**	90.8	**-**	**105.7**	105.7	105.7	-	82.3	90.8
Cholera	**0**	**-**	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**344.1 (334.1)**	**214.6**	236.9	**214.6**	236.9	**26**	**334**	334	334	-	214.6	236.9
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**7.2**	**8.5**	9.3	**9.6**	10.5	**10.7**	**9.4**	9.4	9.4	-	8.8	9.8
Plague	**-**	**0**	0	**0**	0	**-**	**-**	-	-	-	0	0
Scarlet Fever	**0.3**	**0.1**	0.1	**0.1**	0.1	**0.1**	**0.1**	0.1	0.1	-	0.2	0.2
Whooping Cough	**2.8**	**2.5**	2.7	**3.3**	3.6	**3.9**	**4.2**	4.2	4.2	-	3.4	3.7
Diphtheria	**10.1**	**6.8**	7.4	**6.8**	7.5	**6.9**	**8.2**	8.2	8.2	-	13.2	14.8
Tuberculosis (all forms)	**201.6**	**108**	118.5	**107**	117	**-**	**193.4**	193.4	193.4	-	116.1	129.6
Malaria	**0.1**	**0**	0	**0**	0	**0**	**-**	-	-	-	0	0
Influenza	**4.5**	**3.7**	4	**5.9**	6.5	**6.1**	**2.8**	2.8	2.8	-	6.4	7.1
Smallpox	**0**	**0**	0	**0**	0	**0**	**-**	-	-	-	0.1	0.1
Measles	**1.8**	**0.9**	1	**0.9**	1	**1**	**1.2**	1.2	1.2	-	1.3	1.5
Typhus Fever	**0**	**0**	0	**0**	0	**-**	**-**	-	-	-	0	0
Pneumonia and Bronchopneumonia	**105.7**	**74.1**	81.4	**70.4**	77.3	**-**	**98.6**	98.6	98.6	-	95	106.1
Cholera	**0**	**-**	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**344.1 (334.1)**	**204.4**	224.3	**204.1**	223.6	**28.6**	**318**	318	318	-	244.3	272.9

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.59: *Venezuela, Rb - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	**8.7**	8.5	-	-	-	-	-	-	-	9	8.5
Plague	**0**	**0**	0	-	-	0	-	-	-	-	0	0
Scarlet Fever	**0**	**0**	0	-	-	-	-	-	-	-	0	0
Whooping Cough	**0**	**5.7**	5.6	-	-	-	-	-	-	-	5.9	5.6
Diphtheria	**0**	**1.8**	1.8	-	-	-	-	-	-	-	1.9	1.8
Tuberculosis (all forms)	**377.4**	**94.6**	93	-	-	-	-	-	-	-	97.9	93
Malaria	**21.4**	**34**	33.4	-	-	-	-	-	-	-	35.2	33.4
Influenza	**14.8**	**2.8**	2.8	-	-	-	-	-	-	-	2.9	2.8
Smallpox	**0**	**0.5**	0.5	-	-	0.5	-	-	-	-	0.5	0.5
Measles	**0**	**1.5**	1.5	-	-	-	-	-	-	-	1.5	1.5
Typhus Fever	**0.1**	**0.1**	0.1	-	-	-	-	-	-	-	0.1	0.1
Pneumonia and Bronchopneumonia	**72**	**40.4**	39.7	-	-	-	-	-	-	-	41.8	39.7
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**495.6 (485.7)**	**190.1**	186.8	-	-	0.6	-	-	-	-	196.7	186.8
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	**7.4**	7.1	-	-	-	-	-	-	-	9	8.7
Plague	**0**	**0**	0	-	-	0	-	-	-	-	0	0
Scarlet Fever	**0**	**0**	0	-	-	-	-	-	-	-	0.1	0.1
Whooping Cough	**0**	**7.8**	7.4	-	-	-	-	-	-	-	9.9	9.6
Diphtheria	**0**	**2.2**	2	-	-	-	-	-	-	-	1.7	1.6
Tuberculosis (all forms)	**377.4**	**97.1**	93	-	-	-	-	-	-	-	99.8	96.6
Malaria	**21.4**	**34.8**	33.3	-	-	-	-	-	-	-	80.6	78.6
Influenza	**14.8**	**3.9**	3.7	-	-	-	-	-	-	-	12.9	12.7
Smallpox	**0**	**0.4**	0.4	-	-	0.8	-	-	-	-	1.8	1.7
Measles	**0**	**2.8**	2.6	-	-	-	-	-	-	-	6.4	6.3
Typhus Fever	**0.1**	**0.2**	0.1	-	-	-	-	-	-	-	0	0
Pneumonia and Bronchopneumonia	**72**	**38.6**	37	-	-	-	-	-	-	-	48.4	46.9
Cholera	**-**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**495.6 (485.7)**	**195**	186.7	-	-	0.8	-	-	-	-	270.8	262.8

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

C.3.5 Mortality Rates by Country - Extended Sample

The following tables present mortality rates of the 13 infectious diseases across sources for 77 additional countries. The structure corresponds to the previous tables in Appendix C.3.4. Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information ("All"), excluding *aggregates of towns* when averaging ("Excl. Agg."), and additionally excluding years when not all towns have information ("Excl. Agg & Miss."). We refer to *aggregates of towns* when the original data present a mortality rate for more than one town (e.g. "126 Engl. Towns" in WHO, 1951). Last, we present only the average across town aggregates ("Agg. Only"). The number in parentheses after the published predicted mortality instrument in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 for the authors' data. Data for the period 1935-1937 is drawn from the League of Nation's "Annual Epidemiological report for the Year 1937" (LNHO, 1939) and after from LoN V2, respectively LoN V1 for town-level data.

Table C.60: *Algeria - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**20.9**	-	-	-	-	-	**20.9**	20.9	20.9	-	-	-
Plague	-	-	-	-	-	**0†**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**0**	0	0	-	-	-
Whooping Cough	**7.1**	-	-	-	-	-	**7.1**	7.1	7.1	-	-	-
Diphtheria	**3.5**	-	-	-	-	-	**3.5**	3.5	3.5	-	-	-
Tuberculosis (all forms)	**127.3**	-	-	-	-	-	**127.3**	127.3	127.3	-	-	-
Malaria	**5.7**	-	-	-	-	-	**7.9†**	7.9†	7.9†	-	-	-
Influenza	**6.7**	-	-	-	-	-	**6.7**	6.7	6.7	-	-	-
Smallpox	**0.4**	-	-	-	-	-	-	-	-	-	-	-
Measles	**44.7**	-	-	-	-	-	**44.7**	44.7	44.7	-	-	-
Typhus Fever	-	-	-	-	-	-	**1.6†**	1.6†	1.6†	-	-	-
Pneumonia and Bronchopneumonia	**86.2**	-	-	-	-	-	**86.2**	86.2	86.2	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**312.5 (302.5)**	-	-	-	-	**0**	**305.9**	305.9	305.9	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**20.9**	-	-	-	-	-	**20**	20	20	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**0.1**	0.1	0.1	-	-	-
Whooping Cough	**7.1**	-	-	-	-	-	**6.8**	6.8	6.8	-	-	-
Diphtheria	**3.5**	-	-	-	-	-	**3**	3	3	-	-	-
Tuberculosis (all forms)	**127.3**	-	-	-	-	-	**184.2**	184.2	184.2	-	-	-
Malaria	**5.7**	-	-	-	-	-	**7.9**	7.9	7.9	-	-	-
Influenza	**6.7**	-	-	-	-	-	**2.7**	2.7	2.7	-	-	-
Smallpox	**0.4**	-	-	-	-	-	-	-	-	-	-	-
Measles	**44.7**	-	-	-	-	-	**33.1**	33.1	33.1	-	-	-
Typhus Fever	-	-	-	-	-	-	**0.8**	0.8	0.8	-	-	-
Pneumonia and Bronchopneumonia	**86.2**	-	-	-	-	-	**97.7**	97.7	97.7	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**312.5 (302.5)**	-	-	-	-	**0**	**356.3**	356.3	356.3	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN V2 No. Deaths: Plague (1946)

LoN Town All: Malaria (1937), Typhus Fever (1937)

LoN Town Excl. Agg.: Malaria (1937), Typhus Fever (1937)

LoN Town Excl. Agg. & Miss.: Malaria (1937), Typhus Fever (1937)

Table C.61: *Angola - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**1.1**	-	-	-	-	-	-
Smallpox	**9.2**	-	-	-	-	**0.1**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (39.2)**	-	-	-	-	**1.7**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.8**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**2.9**	-	-	-	-	-	-
Smallpox	**9.2**	-	-	-	-	**0.3**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (39.2)**	-	-	-	-	**4.7**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.62: *Barbados - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**12.4**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**1.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**1.6**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**158**	-	-	-	-	**0.5**†	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**10.5**†	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**9.4**†	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**198 (188)**	-	-	-	-	**35.5**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**10.4**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**4.2**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**158**	-	-	-	-	**0.2**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**11.1**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**3.1**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**198 (188)**	-	-	-	-	**29.9**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN V2 No. Deaths: Malaria (1944), Influenza (1944), Measles (1944)

Table C.63: *Belize - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**20.5**†	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**598.7**	-	-	-	-	**109.3**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**638.7 (628.7)**	-	-	-	-	**129.8**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**22.1**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**598.7**	-	-	-	-	**77.3**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**638.7 (628.7)**	-	-	-	-	**99.4**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1945)

Table C.64: *Bermuda - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**15.6**†	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**26.6**†	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**6.2**†	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**0**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**30 (30)**	-	-	-	-	**48.4**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**5.5**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**26.6**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**3**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**0**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**30 (30)**	-	-	-	-	**35.1**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1941), Whooping Cough (1944), Diphtheria (1941)

Table C.65: *Bolivia - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	4.8	6
Plague	-	-	-	-	-	**1.1**	-	-	-	-	0.5	0.6
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	0.5	0.6
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	30.5	37.7
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	0.2	0.2
Tuberculosis (all forms)	**245.1**	-	-	-	-	-	-	-	-	-	24	29.7
Malaria	**448.6**	-	-	-	-	-	-	-	-	-	5.8	7.2
Influenza	**153.8**	-	-	-	-	-	-	-	-	-	11.2	13.8
Smallpox	**0**	-	-	-	-	-	-	-	-	-	0.5	0.7
Measles	**0**	-	-	-	-	-	-	-	-	-	0.7	0.9
Typhus Fever	-	-	-	-	-	-	-	-	-	-	3.7	4.6
Pneumonia and Bronchopneumonia	**92.5**	-	-	-	-	-	-	-	-	-	48.3	59.5
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**950 (940)**	-	-	-	-	**1.1**	-	-	-	-	130.7	161.4
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	5.2	6.2
Plague	-	-	-	-	-	**0.7**	-	-	-	-	0.3	0.4
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	2.3	2.8
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	35.4	42.8
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	0.5	0.6
Tuberculosis (all forms)	**245.1**	-	-	-	-	-	-	-	-	-	24.9	30.1
Malaria	**448.6**	-	-	-	-	-	-	-	-	-	7.7	9.3
Influenza	**153.8**	-	-	-	-	-	-	-	-	-	10.1	12.2
Smallpox	**0**	-	-	-	-	-	-	-	-	-	2	2.4
Measles	**0**	-	-	-	-	-	-	-	-	-	3.5	4.2
Typhus Fever	-	-	-	-	-	-	-	-	-	-	2.3	2.8
Pneumonia and Bronchopneumonia	**92.5**	-	-	-	-	-	-	-	-	-	47.4	57.3
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**950 (940)**	-	-	-	-	**0.7**	-	-	-	-	141.6	171.1

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.66: *Botswana - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**0.7**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**-**	-	-	-	-	-	-
Smallpox	**3.5**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (33.5)**	-	-	-	-	**0.7**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**11.5**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.4**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**3**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**-**	-	-	-	-	-	-
Smallpox	**3.5**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (33.5)**	-	-	-	-	**15.2**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.67: *Bulgaria - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	2.5	0.5	**2.5**	0.5	**1.9**	-	-	-	-	-	-
Plague	-	0	0	**0**	0	-	-	-	-	-	-	-
Scarlet Fever	**0**	6.7	1.4	**6.6**	1.4	**4.4**	-	-	-	-	-	-
Whooping Cough	**0**	1.5	0.3	**1.5**	0.3	**1.3**	-	-	-	-	-	-
Diphtheria	**0**	6.5	1.4	**6.4**	1.4	**5.4**	-	-	-	-	-	-
Tuberculosis (all forms)	**167.8**	173.1	36.9	**170.4**	36.9	-	-	-	-	-	-	-
Malaria	**1.1**	4.1	0.9	**4**	0.9	-	-	-	-	-	-	-
Influenza	**9.6**	10	2.1	**9.9**	2.1	**0.6**	-	-	-	-	-	-
Smallpox	**0**	0	0	**0**	0	-	-	-	-	-	-	-
Measles	**0**	1.6	0.4	**1.6**	0.4	**3.4**	-	-	-	-	-	-
Typhus Fever	-	0.2	0	**0.2**	0	**0.2**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**158.8**	180	38.3	**177.2**	38.3	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**338.4 (337.3)**	386.2	82.3	**380.3**	82.3	**17.1**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	2.5	0.4	**3.2**	0.7	**1.6**	-	-	-	-	-	-
Plague	-	0	0	**0**	0	-	-	-	-	-	-	-
Scarlet Fever	**0**	6.7	0.8	**7.3**	1.4	**3.8**	-	-	-	-	-	-
Whooping Cough	**0**	1.5	0.3	**2.3**	0.5	**1**	-	-	-	-	-	-
Diphtheria	**0**	6.5	1.6	**6.1**	1.5	**5.6**	-	-	-	-	-	-
Tuberculosis (all forms)	**167.8**	173.1	35.5	**160**	37	-	-	-	-	-	-	-
Malaria	**1.1**	4.1	1.1	**5.7**	1.2	-	-	-	-	-	-	-
Influenza	**9.6**	10	1.8	**8.7**	2.1	**0.4**	-	-	-	-	-	-
Smallpox	**0**	0	0	**0**	0	-	-	-	-	-	-	-
Measles	**0**	1.6	0.5	**1.5**	0.3	**1.1**	-	-	-	-	-	-
Typhus Fever	-	0.2	0.3	**1**	0.3	**1.3**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**158.8**	180	36.6	**157.5**	37.1	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**338.4 (337.3)**	386.2	78.9	**353.3**	82.1	**14.8**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.68: *Cambodia (French Indo-China) - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.4**	-	-	-	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**359**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**1.8**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	**1.3**	-	-	-	-	-	-
Predicted Mortality	**399 (389)**	-	-	-	-	**3.7**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Plague	-	-	-	-	-	**0.1**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**359**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**2.8**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	**0.4**	-	-	-	-	-	-
Predicted Mortality	**399 (389)**	-	-	-	-	**4.1**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.69: *Cameroon (French) - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**1.5**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0.1**†	-	-	-	-	-	-
Smallpox	**4.3**	-	-	-	-	**0.1**†	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (34.3)**	-	-	-	-	**1.7**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**1.8**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0.3**	-	-	-	-	-	-
Smallpox	**4.3**	-	-	-	-	**3.5**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (34.3)**	-	-	-	-	**5.6**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Influenza (1939), Smallpox (1939)

Table C.70: *Cape Verde - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**8.8**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**91**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**16**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**116.4**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**10.5**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**10.8**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**1.6**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**137.8**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**33.2**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**193.9**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.71: *Central African Republic - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**2.5**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0.2**	-	-	-	-	-	-
Smallpox	**48.3**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (78.3)**	-	-	-	-	**2.7**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**1.9**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0**	-	-	-	-	-	-
Smallpox	**48.3**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (78.3)**	-	-	-	-	**1.9**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.72: *Chad - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**2.1**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0**	-	-	-	-	-	-
Smallpox	**1.2**	-	-	-	-	**0.1**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (31.2)**	-	-	-	-	**2.3**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**1**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0**	-	-	-	-	-	-
Smallpox	**1.2**	-	-	-	-	**5.8**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (31.2)**	-	-	-	-	**6.9**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.73: *Congo, Rep. - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**†	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**†	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.3**†	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.4**†	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**4.8**†	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0**†	-	-	-	-	-	-
Smallpox	**0.8**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**†	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30.8)**	-	-	-	-	**5.4**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**8.5**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0.1**	-	-	-	-	-	-
Smallpox	**0.8**	-	-	-	-	**0.3**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30.8)**	-	-	-	-	**9.8**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1944), Scarlet Fever (1944), Whooping Cough (1945), Diphtheria (1944), Malaria (1945), Influenza (1945), Measles (1944)

Table C.74: *Cuba - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	16.4†	16.2†
Plague	**-**	-	-	-	-	-	-	-	-	-	0†	0†
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	0†	0†
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	2.3†	2.3†
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	1.3†	1.2†
Tuberculosis (all forms)	**155.1**	-	-	-	-	-	-	-	-	-	76.9†	76†
Malaria	**-**	-	-	-	-	-	-	-	-	-	17†	16.8†
Influenza	**4**	-	-	-	-	-	-	-	-	-	6†	5.9†
Smallpox	**0**	-	-	-	-	-	-	-	-	-	0†	0†
Measles	**0**	-	-	-	-	-	-	-	-	-	0.4†	0.4†
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	0†	0†
Pneumonia and Bronchopneumonia	**100.6**	-	-	-	-	-	-	-	-	-	119.6†	118.1†
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (259.7)**	-	-	-	-	-	-	-	-	-	239.9	237
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	13	12.7
Plague	**-**	-	-	-	-	-	-	-	-	-	0	0
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	0.1	0
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	2.9	3.1
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	2.6	2.5
Tuberculosis (all forms)	**155.1**	-	-	-	-	-	-	-	-	-	78.3	76.9
Malaria	**-**	-	-	-	-	-	-	-	-	-	23.1	22.8
Influenza	**4**	-	-	-	-	-	-	-	-	-	5.6	5.5
Smallpox	**0**	-	-	-	-	-	-	-	-	-	0	0
Measles	**0**	-	-	-	-	-	-	-	-	-	1.2	1.2
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	0	0
Pneumonia and Bronchopneumonia	**100.6**	-	-	-	-	-	-	-	-	-	104.4	102.8
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (259.7)**	-	-	-	-	-	-	-	-	-	231	227.6

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†BioStat Rate: Typhoid and Paratyphoid Fevers (1936), Plague (1933), Scarlet Fever (1935), Whooping Cough (1936), Diphtheria (1936), Tuberculosis (all forms) (1936), Malaria (1936), Influenza (1936), Smallpox (1933), Measles (1936), Typhus Fever (1933), Pneumonia and Bronchopneumonia (1936)
BioStat No. Deaths: Typhoid and Paratyphoid Fevers (1936), Plague (1933), Scarlet Fever (1935), Whooping Cough (1936), Diphtheria (1936), Tuberculosis (all forms) (1936), Malaria (1936), Influenza (1936), Smallpox (1933), Measles (1936), Typhus Fever (1933), Pneumonia and Bronchopneumonia (1936)

Table C.75: *Czech Republic (Czechoslovakia) - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	-	6.3†	7.1†	-	-	-	**1.7**	1.7	1.7	-	-	-
Plague	-	0†	0†	-	-	-	-	-	-	-	-	-
Scarlet Fever	-	3.2†	3.6†	-	-	-	**1.5**	1.5	1.5	-	-	-
Whooping Cough	-	3.7†	4.2†	-	-	-	**0.3**	0.3	0.3	-	-	-
Diphtheria	-	15.5†	17.4†	-	-	-	**4.8**	4.8	4.8	-	-	-
Tuberculosis (all forms)	-	124†	138.9†	-	-	-	**131.2**	131.2	131.2	-	-	-
Malaria	-	0.1†	0.2†	-	-	-	-	-	-	-	-	-
Influenza	-	11.6†	13†	-	-	-	**6.4**	6.4	6.4	-	-	-
Smallpox	-	0†	0†	-	-	-	-	-	-	-	-	-
Measles	-	4†	4.4†	-	-	-	**0.4**	0.4	0.4	-	-	-
Typhus Fever	-	0†	0†	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	-	128.4†	143.8†	-	-	-	**110.4**	110.4	110.4	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- ()**	296.8	332.5	-	-	-	**256.7**	256.7	256.7	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	-	6.3	7.1	-	-	-	**2.2**	2.2	2.2	-	-	-
Plague	-	0	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	-	3.2	3.6	-	-	-	**1.5**	1.5	1.5	-	-	-
Whooping Cough	-	3.7	4.2	-	-	-	**3.1**	3.1	3.1	-	-	-
Diphtheria	-	15.5	17.4	-	-	-	**6.7**	6.7	6.7	-	-	-
Tuberculosis (all forms)	-	124	138.9	-	-	-	**151.8**	151.8	151.8	-	-	-
Malaria	-	0.1	0.2	-	-	-	-	-	-	-	-	-
Influenza	-	11.6	13	-	-	-	**5.2**	5.2	5.2	-	-	-
Smallpox	-	0	0	-	-	-	-	-	-	-	-	-
Measles	-	4	4.4	-	-	-	**1.2**	1.2	1.2	-	-	-
Typhus Fever	-	0	0	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	-	128.4	143.8	-	-	-	**106.4**	106.4	106.4	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- ()**	296.8	332.5	-	-	-	**278**	278	278	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†IVS V1 Rate: Typhoid and Paratyphoid Fevers (1937), Plague (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Smallpox (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)
IVS V1 No. Deaths: Typhoid and Paratyphoid Fevers (1937), Plague (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Smallpox (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

Table C.76: *Dominica - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**8.9†**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**126.6†**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**1158**	-	-	-	-	**158.7**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**24.3**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**1198 (1188)**	-	-	-	-	**318.5**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**6.5**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**68.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**1158**	-	-	-	-	**133.4**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**17.1**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**1198 (1188)**	-	-	-	-	**225.1**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1939), Whooping Cough (1941)

Table C.77: *Dominican Republic - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**16.7**	-	-	-	-	17	16.7
Plague	-	-	-	-	-	-	-	-	-	-	0†	0†
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	0†	0†
Whooping Cough	**0**	-	-	-	-	**8.6**	-	-	-	-	8.8	8.6
Diphtheria	**0**	-	-	-	-	**2.1**	-	-	-	-	2.1	2.1
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	62.8	61.7
Malaria	**158**	-	-	-	-	**44.1**	-	-	-	-	152.1	149.5
Influenza	**30**	-	-	-	-	**4.8**	-	-	-	-	6.1	6
Smallpox	**0**	-	-	-	-	-	-	-	-	-	0.1	0.1
Measles	**0**	-	-	-	-	-	-	-	-	-	0.1†	0.1†
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	0†	0†
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	55.5	54.6
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**198 (188)**	-	-	-	-	**76.3**	-	-	-	-	304.6	299.4
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**10.6**	-	-	-	-	13.8	13.5
Plague	-	-	-	-	-	-	-	-	-	-	0	0
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	0	0
Whooping Cough	**0**	-	-	-	-	**3.7**	-	-	-	-	4.1	4
Diphtheria	**0**	-	-	-	-	**2.4**	-	-	-	-	2.3	2.3
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	64.4	62.7
Malaria	**158**	-	-	-	-	**60.4**	-	-	-	-	118.9	115.5
Influenza	**30**	-	-	-	-	**2.8**	-	-	-	-	6.8	6.6
Smallpox	**0**	-	-	-	-	-	-	-	-	-	0.1	0.1
Measles	**0**	-	-	-	-	-	-	-	-	-	0.1	0.1
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	0	0
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	53.1	51.6
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**198 (188)**	-	-	-	-	**79.9**	-	-	-	-	263.7	256.3

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†BioStat Rate: Plague (1941), Scarlet Fever (1941), Measles (1941), Typhus Fever (1941)
BioStat No. Deaths: Plague (1941), Scarlet Fever (1941), Measles (1941), Typhus Fever (1941)

Table C.78: *Egypt, Arab Rep. - IVS 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**26.9**	**15**	4.6	15	4.6	5.5	26.9	26.9	26.9	-	-	-
Plague	**1.8**	**1.8**	0.5	1.8	0.5	1.4	-	-	-	-	-	-
Scarlet Fever	**0.1**	**0**	0	0	0	0	0	0	0.1	-	-	-
Whooping Cough	**1.3**	**1.4**	0.4	1.4	0.4	1	1.3	1.3	1.3	-	-	-
Diphtheria	**17.6**	**16.9**	5.2	16.9	5.2	7	17.6	17.6	17.6	-	-	-
Tuberculosis (all forms)	**73.3**	**53.1**	16.2	53.1	16.2	-	73.3	73.3	73.3	-	-	-
Malaria	**0.1**	**0.9**	0.3	0.9	0.3	0.4	-	-	-	-	-	-
Influenza	**1.9**	**2.3**	0.7	2.3	0.7	1.1	1.9	1.9	1.9	-	-	-
Smallpox	**0.3**	**0**	0	0	0	0	-	-	-	-	-	-
Measles	**21.4**	**37.5**	11.5	37.6	11.5	21.3	21.4	21.4	21.4	-	-	-
Typhus Fever	**5.5**	**5.5**	1.7	5.5	1.7	5.1	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**220.2**	**208.2**	63.6	208.3	63.6	-	220.2	220.2	220.2	-	-	-
Cholera	**0**	**-**	-	-	-	0	-	-	-	-	-	-
Predicted Mortality	**373.3 (370.3)**	**342.6**	104.6	342.8	104.6	42.9	362.5	362.5	362.5	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**26.9**	**13.9**	4.3	15.4	4.8	5.4	27.1	27.1	27.1	-	-	-
Plague	**1.8**	**1.9**	0.6	1.4	0.4	0.7	-	-	-	-	-	-
Scarlet Fever	**0.1**	**0**	0	0	0	0	0	0	0	-	-	-
Whooping Cough	**1.3**	**1.7**	0.5	1.3	0.4	0.6	0.9	0.9	0.9	-	-	-
Diphtheria	**17.6**	**19.9**	6.2	18	5.6	7.7	20.9	20.9	20.9	-	-	-
Tuberculosis (all forms)	**73.3**	**62.6**	19.6	62.4	19.6	-	87.9	87.9	87.9	-	-	-
Malaria	**0.1**	**21.3**	6.8	10.5	3.4	2.7	-	-	-	-	-	-
Influenza	**1.9**	**2.3**	0.7	2	0.6	1	1.5	1.5	1.5	-	-	-
Smallpox	**0.3**	**1.9**	0.6	1.8	0.6	1.1	-	-	-	-	-	-
Measles	**21.4**	**26.8**	8.3	32.8	10.3	14.1	22.7	22.7	22.7	-	-	-
Typhus Fever	**5.5**	**48.7**	15.5	23.6	7.5	17	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**220.2**	**176**	54.7	173.6	53.8	-	194.4	194.4	194.4	-	-	-
Cholera	**0**	**-**	-	-	-	0	-	-	-	-	-	-
Predicted Mortality	**373.3 (370.3)**	**376.9**	117.9	342.7	107	50.3	355.4	355.4	355.4	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.79: *Eritrea - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.7**†	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**†	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.4**†	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**8.3**†	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**†	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**3.6**†	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**13**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**3.9**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**5.9**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**10.9**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1942), Whooping Cough (1942), Diphtheria (1942), Malaria (1942), Measles (1942), Typhus Fever (1942)

Table C.80: *Estonia - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	6.5†	6.5†	-	-	-	**2.1†**	2.1†	2.1†	-	-	-
Plague	-	0†	0†	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	3.9†	3.9†	-	-	-	**4.1†**	4.1†	4.1†	-	-	-
Whooping Cough	**0**	8.9†	9†	-	-	-	**2.1†**	2.1†	2.1†	-	-	-
Diphtheria	**0**	10.8†	10.9†	-	-	-	**6.9†**	6.9†	6.9†	-	-	-
Tuberculosis (all forms)	**185**	160.8†	162.1†	-	-	-	**205.8†**	205.8†	205.8†	-	-	-
Malaria	**0**	0†	0†	-	-	-	-	-	-	-	-	-
Influenza	**14**	16.5†	16.6†	-	-	-	**10.3†**	10.3†	10.3†	-	-	-
Smallpox	**0**	0.3†	0.3†	-	-	-	-	-	-	-	-	-
Measles	**0**	1†	1†	-	-	-	**0†**	0†	0†	-	-	-
Typhus Fever	-	0†	0†	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**75.5**	81.5†	82.2†	-	-	-	**86.5†**	86.5†	86.5†	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**274.5 (274.5)**	290.2	292.5	-	-	-	**317.8**	317.8	317.8	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	6.5	6.5	-	-	-	**8.4**	8.4	8.4	-	-	-
Plague	-	0	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	3.9	3.9	-	-	-	**2.6**	2.6	2.6	-	-	-
Whooping Cough	**0**	8.9	9	-	-	-	**1.4**	1.4	1.4	-	-	-
Diphtheria	**0**	10.8	10.9	-	-	-	**7.9**	7.9	7.9	-	-	-
Tuberculosis (all forms)	**185**	160.8	162.1	-	-	-	**195.1**	195.1	195.1	-	-	-
Malaria	**0**	0	0	-	-	-	-	-	-	-	-	-
Influenza	**14**	16.5	16.6	-	-	-	**17.7**	17.7	17.7	-	-	-
Smallpox	**0**	0.3	0.3	-	-	-	-	-	-	-	-	-
Measles	**0**	1	1	-	-	-	**1.3**	1.3	1.3	-	-	-
Typhus Fever	-	0	0	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**75.5**	81.5	82.2	-	-	-	**96**	96	96	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**274.5 (274.5)**	290.2	292.5	-	-	-	**330.5**	330.5	330.5	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†IVS V1 Rate: Typhoid and Paratyphoid Fevers (1937), Plague (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Smallpox (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

IVS V1 No. Deaths: Typhoid and Paratyphoid Fevers (1937), Plague (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Smallpox (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town All: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Influenza (1937), Measles (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Influenza (1937), Measles (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Influenza (1937), Measles (1937), Pneumonia and Bronchopneumonia (1937)

Table C.81: *Faeroe Islands - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**3.7**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**3.7**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.3**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0.9**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**9.8**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**1.8**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**7.3**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.8**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**22**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.82: *French Polynesia - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**2.1**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**6.3**†	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**8.4**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**9.1**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**6.3**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**15.5**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN V2 No. Deaths: Smallpox (1939)

Table C.83: *Gabon - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**†	-	-	-	-	-	-
Plague	**-**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**1.4**†	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**1.6**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0.2**†	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.2**†	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**3.5**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**1.2**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**4.9**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0.3**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**6.6**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1944), Whooping Cough (1943), Influenza (1939), Measles (1944)

Table C.84: *Gambia, The - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	-	-
Plague	**-**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0.5**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30.5)**	-	-	-	-	**0**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	-	-
Plague	**-**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0.5**	-	-	-	-	**0.5**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30.5)**	-	-	-	-	**0.5**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.85: *Ghana - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**2**	-	-	-	-	**2**†	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (32)**	-	-	-	-	**2**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**2**	-	-	-	-	**3.2**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (32)**	-	-	-	-	**3.2**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Smallpox (1939)

Table C.86: *Grenada - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**5.7**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**158**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**198 (188)**	-	-	-	-	**5.7**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**13.5**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**158**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**198 (188)**	-	-	-	-	**13.5**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.87: *Guinea-Bissau - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**7.5**	-	-	-	-	**8.8**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (37.5)**	-	-	-	-	**9.4**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**7.5**	-	-	-	-	**2.6**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (37.5)**	-	-	-	-	**3**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.88: *Guyana - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**24.6**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**2**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**465**	-	-	-	-	**126.9**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**5.4**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**505 (495)**	-	-	-	-	**158.9**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**22.6**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**2.5**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**465**	-	-	-	-	**157.6**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**4.4**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**505 (495)**	-	-	-	-	**187**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.89: *Haiti - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.1**	-	-	-	-	1	1.1
Plague	-	-	-	-	-	-	-	-	-	-	0†	0†
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	0†	0†
Whooping Cough	**0**	-	-	-	-	**0.3**	-	-	-	-	0.3	0.3
Diphtheria	**0**	-	-	-	-	**0.3**	-	-	-	-	0.2	0.3
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	17.5	19.2
Malaria	**2.9**	-	-	-	-	**10.1**	-	-	-	-	9.2	10.1
Influenza	**4**	-	-	-	-	**0.1**	-	-	-	-	0.1	0.1
Smallpox	**0**	-	-	-	-	-	-	-	-	-	0†	0†
Measles	**0**	-	-	-	-	**0**	-	-	-	-	0	0
Typhus Fever	-	-	-	-	-	-	-	-	-	-	0†	0†
Pneumonia and Bronchopneumonia	**100.6**	-	-	-	-	-	-	-	-	-	5.1	5.6
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**117.5 (107.5)**	-	-	-	-	**11.9**	-	-	-	-	33.4	36.8
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**2.2**	-	-	-	-	1.4	1.4
Plague	-	-	-	-	-	-	-	-	-	-	0	0
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	0	0
Whooping Cough	**0**	-	-	-	-	**0.2**	-	-	-	-	0.3	0.3
Diphtheria	**0**	-	-	-	-	**0.2**	-	-	-	-	0.2	0.2
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	18.2	19.2
Malaria	**2.9**	-	-	-	-	**10.7**	-	-	-	-	14.6	15.3
Influenza	**4**	-	-	-	-	**0.7**	-	-	-	-	0.7	0.7
Smallpox	**0**	-	-	-	-	-	-	-	-	-	0	0
Measles	**0**	-	-	-	-	**0**	-	-	-	-	0	0
Typhus Fever	-	-	-	-	-	-	-	-	-	-	0	0
Pneumonia and Bronchopneumonia	**100.6**	-	-	-	-	-	-	-	-	-	4.4	4.7
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**117.5 (107.5)**	-	-	-	-	**14**	-	-	-	-	39.8	41.9

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†BioStat Rate: Plague (1943), Scarlet Fever (1943), Smallpox (1943), Typhus Fever (1943)
BioStat No. Deaths: Plague (1943), Scarlet Fever (1943), Smallpox (1943), Typhus Fever (1943)

Table C.90: *Hong Kong, China - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**23.4**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**†	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**9.4**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**0**	-	-	-	-	**156.3**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**62.1**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**19.5**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**3.8**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0.1**†	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	**45.3**	-	-	-	-	-	-
Predicted Mortality	**42 (30)**	-	-	-	-	**320.5**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**19.7**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.4**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**7.9**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**0**	-	-	-	-	**104.4**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**33.8**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**35.4**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**14.5**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0.1**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	**31.1**	-	-	-	-	-	-
Predicted Mortality	**42 (30)**	-	-	-	-	**247.4**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Scarlet Fever (1946), Typhus Fever (1946)

Table C.91: *Hungary - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**3.3**	4	4.8	-	-	**4.3**	**3.3**†	3.3†	3.3†	-	-	-
Plague	-	0	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**1.6**	0.8	0.9	-	-	**0.9**	**1.6**†	1.6†	1.6†	-	-	-
Whooping Cough	**2.8**	4.6	5.4	-	-	**5.4**	**2.8**†	2.8†	2.8†	-	-	-
Diphtheria	**3**	2.9	3.4	-	-	**2.9**	**3**†	3†	3†	-	-	-
Tuberculosis (all forms)	**143.5**	140.9	167.8	-	-	-	**143.5**	143.5	143.5	-	-	-
Malaria	**0**	0.2	0.2	-	-	-	-	-	-	-	-	-
Influenza	**5.4**	10.5	12.5	-	-	-	**5.4**†	5.4†	5.4†	-	-	-
Smallpox	**0**	0	0	-	-	-	-	-	-	-	-	-
Measles	**1.2**	1.8	2.2	-	-	**2.2**	**1.2**†	1.2†	1.2†	-	-	-
Typhus Fever	-	0	0	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**106.8**	175.5	209	-	-	-	**106.8**†	106.8†	106.8†	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**267.6 (267.6)**	341.2	406.4	-	-	**15.8**	**267.6**	267.6	267.6	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**3.3**	4	5.3	-	-	**6.2**	**3**	3	2.9	-	-	-
Plague	-	0	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**1.6**	1	1.3	-	-	**1.4**	**1.7**	1.7	1.7	-	-	-
Whooping Cough	**2.8**	4.8	6.4	-	-	**4.1**	**3.8**	3.8	3.8	-	-	-
Diphtheria	**3**	2.5	3.3	-	-	**5**	**7.4**	7.4	7.4	-	-	-
Tuberculosis (all forms)	**143.5**	145.4	194.1	-	-	-	**176.7**	176.7	176.7	-	-	-
Malaria	**0**	0.2	0.3	-	-	-	-	-	-	-	-	-
Influenza	**5.4**	10.2	13.5	-	-	-	**4.2**	4.2	4.2	-	-	-
Smallpox	**0**	0	0	-	-	-	-	-	-	-	-	-
Measles	**1.2**	2.4	3.3	-	-	**2.3**	**0.8**	0.8	0.8	-	-	-
Typhus Fever	-	0.2	0.2	-	-	**0.8**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**106.8**	168.5	223.1	-	-	-	**110.8**	110.8	110.9	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**267.6 (267.6)**	339.2	450.9	-	-	**19.8**	**308.5**	308.5	308.5	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN Town All: Typhoid and Paratyphoid Fevers (1943), Scarlet Fever (1943), Whooping Cough (1943), Diphtheria (1943), Influenza (1943), Measles (1943), Pneumonia and Bronchopneumonia (1943)
LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1943), Scarlet Fever (1943), Whooping Cough (1943), Diphtheria (1943), Influenza (1943), Measles (1943), Pneumonia and Bronchopneumonia (1943)
LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1943), Scarlet Fever (1943), Whooping Cough (1943), Diphtheria (1943), Influenza (1943), Measles (1943), Pneumonia and Bronchopneumonia (1943)

Table C.92: *Iceland - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	0	0	**0**	0	**0**	**0**	0	0	-	-	-
Plague	**-**	0	0	**0**	0	**-**	**-**	-	-	-	-	-
Scarlet Fever	**0**	0	0	**0**	0	**0**	**0**	0	0	-	-	-
Whooping Cough	**0**	0	0	**0**	0	**0**	**0**	0	0	-	-	-
Diphtheria	**2.6**	0.8	0.8	**0.8**	0.8	**0.8**	**2.6**	2.6	2.6	-	-	-
Tuberculosis (all forms)	**75.8**	85.8	85.6	**86**	85.6	**-**	**75.8**	75.8	75.8	-	-	-
Malaria	**0**	0	0	**0**	0	**-**	**-**	-	-	-	-	-
Influenza	**0**	1.7	1.6	**1.7**	1.6	**1.6**	**0**	0	0	-	-	-
Smallpox	**0**	0	0	**0**	0	**-**	**-**	-	-	-	-	-
Measles	**0**	0	0	**0**	0	**0**	**0**	0	0	-	-	-
Typhus Fever	**-**	0	0	**0**	0	**-**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**94.1**	75.1	74.9	**75.3**	74.9	**-**	**94.1**	94.1	94.1	-	-	-
Cholera	**-**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**172.5 (172.5)**	163.4	163	**163.8**	163	**2.5**	**172.5**	172.5	172.5	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	0	0	**0.1**	0.1	**0.1**	**0**	0	0	-	-	-
Plague	**-**	0	0	**0**	0	**-**	**-**	-	-	-	-	-
Scarlet Fever	**0**	0	0	**0.4**	0.4	**0.5**	**0.6**	0.6	0.6	-	-	-
Whooping Cough	**0**	0	0	**5.9**	5.8	**6.5**	**5.9**	5.9	5.9	-	-	-
Diphtheria	**2.6**	0.8	0.8	**0.6**	0.6	**0.7**	**0.9**	0.9	0.8	-	-	-
Tuberculosis (all forms)	**75.8**	85.8	85.6	**81.7**	80.7	**-**	**71.9**	71.9	71.9	-	-	-
Malaria	**0**	0	0	**0**	0	**-**	**-**	-	-	-	-	-
Influenza	**0**	1.7	1.6	**10.5**	10.3	**11.6**	**8.4**	8.4	8.4	-	-	-
Smallpox	**0**	0	0	**0**	0	**-**	**-**	-	-	-	-	-
Measles	**0**	0	0	**1.6**	1.6	**1.8**	**1.2**	1.2	1.2	-	-	-
Typhus Fever	**-**	0	0	**0**	0	**-**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**94.1**	75.1	74.9	**72.2**	71.5	**-**	**83.4**	83.4	83.4	-	-	-
Cholera	**-**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**172.5 (172.5)**	163.4	163	**173**	170.9	**21.2**	**172.3**	172.3	172.3	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.93: *Iran, Islamic Rep. - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**42.9**	-	-	-	-	-	**42.9†**	42.9†	42.9†	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0.2**	-	-	-	-	-	**0.2†**	0.2†	0.2†	-	-	-
Whooping Cough	**9.4**	-	-	-	-	-	**9.4†**	9.4†	9.4†	-	-	-
Diphtheria	**8**	-	-	-	-	-	**8†**	8†	8†	-	-	-
Tuberculosis (all forms)	**62.3**	-	-	-	-	-	**62.3†**	62.3†	62.3†	-	-	-
Malaria	**6**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**6.8**	-	-	-	-	-	**6.8†**	6.8†	6.8†	-	-	-
Smallpox	**7.2**	-	-	-	-	-	**0†**	0†	0†	-	-	-
Measles	**26.5**	-	-	-	-	-	**26.5†**	26.5†	26.5†	-	-	-
Typhus Fever	-	-	-	-	-	-	**1.6†**	1.6†	1.6†	-	-	-
Pneumonia and Bronchopneumonia	**202.2**	-	-	-	-	-	**202.2†**	202.2†	202.2†	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**371.5 (371.5)**	-	-	-	-	-	**359.9**	359.9	359.9	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**42.9**	-	-	-	-	-	**75.4**	75.4	75.4	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0.2**	-	-	-	-	-	**4.4**	4.4	4.4	-	-	-
Whooping Cough	**9.4**	-	-	-	-	-	**12**	12	12	-	-	-
Diphtheria	**8**	-	-	-	-	-	**8.2**	8.2	8.2	-	-	-
Tuberculosis (all forms)	**62.3**	-	-	-	-	-	**52.3**	52.3	52.3	-	-	-
Malaria	**6**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**6.8**	-	-	-	-	-	**12.8**	12.8	12.8	-	-	-
Smallpox	**7.2**	-	-	-	-	-	**2.6**	2.6	2.6	-	-	-
Measles	**26.5**	-	-	-	-	-	**26.8**	26.8	26.8	-	-	-
Typhus Fever	-	-	-	-	-	-	**9.1**	9.1	9.1	-	-	-
Pneumonia and Bronchopneumonia	**202.2**	-	-	-	-	-	**194.8**	194.8	194.8	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**371.5 (371.5)**	-	-	-	-	-	**398.4**	398.4	398.4	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN Town All: Typhoid and Paratyphoid Fevers (1942), Scarlet Fever (1942), Whooping Cough (1942), Diphtheria (1942), Tuberculosis (all forms) (1942), Influenza (1942), Smallpox (1937), Measles (1942), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1942)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1942), Scarlet Fever (1942), Whooping Cough (1942), Diphtheria (1942), Tuberculosis (all forms) (1942), Influenza (1942), Smallpox (1937), Measles (1942), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1942)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1942), Scarlet Fever (1942), Whooping Cough (1942), Diphtheria (1942), Tuberculosis (all forms) (1942), Influenza (1942), Smallpox (1937), Measles (1942), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1942)

Table C.94: *Iraq - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**2**	**16.2†**	16.2†	16.2†	-	-	-
Plague	**-**	-	-	-	-	**0**	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	**-**	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.5**	**0.6†**	0.6†	0.6†	-	-	-
Diphtheria	**0**	-	-	-	-	**0.9**	**8.9†**	8.9†	8.9†	-	-	-
Tuberculosis (all forms)	**186**	-	-	-	-	**-**	**-**	-	-	-	-	-
Malaria	**6**	-	-	-	-	**-**	**64.9†**	64.9†	64.9†	-	-	-
Influenza	**3.2**	-	-	-	-	**-**	**-**	-	-	-	-	-
Smallpox	**59.2**	-	-	-	-	**6.8**	**0†**	0†	0†	-	-	-
Measles	**0**	-	-	-	-	**1.7**	**11.8†**	11.8†	11.8†	-	-	-
Typhus Fever	**-**	-	-	-	-	**1.1**	**0†**	0†	0†	-	-	-
Pneumonia and Bronchopneumonia	**433.3**	-	-	-	-	**-**	**245.7†**	245.7†	245.7†	-	-	-
Cholera	**-**	-	-	-	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**687.7 (687.7)**	-	-	-	-	**12.9**	**348.1**	348.1	348.1	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.7**	**24.5**	24.5	24.5	-	-	-
Plague	**-**	-	-	-	-	**0**	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	**-**	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.4**	**0.5**	0.5	0.5	-	-	-
Diphtheria	**0**	-	-	-	-	**0.8**	**7.5**	7.5	7.5	-	-	-
Tuberculosis (all forms)	**186**	-	-	-	-	**-**	**-**	-	-	-	-	-
Malaria	**6**	-	-	-	-	**-**	**44.6**	44.6	44.6	-	-	-
Influenza	**3.2**	-	-	-	-	**-**	**-**	-	-	-	-	-
Smallpox	**59.2**	-	-	-	-	**3.5**	**1.4**	1.4	1.4	-	-	-
Measles	**0**	-	-	-	-	**2.4**	**11.5**	11.5	11.5	-	-	-
Typhus Fever	**-**	-	-	-	-	**0.5**	**0.1**	0.1	0.1	-	-	-
Pneumonia and Bronchopneumonia	**433.3**	-	-	-	-	**-**	**325.8**	325.8	325.8	-	-	-
Cholera	**-**	-	-	-	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**687.7 (687.7)**	-	-	-	-	**9.4**	**415.9**	415.9	415.9	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN Town All: Typhoid and Paratyphoid Fevers (1937), Whooping Cough (1937), Diphtheria (1937), Malaria (1937), Smallpox (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1937), Whooping Cough (1937), Diphtheria (1937), Malaria (1937), Smallpox (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1937), Whooping Cough (1937), Diphtheria (1937), Malaria (1937), Smallpox (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

Table C.95: *Jamaica - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**16.8**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.9**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**2.9**	-	-	-	-	**52.5**	-	-	-	-	-	-
Influenza	**4**	-	-	-	-	**1.7**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**100.6**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**117.5 (107.5)**	-	-	-	-	**72.6**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**18.2**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**7.9**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.8**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**2.9**	-	-	-	-	**47.2**	-	-	-	-	-	-
Influenza	**4**	-	-	-	-	**3.6**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.9**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0.1**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**100.6**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**117.5 (107.5)**	-	-	-	-	**78.6**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.96: *Japan - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	10.3	10.3	**10.3**	10.3	**10.3**	**-**	-	-	-	-	-
Plague	**-**	0	0	**0**	0	**-**	**-**	-	-	-	-	-
Scarlet Fever	**0**	0.5	0.5	**0.5**	0.5	**0.5**	**-**	-	-	-	-	-
Whooping Cough	**0**	12.2	12.2	**12.2**	12.2	**12.2**	**-**	-	-	-	-	-
Diphtheria	**0**	6.6	6.6	**6.6**	6.6	**6.6**	**-**	-	-	-	-	-
Tuberculosis (all forms)	**220**	213.3	213.3	**212.4**	213.3	**-**	**-**	-	-	-	-	-
Malaria	**0**	0.3	0.3	**0.3**	0.3	**0.3**	**-**	-	-	-	-	-
Influenza	**11.9**	4.4	4.4	**4.4**	4.4	**4.4**	**-**	-	-	-	-	-
Smallpox	**0**	0.1	0.1	**0.1**	0.1	**0.1**	**-**	-	-	-	-	-
Measles	**0**	7.1	7.1	**7.1**	7.1	**7.1**	**-**	-	-	-	-	-
Typhus Fever	**-**	0	0	**0.1**	0.1	**0.1**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**172.6**	154.7	154.7	**154**	154.7	**-**	**-**	-	-	-	-	-
Cholera	**-**	-	-	**-**	-	**0**	**-**	-	-	-	-	-
Predicted Mortality	**414.5 (404.5)**	409.5	409.6	**408**	409.7	**41.7**	**-**	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	11.4	11.4	**10.5**	10.7	**9.7**	**-**	-	-	-	-	-
Plague	**-**	0	0	**0**	0	**-**	**-**	-	-	-	-	-
Scarlet Fever	**0**	0.4	0.4	**0.5**	0.5	**0.3**	**-**	-	-	-	-	-
Whooping Cough	**0**	12.3	12.4	**13.5**	13.6	**13.3**	**-**	-	-	-	-	-
Diphtheria	**0**	8	8	**7**	7.1	**7.2**	**-**	-	-	-	-	-
Tuberculosis (all forms)	**220**	219.4	220.8	**214.2**	216.4	**-**	**-**	-	-	-	-	-
Malaria	**0**	0.3	0.3	**0.3**	0.3	**0.3**	**-**	-	-	-	-	-
Influenza	**11.9**	4.4	4.5	**6.2**	6.3	**5.7**	**-**	-	-	-	-	-
Smallpox	**0**	0.1	0.1	**0.1**	0.1	**0.6**	**-**	-	-	-	-	-
Measles	**0**	18	18.1	**15.5**	15.6	**17.2**	**-**	-	-	-	-	-
Typhus Fever	**-**	0.1	0.1	**0.1**	0.1	**0.7**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**172.6**	154	154.9	**156.8**	158.5	**-**	**-**	-	-	-	-	-
Cholera	**-**	-	-	**-**	-	**0.1**	**-**	-	-	-	-	-
Predicted Mortality	**414.5 (404.5)**	428.4	431	**424.5**	429	**55.1**	**-**	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.97: *Kenya - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.4**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**0.2**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0**†	-	-	-	-	-	-
Smallpox	**0.2**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30.1)**	-	-	-	-	**1.7**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.6**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**1.7**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0**	-	-	-	-	-	-
Smallpox	**0.2**	-	-	-	-	**0.8**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30.1)**	-	-	-	-	**4.2**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN V2 No. Deaths: Influenza (1945)

Table C.98: *Korea, Dem. Rep. - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	Census No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**13**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**12**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**3.5**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**67.6**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**1.5**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**54.9**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**2.5**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**191.8**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0.7**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**285.7**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**633.4**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**11**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**14.4**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**3**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**62.7**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**1.4**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**55.8**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**2.5**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**124.2**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0.8**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**232.5**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**0.1**	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**508.4**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).Coutry-level mortality rates for Korea, Dem. Rep. are taken from the Government-General of Korea's "Vital Statistics of Korea, 1938-1942" (Seoul, 1941-1944)

Table C.99: *Lao Pdr (French Indo-China) - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.4**†	-	-	-	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**359**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**1.8**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	**1.2**	-	-	-	-	-	-
Predicted Mortality	**399 (389)**	-	-	-	-	**3.7**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.4**	-	-	-	-	-	-
Plague	-	-	-	-	-	**0.1**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**359**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**2.8**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	**0.4**	-	-	-	-	-	-
Predicted Mortality	**399 (389)**	-	-	-	-	**3.9**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1939)

Table C.100: *Latvia - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	**5.2†**	5.2†	5.2†	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**6.2†**	6.2†	6.2†	-	-	-
Whooping Cough	**0**	-	-	-	-	-	**5.2†**	5.2†	5.2†	-	-	-
Diphtheria	**0**	-	-	-	-	-	**1†**	1†	1†	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	**117.8†**	117.8†	117.8†	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	**11.7†**	11.7†	11.7†	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**0†**	0†	0†	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	**112.8†**	112.8†	112.8†	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	-	**259.9**	259.9	259.9	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	**5.4**	5.4	5.4	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**3.5**	3.5	3.5	-	-	-
Whooping Cough	**0**	-	-	-	-	-	**2.9**	2.9	2.9	-	-	-
Diphtheria	**0**	-	-	-	-	-	**3.5**	3.5	3.5	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	**134.4**	134.4	134.4	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	**8.2**	8.2	8.2	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**0.4**	0.4	0.4	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	**93.6**	93.6	93.6	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	-	**251.9**	251.9	251.9	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN Town All: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Influenza (1937), Measles (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Influenza (1937), Measles (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Influenza (1937), Measles (1937), Pneumonia and Bronchopneumonia (1937)

Table C.101: *Lebanon - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**9.6**	**29.9**†	29.9†	29.9†	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.8**	**3.7**†	3.7†	3.7†	-	-	-
Tuberculosis (all forms)	**58.2**	-	-	-	-	-	**34.2**†	34.2†	34.2†	-	-	-
Malaria	**4.3**	-	-	-	-	**5.7**	**15.6**†	15.6†	15.6†	-	-	-
Influenza	**42.9**	-	-	-	-	**5.6**	**7.4**†	7.4†	7.4†	-	-	-
Smallpox	**0.6**	-	-	-	-	**0**	**0**†	0†	0†	-	-	-
Measles	**0**	-	-	-	-	**2.5**	**1.9**†	1.9†	1.9†	-	-	-
Typhus Fever	-	-	-	-	-	**0**	**0**†	0†	0†	-	-	-
Pneumonia and Bronchopneumonia	**399.9**	-	-	-	-	-	**228.4**†	228.4†	228.4†	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**515.9 (505.9)**	-	-	-	-	**24.4**	**321.1**	321.1	321.1	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**8.2**	**26.3**	26.3	26.3	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**1.1**	**3.6**	3.6	3.6	-	-	-
Tuberculosis (all forms)	**58.2**	-	-	-	-	-	**48.5**	48.5	48.5	-	-	-
Malaria	**4.3**	-	-	-	-	**7.7**	**21.1**	21.1	21.1	-	-	-
Influenza	**42.9**	-	-	-	-	**7.3**	**62.4**	62.4	62.4	-	-	-
Smallpox	**0.6**	-	-	-	-	**1.3**	**8.2**	8.2	8.2	-	-	-
Measles	**0**	-	-	-	-	**3.5**	**1.5**	1.5	1.5	-	-	-
Typhus Fever	-	-	-	-	-	**0.1**	**0.3**	0.3	0.3	-	-	-
Pneumonia and Bronchopneumonia	**399.9**	-	-	-	-	-	**158.5**	158.5	158.5	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**515.9 (505.9)**	-	-	-	-	**29.8**	**330.5**	330.5	330.5	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN Town All: Typhoid and Paratyphoid Fevers (1937), Diphtheria (1937), Tuberculosis (all forms) (1936), Malaria (1937), Influenza (1937), Smallpox (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1937), Diphtheria (1937), Tuberculosis (all forms) (1936), Malaria (1937), Influenza (1937), Smallpox (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1937), Diphtheria (1937), Tuberculosis (all forms) (1936), Malaria (1937), Influenza (1937), Smallpox (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

Table C.102: *Lesotho - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.6**	-	-	-	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0.4**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**2**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**5.1**	-	-	-	-	-	-
Plague	-	-	-	-	-	**0.6**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0.3**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**1.4**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**8**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.103: *Lithuania - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	5.3†	5.5†	-	-	-	**8.2†**	8.2†	8.2†	-	-	-
Plague	-	0†	0†	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	10.4†	10.8†	-	-	-	**2.6†**	2.6†	2.6†	-	-	-
Whooping Cough	**0**	27.6†	28.7†	-	-	-	**7.2†**	7.2†	7.2†	-	-	-
Diphtheria	**0**	16.2†	16.8†	-	-	-	**13.6†**	13.6†	13.6†	-	-	-
Tuberculosis (all forms)	**128**	85.1†	88.6†	-	-	-	**196.8†**	196.8†	196.9†	-	-	-
Malaria	**0**	0†	0†	-	-	-	-	-	-	-	-	-
Influenza	**23.5**	48.2†	50.2†	-	-	-	**8.3†**	8.3†	8.3†	-	-	-
Smallpox	**0**	0†	0†	-	-	-	-	-	-	-	-	-
Measles	**0**	6.3†	6.6†	-	-	-	**8.9†**	8.9†	8.9†	-	-	-
Typhus Fever	-	0.3†	0.3†	-	-	-	**0.4†**	0.4†	0.4†	-	-	-
Pneumonia and Bronchopneumonia	**155.6**	114.1†	118.7†	-	-	-	**178.7†**	178.7†	178.7†	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**307.1 (307.1)**	313.5	326.4	-	-	-	**424.8**	424.8	424.8	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	5.3	5.5	-	-	-	**10.2**	10.2	10.2	-	-	-
Plague	-	0	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	10.4	10.8	-	-	-	**4.3**	4.3	4.3	-	-	-
Whooping Cough	**0**	27.6	28.7	-	-	-	**6.7**	6.7	6.7	-	-	-
Diphtheria	**0**	16.2	16.8	-	-	-	**17.4**	17.4	17.4	-	-	-
Tuberculosis (all forms)	**128**	85.1	88.6	-	-	-	**210**	210	210	-	-	-
Malaria	**0**	0	0	-	-	-	-	-	-	-	-	-
Influenza	**23.5**	48.2	50.2	-	-	-	**4.7**	4.7	4.7	-	-	-
Smallpox	**0**	0	0	-	-	-	-	-	-	-	-	-
Measles	**0**	6.3	6.6	-	-	-	**5.2**	5.2	5.2	-	-	-
Typhus Fever	-	0.3	0.3	-	-	-	**0.3**	0.3	0.3	-	-	-
Pneumonia and Bronchopneumonia	**155.6**	114.1	118.7	-	-	-	**164.5**	164.5	164.5	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**307.1 (307.1)**	313.5	326.4	-	-	-	**423.4**	423.4	423.4	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†IVS V1 Rate: Typhoid and Paratyphoid Fevers (1939), Plague (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Tuberculosis (all forms) (1939), Malaria (1939), Influenza (1939), Smallpox (1939), Measles (1939), Typhus Fever (1939), Pneumonia and Bronchopneumonia (1939)

IVS V1 No. Deaths: Typhoid and Paratyphoid Fevers (1939), Plague (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Tuberculosis (all forms) (1939), Malaria (1939), Influenza (1939), Smallpox (1939), Measles (1939), Typhus Fever (1939), Pneumonia and Bronchopneumonia (1939)

LoN Town All: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Influenza (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Influenza (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Influenza (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

Table C.104: *Luxembourg - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	**3.7**	3.4	**3.4**	-	-	-	-	-	-
Plague	-	-	-	**0**	0	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	**0.3**	0.3	**0.3**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	**0.3**	0.3	**0.3**	-	-	-	-	-	-
Diphtheria	**0**	-	-	**0.3**	0.3	**0.3**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	**62.9**	63.2	-	-	-	-	-	-	-
Malaria	-	-	-	**0**	0	**0**	-	-	-	-	-	-
Influenza	**30**	-	-	**10.8**	10.9	**10.9**	-	-	-	-	-	-
Smallpox	**0**	-	-	**0**	0	**0**	-	-	-	-	-	-
Measles	**0**	-	-	**0.3**	0.3	**0.3**	-	-	-	-	-	-
Typhus Fever	-	-	-	**0**	0	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	**85.8**	86.3	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	**164.4**	165.1	**15.6**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	**3.1**	3	**3.4**	-	-	-	-	-	-
Plague	-	-	-	**0**	0	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	**0.6**	0.6	**0.6**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	**2.5**	2.5	**2**	-	-	-	-	-	-
Diphtheria	**0**	-	-	**11.9**	11.7	**12.6**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	**77.8**	77.1	-	-	-	-	-	-	-
Malaria	-	-	-	**0.1**	0.1	**0.1**	-	-	-	-	-	-
Influenza	**30**	-	-	**18.1**	18	**18**	-	-	-	-	-	-
Smallpox	**0**	-	-	**0**	0	**0**	-	-	-	-	-	-
Measles	**0**	-	-	**1.4**	1.4	**1.4**	-	-	-	-	-	-
Typhus Fever	-	-	-	**0**	0	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	**96.6**	96	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	**212.3**	210.6	**38.1**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.105: *Madagascar - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**17.6**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.5**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**17.4**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**1**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**36.8**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.1**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**7.9**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.7**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**19.6**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**1.2**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**30.8**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.106: *Malawi - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**1**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0**	-	-	-	-	-	-
Smallpox	**158.7**	-	-	-	-	**0.2**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (188.7)**	-	-	-	-	**1.2**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**1.3**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0**	-	-	-	-	-	-
Smallpox	**158.7**	-	-	-	-	**0.3**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (188.7)**	-	-	-	-	**2.1**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.107: *Mauritius - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	**15.5**	15.3	-	-	-	-	-	-	-
Plague	-	-	-	**0**	0	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	**0**	0	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	**0.2**	0.2	**0.2**	-	-	-	-	-	-
Diphtheria	**0**	-	-	**2**	1.9	**1.9**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	**63.8**	63.2	-	-	-	-	-	-	-
Malaria	**853**	-	-	**534.3**	529.8	**529.8**	-	-	-	-	-	-
Influenza	**30**	-	-	**43.4**	43.1	**43.1**	-	-	-	-	-	-
Smallpox	**0**	-	-	**0**	0	-	-	-	-	-	-	-
Measles	**0**	-	-	**29.9**	29.7	**29.7**	-	-	-	-	-	-
Typhus Fever	-	-	-	**0**	0	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	**178.6**	177.1	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**893 (883)**	-	-	**867.7**	860.4	**604.8**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	**16.8**	16.6	-	-	-	-	-	-	-
Plague	-	-	-	**0**	0	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	**0**	0	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	**0.3**	0.3	**0.2**	-	-	-	-	-	-
Diphtheria	**0**	-	-	**2.5**	2.4	**2.6**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	**59.2**	58.4	-	-	-	-	-	-	-
Malaria	**853**	-	-	**636.1**	626.8	**634.5**	-	-	-	-	-	-
Influenza	**30**	-	-	**57.3**	56.5	**41.3**	-	-	-	-	-	-
Smallpox	**0**	-	-	**0**	0	-	-	-	-	-	-	-
Measles	**0**	-	-	**24.2**	24	**26.9**	-	-	-	-	-	-
Typhus Fever	-	-	-	**0**	0	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	**206.8**	204.1	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**893 (883)**	-	-	**1003.1**	989.2	**705.6**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.108: *Moldova - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	**22.9**†	22.9†	22.9†	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**6.2**†	6.2†	6.2†	-	-	-
Whooping Cough	**0**	-	-	-	-	-	**4.4**†	4.4†	4.4†	-	-	-
Diphtheria	**0**	-	-	-	-	-	**5.3**†	5.3†	5.3†	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	**322.1**†	322.1†	322.1†	-	-	-
Malaria	-	-	-	-	-	-	**39.6**†	39.6†	39.6†	-	-	-
Influenza	**30**	-	-	-	-	-	**7.9**†	7.9†	7.9†	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**0.9**†	0.9†	0.9†	-	-	-
Typhus Fever	-	-	-	-	-	-	**51.9**†	51.9†	51.9†	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	**181.7**†	181.7†	181.7†	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	-	**642.9**	642.9	642.9	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	**23.1**	23.1	23.1	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**38**	38	38	-	-	-
Whooping Cough	**0**	-	-	-	-	-	**5.8**	5.8	5.9	-	-	-
Diphtheria	**0**	-	-	-	-	-	**6.3**	6.3	6.3	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	**282.5**	282.5	282.5	-	-	-
Malaria	-	-	-	-	-	-	**22.7**	22.7	22.7	-	-	-
Influenza	**30**	-	-	-	-	-	**15.6**	15.6	15.6	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**9.1**	9.1	9.1	-	-	-
Typhus Fever	-	-	-	-	-	-	**54.5**	54.5	54.5	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	**217.3**	217.3	217.3	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	-	**675.1**	675.1	675.1	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN Town All: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

Table C.109: *Mozambique - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**1.8**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**1.2**	-	-	-	-	-	-
Smallpox	**0.6**	-	-	-	-	**0.1**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.4**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (30.6)**	-	-	-	-	**3.8**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**2**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0.8**	-	-	-	-	-	-
Smallpox	**0.6**	-	-	-	-	**0.1**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (30.6)**	-	-	-	-	**3.4**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.110: *Nigeria (Including British Cameroons) - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0.6**	-	-	-	-	**0**	**0.6**	0.6	0.6	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**†	**0**	0	0	-	-	-
Whooping Cough	**4.9**	-	-	-	-	**0**	**4.9**	4.9	4.9	-	-	-
Diphtheria	**0**	-	-	-	-	**0**†	**0**	0	0	-	-	-
Tuberculosis (all forms)	**140.5**	-	-	-	-	-	**140.5**	140.5	140.5	-	-	-
Malaria	**66**	-	-	-	-	**0.2**†	-	-	-	-	-	-
Influenza	**0**	-	-	-	-	-	**0**	0	0	-	-	-
Smallpox	**13.5**	-	-	-	-	**1.6**	-	-	-	-	-	-
Measles	**0.6**	-	-	-	-	-	**0.6**	0.6	0.6	-	-	-
Typhus Fever	-	-	-	-	-	**0.1**†	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**309.8**	-	-	-	-	-	**309.8**	309.8	309.8	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**545.9 (535.9)**	-	-	-	-	**2**	**456.4**	456.4	456.4	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0.6**	-	-	-	-	**0**	**1.7**	1.7	1.7	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	**0.1**	0.1	0.1	-	-	-
Whooping Cough	**4.9**	-	-	-	-	**0**	**9.8**	9.8	9.8	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	**0.3**	0.3	0.3	-	-	-
Tuberculosis (all forms)	**140.5**	-	-	-	-	-	**141.3**	141.3	141.3	-	-	-
Malaria	**66**	-	-	-	-	**0.2**	-	-	-	-	-	-
Influenza	**0**	-	-	-	-	-	**0.2**	0.2	0.2	-	-	-
Smallpox	**13.5**	-	-	-	-	**2.7**	-	-	-	-	-	-
Measles	**0.6**	-	-	-	-	-	**1.5**	1.5	1.5	-	-	-
Typhus Fever	-	-	-	-	-	**0.1**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**309.8**	-	-	-	-	-	**279.3**	279.3	279.3	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**545.9 (535.9)**	-	-	-	-	**3**	**434**	434	434	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN V2 No. Deaths: Scarlet Fever (1945), Diphtheria (1943), Malaria (1937), Typhus Fever (1945)

Table C.111: *Poland - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**7.8**	-	-	-	-	**7.7†**	**7.9†**	7.9†	7.8†	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**2.8**	-	-	-	-	**0.4†**	**2.8†**	2.8†	2.8†	-	-	-
Whooping Cough	**18.8**	-	-	-	-	**0.5†**	**9.4†**	9.4†	9.4†	-	-	-
Diphtheria	**16**	-	-	-	-	**5.6†**	**16†**	16†	16†	-	-	-
Tuberculosis (all forms)	**163.8**	-	-	-	-	-	**163.8†**	163.8†	163.8†	-	-	-
Malaria	**0**	-	-	-	-	**0†**	-	-	-	-	-	-
Influenza	**3.7**	-	-	-	-	**0†**	**13.8**	13.8	13.8	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**3**	-	-	-	-	**0.3†**	**3†**	3†	3†	-	-	-
Typhus Fever	-	-	-	-	-	**1.2†**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**90.8**	-	-	-	-	-	**90.8†**	90.8†	90.8†	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**307.6 (306.8)**	-	-	-	-	**15.8**	**307.5**	307.5	307.5	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**7.8**	-	-	-	-	**7.7**	**7.8**	7.8	7.8	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**2.8**	-	-	-	-	**0.4**	**2.8**	2.8	2.8	-	-	-
Whooping Cough	**18.8**	-	-	-	-	**0.5**	**9.4**	9.4	9.4	-	-	-
Diphtheria	**16**	-	-	-	-	**5.6**	**16**	16	16	-	-	-
Tuberculosis (all forms)	**163.8**	-	-	-	-	-	**163.8**	163.8	163.8	-	-	-
Malaria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Influenza	**3.7**	-	-	-	-	**0**	**9.3**	9.3	9.3	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**3**	-	-	-	-	**0.3**	**3**	3	3	-	-	-
Typhus Fever	-	-	-	-	-	**1.2**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**90.8**	-	-	-	-	-	**90.8**	90.8	90.8	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**307.6 (306.8)**	-	-	-	-	**15.8**	**303**	303	303	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1946), Scarlet Fever (1946), Whooping Cough (1946), Diphtheria (1946), Malaria (1946), Influenza (1946), Measles (1946), Typhus Fever (1946)

LoN Town All: Typhoid and Paratyphoid Fevers (1946), Scarlet Fever (1946), Whooping Cough (1946), Diphtheria (1946), Tuberculosis (all forms) (1946), Measles (1946), Pneumonia and Bronchopneumonia (1946)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1946), Scarlet Fever (1946), Whooping Cough (1946), Diphtheria (1946), Tuberculosis (all forms) (1946), Measles (1946), Pneumonia and Bronchopneumonia (1946)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1946), Scarlet Fever (1946), Whooping Cough (1946), Diphtheria (1946), Tuberculosis (all forms) (1946), Measles (1946), Pneumonia and Bronchopneumonia (1946)

Table C.112: *Puerto Rico - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	**-**	-	**3.2**	**11.2**	11.2	11.2	-	-	-
Plague	**-**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	**-**	-	**0.1**	**0**	0	0	-	-	-
Whooping Cough	**0**	-	-	**-**	-	**11.8**	**5.9**	5.9	5.9	-	-	-
Diphtheria	**0**	-	-	**-**	-	**3**	**1.8**	1.8	1.8	-	-	-
Tuberculosis (all forms)	**0**	-	-	**-**	-	**-**	**255.8**	255.8	255.8	-	-	-
Malaria	**-**	-	-	**-**	-	**95.5**	**-**	-	-	-	-	-
Influenza	**30**	-	-	**-**	-	**64.7**	**28.4**	28.4	28.4	-	-	-
Smallpox	**0**	-	-	**-**	-	**0**	**-**	-	-	-	-	-
Measles	**0**	-	-	**-**	-	**4.4**	**4.7**	4.7	4.7	-	-	-
Typhus Fever	**-**	-	-	**-**	-	**0.1**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	**-**	-	**-**	**231**	231	231	-	-	-
Cholera	**-**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	**-**	-	**182.8**	**538.8**	538.8	538.8	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	**-**	-	**2.8**	**11.2**	11.2	11.2	-	-	-
Plague	**-**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	**-**	-	**0.1**	**0**	0	0	-	-	-
Whooping Cough	**0**	-	-	**-**	-	**11.3**	**5.9**	5.9	5.9	-	-	-
Diphtheria	**0**	-	-	**-**	-	**3**	**1.8**	1.8	1.8	-	-	-
Tuberculosis (all forms)	**0**	-	-	**-**	-	**-**	**255.8**	255.8	255.8	-	-	-
Malaria	**-**	-	-	**-**	-	**73.3**	**-**	-	-	-	-	-
Influenza	**30**	-	-	**-**	-	**18.9**	**28.4**	28.4	28.4	-	-	-
Smallpox	**0**	-	-	**-**	-	**0**	**-**	-	-	-	-	-
Measles	**0**	-	-	**-**	-	**3.7**	**4.7**	4.7	4.7	-	-	-
Typhus Fever	**-**	-	-	**-**	-	**0.3**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	**-**	-	**-**	**231**	231	231	-	-	-
Cholera	**-**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	**-**	-	**113.5**	**538.8**	538.8	538.8	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.113: *Romania - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	5†	6†	-	-	**2.2**	-	-	-	-	-	-
Plague	-	0†	0†	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	16.9†	20.5†	-	-	**9.4**	-	-	-	-	-	-
Whooping Cough	**0**	7.7†	9.3†	-	-	**0.6**	-	-	-	-	-	-
Diphtheria	**0**	2.6†	3.2†	-	-	**1.4**	-	-	-	-	-	-
Tuberculosis (all forms)	**212.2**	161.9†	195.9†	-	-	-	-	-	-	-	-	-
Malaria	**0.5**	4.8†	5.8†	-	-	**3.2**†	-	-	-	-	-	-
Influenza	**10.5**	11.5†	13.9†	-	-	**0.8**†	-	-	-	-	-	-
Smallpox	**0**	0†	0†	-	-	-	-	-	-	-	-	-
Measles	**0**	15.9†	19.2†	-	-	**2.4**	-	-	-	-	-	-
Typhus Fever	-	0.7†	0.9†	-	-	**0.8**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**197.2**	295.3†	357.2†	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**422.1 (420.4)**	522.3	631.7	-	-	**20.8**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	5	6	-	-	**2.7**	-	-	-	-	-	-
Plague	-	0	0	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	16.9	20.5	-	-	**5.6**	-	-	-	-	-	-
Whooping Cough	**0**	7.7	9.3	-	-	**1.6**	-	-	-	-	-	-
Diphtheria	**0**	2.6	3.2	-	-	**1.6**	-	-	-	-	-	-
Tuberculosis (all forms)	**212.2**	161.9	195.9	-	-	-	-	-	-	-	-	-
Malaria	**0.5**	4.8	5.8	-	-	**3.9**	-	-	-	-	-	-
Influenza	**10.5**	11.5	13.9	-	-	**0.2**	-	-	-	-	-	-
Smallpox	**0**	0	0	-	-	-	-	-	-	-	-	-
Measles	**0**	15.9	19.2	-	-	**3.9**	-	-	-	-	-	-
Typhus Fever	-	0.7	0.9	-	-	**10.5**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**197.2**	295.3	357.2	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**422.1 (420.4)**	522.3	631.7	-	-	**30.1**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†IVS V1 Rate: Typhoid and Paratyphoid Fevers (1939), Plague (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Tuberculosis (all forms) (1939), Malaria (1939), Influenza (1939), Smallpox (1939), Measles (1939), Typhus Fever (1939), Pneumonia and Bronchopneumonia (1939)

IVS V1 No. Deaths: Typhoid and Paratyphoid Fevers (1939), Plague (1939), Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Tuberculosis (all forms) (1939), Malaria (1939), Influenza (1939), Smallpox (1939), Measles (1939), Typhus Fever (1939), Pneumonia and Bronchopneumonia (1939)

LoN V2 No. Deaths: Malaria (1943), Influenza (1939)

Table C.114: *Seychelles - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**-**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**0**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.7**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**-**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**0.7**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.115: *Sierra Leone - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**†	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**†	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**†	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**0.4**†	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0**†	-	-	-	-	-	-
Smallpox	**0.1**	-	-	-	-	**4.9**†	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**†	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30.1)**	-	-	-	-	**5.4**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**1**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0**	-	-	-	-	-	-
Smallpox	**0.1**	-	-	-	-	**4.2**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30.1)**	-	-	-	-	**5.9**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

†LoN V2 No. Deaths: Scarlet Fever (1939), Whooping Cough (1939), Diphtheria (1939), Malaria (1939), Influenza (1939), Smallpox (1944), Measles (1939)

Table C.116: *Singapore - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**7**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**0†**	0†	0†	-	-	-
Whooping Cough	**0**	-	-	-	-	**1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**11**	-	-	-	-	-	-
Tuberculosis (all forms)	**279**	-	-	-	-	-	**250.1†**	250.1†	250.1†	-	-	-
Malaria	**240.3**	-	-	-	-	**46.5**	-	-	-	-	-	-
Influenza	**1.5**	-	-	-	-	**32.2**	-	-	-	-	-	-
Smallpox	**0.4**	-	-	-	-	**0.1**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**3.6**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0.3**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**349.4**	-	-	-	-	-	**353.4†**	353.4†	353.4†	-	-	-
Cholera	**0**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**880.6 (870.6)**	-	-	-	-	**101.7**	**603.5**	603.5	603.5	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**8.3**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**0.1**	0.1	0.1	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.5**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**4.6**	-	-	-	-	-	-
Tuberculosis (all forms)	**279**	-	-	-	-	-	**242.1**	242.1	242.1	-	-	-
Malaria	**240.3**	-	-	-	-	**125.8**	-	-	-	-	-	-
Influenza	**1.5**	-	-	-	-	**46.4**	-	-	-	-	-	-
Smallpox	**0.4**	-	-	-	-	**0.5**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**1.1**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0.1**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**349.4**	-	-	-	-	-	**331.6**	331.6	331.6	-	-	-
Cholera	**0**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**880.6 (870.6)**	-	-	-	-	**187.2**	**573.8**	573.8	573.8	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation’s “Annual Epidemiological Report for the Year 1937” (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN Town All: Scarlet Fever (1937), Tuberculosis (all forms) (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg.: Scarlet Fever (1937), Tuberculosis (all forms) (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg. & Miss.: Scarlet Fever (1937), Tuberculosis (all forms) (1937), Pneumonia and Bronchopneumonia (1937)

Table C.117: *Slovak Republic - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	**10.1**	7.5	**1.5**	**5.8**	5.8	5.8	-	-	-
Plague	**-**	-	-	**0**	0	**-**	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	**1.2**	0.9	**0.9**	**0.7**	0.7	0.7	-	-	-
Whooping Cough	**0**	-	-	**11**	8.2	**-**	**1.4**	1.4	1.4	-	-	-
Diphtheria	**0**	-	-	**10.8**	8	**8**	**8.7**	8.7	8.7	-	-	-
Tuberculosis (all forms)	**0**	-	-	**127.3**	94.8	**-**	**150.8**	150.8	150.8	-	-	-
Malaria	**-**	-	-	**0.2**	0.1	**-**	**-**	-	-	-	-	-
Influenza	**30**	-	-	**7.3**	5.4	**-**	**2.2**	2.2	2.2	-	-	-
Smallpox	**0**	-	-	**0.7**	0.5	**-**	**-**	-	-	-	-	-
Measles	**0**	-	-	**3.1**	2.3	**-**	**2.2**	2.2	2.2	-	-	-
Typhus Fever	**-**	-	-	**0**	0	**0**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	**198.5**	147.8	**-**	**139.3**	139.3	139.3	-	-	-
Cholera	**-**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	**370.2**	275.5	**10.3**	**311.1**	311.1	311.1	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	**13.1**	11	**1**	**14.3**	14.3	14.3	-	-	-
Plague	**-**	-	-	**0**	0	**-**	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	**1.1**	0.9	**0.4**	**1.5**	1.5	1.5	-	-	-
Whooping Cough	**0**	-	-	**9.8**	7.9	**-**	**3.2**	3.2	3.2	-	-	-
Diphtheria	**0**	-	-	**12.7**	10.6	**3.8**	**16.6**	16.6	16.6	-	-	-
Tuberculosis (all forms)	**0**	-	-	**130.1**	103.9	**-**	**141.1**	141.1	141.1	-	-	-
Malaria	**-**	-	-	**0.3**	0.2	**-**	**-**	-	-	-	-	-
Influenza	**30**	-	-	**7.9**	6.2	**-**	**2.3**	2.3	2.3	-	-	-
Smallpox	**0**	-	-	**0.2**	0.2	**-**	**-**	-	-	-	-	-
Measles	**0**	-	-	**5.7**	4.8	**-**	**1.4**	1.4	1.4	-	-	-
Typhus Fever	**-**	-	-	**2.7**	2.6	**0.1**	**-**	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	**172**	137.4	**-**	**104.3**	104.3	104.3	-	-	-
Cholera	**-**	-	-	**-**	-	**-**	**-**	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	**355.5**	285.6	**5.3**	**284.8**	284.8	284.8	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.118: *South Africa (Europeans) - IVS 1939*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**3**	**7.7**	-	7.7	-	-	3.8	3.8	3.8	-	-	-
Plague	**0.1**	**0.1**	-	0.1	-	-	-	-	-	-	-	-
Scarlet Fever	**0.2**	**0.6**	-	0.6	-	-	0.4	0.4	0.4	-	-	-
Whooping Cough	**4.3**	**6.6**	-	6.6	-	-	3.5	3.5	3.5	-	-	-
Diphtheria	**6**	**6.8**	-	6.8	-	-	6.8	6.8	6.8	-	-	-
Tuberculosis (all forms)	**38.9**	**36.1**	-	32.6	-	-	42.1	42.1	42.1	-	-	-
Malaria	**0**	**9.5**	-	9.5	-	-	-	-	-	-	-	-
Influenza	**52.7**	**13.5**	-	13.5	-	-	8.5	8.5	8.5	-	-	-
Smallpox	**0**	**0**	-	0	-	-	-	-	-	-	-	-
Measles	**6**	**2.2**	-	2.2	-	-	0.9	0.9	0.9	-	-	-
Typhus Fever	**0.2**	**0.2**	-	0.2	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**68.3**	**65.7**	-	65.7	-	-	57.9	57.9	57.9	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**189.3 (179.6)**	**149**	-	145.5	-	-	123.9	123.9	123.9	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**3**	**7.7**	-	5.6	-	-	3	3	3	-	-	-
Plague	**0.1**	**0.1**	-	0.1	-	-	-	-	-	-	-	-
Scarlet Fever	**0.2**	**0.6**	-	0.4	-	-	0.3	0.3	0.3	-	-	-
Whooping Cough	**4.3**	**6.6**	-	4.6	-	-	2.5	2.5	2.5	-	-	-
Diphtheria	**6**	**6.8**	-	6.1	-	-	4.8	4.8	4.8	-	-	-
Tuberculosis (all forms)	**38.9**	**36.1**	-	31.9	-	-	39.8	39.8	39.8	-	-	-
Malaria	**0**	**9.5**	-	4.5	-	-	-	-	-	-	-	-
Influenza	**52.7**	**13.5**	-	10.1	-	-	7.4	7.4	7.4	-	-	-
Smallpox	**0**	**0**	-	0.1	-	-	-	-	-	-	-	-
Measles	**6**	**2.2**	-	2.5	-	-	1.8	1.8	1.8	-	-	-
Typhus Fever	**0.2**	**0.2**	-	0.5	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**68.3**	**65.7**	-	66.7	-	-	61.4	61.4	61.4	-	-	-
Cholera	**0**	**-**	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**189.3 (179.6)**	**149**	-	133.1	-	-	121.1	121.1	121.1	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.119: *St. Vincent And The Grenadines - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**23**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**3.5**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**8.9**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**35.5**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**17.3**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**15.6**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**7**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**3**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**19.4**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**62.5**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.120: *Suriname - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**3.8**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**3.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**465**	-	-	-	-	**37.6**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**8.2**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**505 (495)**	-	-	-	-	**54**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**8.7**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**6.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**2.4**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**465**	-	-	-	-	**35.6**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**19.4**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.4**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**505 (495)**	-	-	-	-	**72.6**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.121: *Swaziland - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**0**†	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**0**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.8**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**1.1**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN V2 No. Deaths: Smallpox (1942)

Table C.122: *Syrian Arab Republic - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**4.2**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0.1**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0.2**†	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**5.7**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**9.6**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0.1**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**1.4**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.5**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0.2**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**12.8**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN V2 No. Deaths: Typhus Fever (1942)

Table C.123: *Taiwan - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.8**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**20**	-	-	-	-	**0.5**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**4.6**†	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	**0**	-	-	-	-	-	-
Predicted Mortality	**60 (50)**	-	-	-	-	**6.3**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.8**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**20**	-	-	-	-	**0.5**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**0**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**4.6**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.2**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	**6.4**	-	-	-	-	-	-
Predicted Mortality	**60 (50)**	-	-	-	-	**12.6**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN V2 No. Deaths: Smallpox (1946)

Table C.124: *Tanzania - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.4**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**1.2**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**4.7**	-	-	-	-	**0.1**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (34.7)**	-	-	-	-	**1.6**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.5**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**2**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**4.7**	-	-	-	-	**6.7**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (34.7)**	-	-	-	-	**9.2**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.125: *Tonga - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**17**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**17**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**15.9**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**15.9**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.126: *Trinidad And Tobago - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**22.6**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**2**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**2.9**	-	-	-	-	**86.2**	-	-	-	-	-	-
Influenza	**4**	-	-	-	-	**2.6**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**100.6**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**117.5 (107.5)**	-	-	-	-	**113.4**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**21.3**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.8**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**1.5**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	**2.9**	-	-	-	-	**90.1**	-	-	-	-	-	-
Influenza	**4**	-	-	-	-	**3.3**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**100.6**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**117.5 (107.5)**	-	-	-	-	**116.9**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.127: *Tunisia - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**30.2**	-	-	-	-	-	**30.2**	30.2	30.2	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**0**	0	0	-	-	-
Whooping Cough	**9.3**	-	-	-	-	-	**9.3**	9.3	9.3	-	-	-
Diphtheria	**3.7**	-	-	-	-	-	**3.7**	3.7	3.7	-	-	-
Tuberculosis (all forms)	**286.2**	-	-	-	-	-	**286.2**	286.2	286.2	-	-	-
Malaria	**17.3**	-	-	-	-	-	**10.9**†	10.9†	10.9†	-	-	-
Influenza	**22.8**	-	-	-	-	-	**22.8**	22.8	22.8	-	-	-
Smallpox	**0.5**	-	-	-	-	-	-	-	-	-	-	-
Measles	**14.9**	-	-	-	-	-	**14.9**	14.9	14.9	-	-	-
Typhus Fever	-	-	-	-	-	-	**5.5**†	5.5†	5.5†	-	-	-
Pneumonia and Bronchopneumonia	**275.7**	-	-	-	-	-	**275.7**	275.7	275.7	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**670.6 (660.6)**	-	-	-	-	-	**659.2**	659.2	659.2	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**30.2**	-	-	-	-	-	**34**	34	34	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**0.2**	0.2	0.2	-	-	-
Whooping Cough	**9.3**	-	-	-	-	-	**8.9**	8.9	8.9	-	-	-
Diphtheria	**3.7**	-	-	-	-	-	**3.5**	3.5	3.5	-	-	-
Tuberculosis (all forms)	**286.2**	-	-	-	-	-	**326.6**	326.6	326.6	-	-	-
Malaria	**17.3**	-	-	-	-	-	**12.6**	12.6	12.6	-	-	-
Influenza	**22.8**	-	-	-	-	-	**7.8**	7.8	7.8	-	-	-
Smallpox	**0.5**	-	-	-	-	-	-	-	-	-	-	-
Measles	**14.9**	-	-	-	-	-	**38.2**	38.2	38.2	-	-	-
Typhus Fever	-	-	-	-	-	-	**2.9**	2.9	2.9	-	-	-
Pneumonia and Bronchopneumonia	**275.7**	-	-	-	-	-	**255.4**	255.4	255.4	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**670.6 (660.6)**	-	-	-	-	-	**690.1**	690.1	690.1	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.
†LoN Town All: Malaria (1937), Typhus Fever (1937)
LoN Town Excl. Agg.: Malaria (1937), Typhus Fever (1937)
LoN Town Excl. Agg. & Miss.: Malaria (1937), Typhus Fever (1937)

Table C.128: *Turkey - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.9**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Tuberculosis (all forms)	**263.4**	-	-	-	-	-	**261.2†**	261.2†	261.2†	-	-	-
Malaria	**55.1**	-	-	-	-	-	**33.8†**	33.8†	33.8†	-	-	-
Influenza	**10.9**	-	-	-	-	-	**9†**	9†	9†	-	-	-
Smallpox	**0**	-	-	-	-	**0.7**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**1**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0.6**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**273.7**	-	-	-	-	-	**340.9†**	340.9†	340.9†	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**613 (603)**	-	-	-	-	**4.9**	**645**	645	645	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.6**	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.6**	-	-	-	-	-	-
Tuberculosis (all forms)	**263.4**	-	-	-	-	-	**244.1**	244.1	252.9	-	-	-
Malaria	**55.1**	-	-	-	-	-	**29.9**	29.9	29.9	-	-	-
Influenza	**10.9**	-	-	-	-	-	**6.9**	6.9	6.9	-	-	-
Smallpox	**0**	-	-	-	-	**1.6**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**1.2**	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0.8**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**273.7**	-	-	-	-	-	**269.7**	269.7	269.7	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**613 (603)**	-	-	-	-	**5.9**	**550.6**	550.6	559.4	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.
†LoN Town All: Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Pneumonia and Bronchopneumonia (1937)
LoN Town Excl. Agg.: Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Pneumonia and Bronchopneumonia (1937)
LoN Town Excl. Agg. & Miss.: Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Pneumonia and Bronchopneumonia (1937)

Table C.129: *Uganda - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.4†**	-	-	-	-	-	-
Plague	-	-	-	-	-	**6.2**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.2†**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**3.7**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**11.6**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**1.3**	-	-	-	-	-	-
Plague	-	-	-	-	-	**3.3**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	**4.5**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**9.4**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).
†LoN V2 No. Deaths: Typhoid and Paratyphoid Fevers (1939), Whooping Cough (1939)

Table C.130: *Ukraine - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	**4.2†**	4.2†	4.2†	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**18.4†**	18.4†	18.5†	-	-	-
Whooping Cough	**0**	-	-	-	-	-	**2.2†**	2.2†	2.2†	-	-	-
Diphtheria	**0**	-	-	-	-	-	**8.6†**	8.6†	8.6†	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	**164.2†**	164.2†	164.2†	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	**2.8†**	2.8†	2.8†	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**0.6†**	0.6†	0.6†	-	-	-
Typhus Fever	-	-	-	-	-	-	**0†**	0†	0†	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	**171.4†**	171.4†	171.4†	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	-	**372.4**	372.4	372.3	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	**5.2**	5.2	5.2	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**14.7**	14.7	14.7	-	-	-
Whooping Cough	**0**	-	-	-	-	-	**2.1**	2.1	2.1	-	-	-
Diphtheria	**0**	-	-	-	-	-	**11.5**	11.5	11.5	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	**162**	162	162	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	**4.5**	4.5	4.5	-	-	-
Smallpox	**0**	-	-	-	-	-	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**4.2**	4.2	4.2	-	-	-
Typhus Fever	-	-	-	-	-	-	**1**	1	1	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	**170.7**	170.7	170.7	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	-	**375.9**	375.9	375.9	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN Town All: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Influenza (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Influenza (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Influenza (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

Table C.131: *USSR - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	**6.4†**	6.4†	6.4†	-	-	-
Plague	**-**	-	-	-	-	-	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**7†**	7†	7†	-	-	-
Whooping Cough	**0**	-	-	-	-	-	**4.1†**	4.1†	4.1†	-	-	-
Diphtheria	**0**	-	-	-	-	-	**9.5†**	9.5†	9.5†	-	-	-
Tuberculosis (all forms)	**225**	-	-	-	-	-	**179.1†**	179.1†	179.1†	-	-	-
Malaria	**0**	-	-	-	-	-	**39.6†**	39.6†	39.6†	-	-	-
Influenza	**16.2**	-	-	-	-	-	**9.9†**	9.9†	9.9†	-	-	-
Smallpox	**0.2**	-	-	-	-	-	**-**	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**2.7†**	2.7†	2.7†	-	-	-
Typhus Fever	**-**	-	-	-	-	-	**8.8†**	8.8†	8.8†	-	-	-
Pneumonia and Bronchopneumonia	**158.6**	-	-	-	-	-	**145†**	145†	145†	-	-	-
Cholera	**-**	-	-	-	-	-	**-**	-	-	-	-	-
Predicted Mortality	**404.8 (399.9)**	-	-	-	-	-	**412**	412	412	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	-	**8**	8	8	-	-	-
Plague	**-**	-	-	-	-	-	**-**	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	**9.6**	9.6	9.6	-	-	-
Whooping Cough	**0**	-	-	-	-	-	**4.2**	4.2	4.2	-	-	-
Diphtheria	**0**	-	-	-	-	-	**12.4**	12.4	12.4	-	-	-
Tuberculosis (all forms)	**225**	-	-	-	-	-	**180.6**	180.6	180.6	-	-	-
Malaria	**0**	-	-	-	-	-	**22.7**	22.7	22.7	-	-	-
Influenza	**16.2**	-	-	-	-	-	**10.4**	10.4	9.9	-	-	-
Smallpox	**0.2**	-	-	-	-	-	**-**	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**3.8**	3.8	3.8	-	-	-
Typhus Fever	**-**	-	-	-	-	-	**9.6**	9.6	9.6	-	-	-
Pneumonia and Bronchopneumonia	**158.6**	-	-	-	-	-	**146.4**	146.4	145	-	-	-
Cholera	**-**	-	-	-	-	-	**-**	-	-	-	-	-
Predicted Mortality	**404.8 (399.9)**	-	-	-	-	-	**407.6**	407.6	405.7	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN Town All: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Measles (1937), Typhus Fever (1937), Pneumonia and Bronchopneumonia (1937)

Table C.132: *Vietnam (French Indo-China) - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.4**	**30.2**†	30.2†	30.2†	-	-	-
Plague	-	-	-	-	-	**0**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	**2.1**†	2.1†	2.1†	-	-	-
Tuberculosis (all forms)	**208.9**	-	-	-	-	-	**246.5**†	246.5†	246.5†	-	-	-
Malaria	**141.1**	-	-	-	-	-	**239.8**†	239.8†	239.8†	-	-	-
Influenza	**7.1**	-	-	-	-	-	**7**†	7†	7†	-	-	-
Smallpox	**101.5**	-	-	-	-	**1.8**	**18.7**†	18.7†	18.7†	-	-	-
Measles	**0**	-	-	-	-	**0.1**	**1**†	1†	1†	-	-	-
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**475.6**	-	-	-	-	-	**320.4**†	320.4†	320.4†	-	-	-
Cholera	-	-	-	-	-	**1.3**	-	-	-	-	-	-
Predicted Mortality	**965.1 (934.1)**	-	-	-	-	**3.7**	**865.5**	865.5	865.5	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.6**	**20.1**	20.1	20.1	-	-	-
Plague	-	-	-	-	-	**0.1**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	**2.4**	2.4	2.4	-	-	-
Tuberculosis (all forms)	**208.9**	-	-	-	-	-	**229.1**	229.1	229.1	-	-	-
Malaria	**141.1**	-	-	-	-	-	**217.6**	217.6	217.6	-	-	-
Influenza	**7.1**	-	-	-	-	-	**6.4**	6.4	6.4	-	-	-
Smallpox	**101.5**	-	-	-	-	**2.8**	**25.4**	25.4	25.4	-	-	-
Measles	**0**	-	-	-	-	**0.1**	**1.8**	1.8	1.8	-	-	-
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**475.6**	-	-	-	-	-	**390.5**	390.5	390.5	-	-	-
Cholera	-	-	-	-	-	**0.4**	-	-	-	-	-	-
Predicted Mortality	**965.1 (934.1)**	-	-	-	-	**4.2**	**893.3**	893.3	893.3	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN Town All: Typhoid and Paratyphoid Fevers (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Smallpox (1937), Measles (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Smallpox (1937), Measles (1937), Pneumonia and Bronchopneumonia (1937)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Malaria (1937), Influenza (1937), Smallpox (1937), Measles (1937), Pneumonia and Bronchopneumonia (1937)

Table C.133: *Virgin Islands (U.s.) - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**16.1**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**16.1**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.5**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**13.4**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**0.5**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**2.5**	-	-	-	-	-	-
Smallpox	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**0.5**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0.5**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (30)**	-	-	-	-	**17.8**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.134: *Yugoslavia - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**2.2**	**6.1†**	6.1†	2.8†	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0.2**	**1†**	1†	3†	-	-	-
Whooping Cough	**0**	-	-	-	-	-	**1.9†**	1.9†	3.1†	-	-	-
Diphtheria	**0**	-	-	-	-	**3.6**	**10.6†**	10.6†	8.6†	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	**230.2†**	230.2†	-	-	-	-
Malaria	**2.1**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0.4**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**2.2†**	2.2†	0.9†	-	-	-
Typhus Fever	-	-	-	-	-	**0.2**	**0.3†**	0.3†	0.3†	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**32.6 (32.5)**	-	-	-	-	**6.2**	**252.3**	252.3	18.7	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**2.6**	**4.5**	4.5	4	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0.3**	**1.6**	1.6	1.8	-	-	-
Whooping Cough	**0**	-	-	-	-	-	**2.5**	2.5	2.8	-	-	-
Diphtheria	**0**	-	-	-	-	**3.7**	**9.2**	9.2	8.8	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	**185.4**	185.4	-	-	-	-
Malaria	**2.1**	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**0.4**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	**1.2**	1.2	0.9	-	-	-
Typhus Fever	-	-	-	-	-	**0.7**	**0.1**	0.1	0.1	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**32.6 (32.5)**	-	-	-	-	**7.3**	**204.7**	204.7	18.4	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. "Rate" and "No. Deaths" denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. "Town" refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007). Data for the period 1935-1937 is drawn from League of Nation's "Annual Epidemiological Report for the Year 1937" (Geneva, 1939) and after from LoN V2, respectively LoN V1 for town-data.

†LoN Town All: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Measles (1937), Typhus Fever (1937)

LoN Town Excl. Agg.: Typhoid and Paratyphoid Fevers (1937), Scarlet Fever (1937), Whooping Cough (1937), Diphtheria (1937), Tuberculosis (all forms) (1937), Measles (1937), Typhus Fever (1937)

LoN Town Excl. Agg. & Miss.: Typhoid and Paratyphoid Fevers (1936), Scarlet Fever (1936), Whooping Cough (1936), Diphtheria (1936), Measles (1936), Typhus Fever (1937)

Table C.135: *Zambia - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Plague	-	-	-	-	-	**0.1**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**113.3**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (143.3)**	-	-	-	-	**0.2**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Plague	-	-	-	-	-	**0.1**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	-	-	-	-	-	-	-
Smallpox	**113.3**	-	-	-	-	**0.3**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	-	-	-	-	-	-	-
Typhus Fever	-	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-	-	-
Predicted Mortality	**- (143.3)**	-	-	-	-	**0.6**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Table C.136: *Zimbabwe - LON 1940*

Disease	Acemoglu and Johnson (2007)	IVS Rate	IVS No. Deaths	LoN V1 Rate	LoN V1 No. Deaths	LoN V2 No. Deaths	LoN Town All	LoN Town Excl. Agg.	LoN Town Excl. Agg. & Miss.	LoN Town Agg. Only	BioStat Rate	BioStat No. Deaths
Panel A: Mortality Rate in Reference Year												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**2.7**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**1.4**	-	-	-	-	-	-
Smallpox	**34.8**	-	-	-	-	**0.2**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (64.8)**	-	-	-	-	**4.6**	-	-	-	-	-	-
Panel B: Average Mortality Rate over Time												
Typhoid and Paratyphoid Fevers	**0**	-	-	-	-	**0.3**	-	-	-	-	-	-
Plague	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Scarlet Fever	**0**	-	-	-	-	**0**	-	-	-	-	-	-
Whooping Cough	**0**	-	-	-	-	**0.1**	-	-	-	-	-	-
Diphtheria	**0**	-	-	-	-	**1.1**	-	-	-	-	-	-
Tuberculosis (all forms)	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Malaria	**-**	-	-	-	-	**7**	-	-	-	-	-	-
Influenza	**30**	-	-	-	-	**1.4**	-	-	-	-	-	-
Smallpox	**34.8**	-	-	-	-	**0**	-	-	-	-	-	-
Measles	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Typhus Fever	**-**	-	-	-	-	**0**	-	-	-	-	-	-
Pneumonia and Bronchopneumonia	**0**	-	-	-	-	**-**	-	-	-	-	-	-
Cholera	**-**	-	-	-	-	**-**	-	-	-	-	-	-
Predicted Mortality	**- (64.8)**	-	-	-	-	**9.9**	-	-	-	-	-	-

Notes: Column headers refer to the data source of the mortality rate data. Mortality rates of the referenced source in Acemoglu and Johnson (2007) are highlighted in bold. “Rate” and “No. Deaths” denote if the presented rate is taken directly from the source, respectively calculated from the stated number of deaths with our collected population data. “Town” refers to town-level mortality rates in LON V1. We consider averaging across all towns with available information (All), excluding aggregates of towns when averaging (Excl. Agg.), and additionally excluding years when not all towns have information (Excl. Agg & Miss.). Last, we present only the average across town aggregates (Agg. Only). The number in parentheses after the published predicted mortality rate in Acemoglu and Johnson (2007) depicts the sum of mortality rates by disease in 1940 published in Acemoglu and Johnson (2007).

Appendix D

Appendix to Chapter 4

D.1 Additional Empirical Results

D.1.1 Replication Acemoglu *et al.* (2020)

As stated in Section 4.2, we directly take the data on outcomes from Acemoglu *et al.* (2020). Note that the population value for India in 1940 is equal to 321 565 (Indian Union) (see Maddison, 2003, p. 152) but not equal to the correct value of 386 800 (India) (see Maddison, 2003, p. 162) as in Acemoglu and Johnson (2007). We abstain from changing the value back to its correct figure as in Acemoglu and Johnson (2007) in order to ensure that any deviations in the results solely derive from the construction of the instruments.

Low- and Middle-Income Countries

Table D.1: *Acemoglu et al. (2020) - First-Stage and Reduced-Form Estimates Low- and Middle-Income Countries Sample*

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(Population)					
Change in Predicted Mortality	-0.764***	-0.463**	-0.494**	-0.778***	-0.479**
	(0.191)	(0.188)	(0.208)	(0.184)	(0.190)
	[-1.151,-0.378]	[-0.844,-0.083]	[-0.915,-0.074]	[-1.152,-0.405]	[-0.865,-0.094]
Adjusted R^2	0.218	0.065	0.125	0.222	0.139
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
B. Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, COW2					
Change in Predicted Mortality	-0.660***	-0.345*	-0.351*	-0.804***	-0.492**
	(0.236)	(0.203)	(0.203)	(0.222)	(0.234)
	[-1.136,-0.183]	[-0.756,0.066]	[-0.762,0.059]	[-1.254,-0.354]	[-0.965,-0.019]
Adjusted R^2	0.180	0.034	0.060	0.273	0.171
Countries	41	40	41	41	41
Number of Clusters	40	39	40	40	40

Notes: Column 1 presents the replicated results for Table 3, 1940-1980, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Figures in brackets are 95% confidence intervals based on cluster-robust estimates of the variance matrix.

Table D.2: *Acemoglu et al. (2020) - 2SLS Estimates*
Low- and Middle-Income Countries

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, COW2					
Change in Ln(Population)	0.828***	0.745**	0.693**	1.015***	0.993***
	(0.294)	(0.351)	(0.271)	(0.327)	(0.321)
	[0.235,1.651]	[-0.48,2.18]	[0.131,1.503]	[0.345,1.967]	[0.4,2.07]
Effective F-Statistic	16.02	6.07	5.66	17.80	6.35
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
B. Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, Uppsala					
Change in Ln(Population)	0.746**	0.699	0.475	0.808**	0.846**
	(0.314)	(0.548)	(0.348)	(0.376)	(0.386)
	[0.147,1.634]	[-1.145,2.724]	[-0.392,1.325]	[0.002,1.832]	[0.037,1.952]
Effective F-Statistic	17.95	6.52	6.00	18.86	6.74
Countries	41	41	41	41	41
Number of Clusters	40	40	40	40	40
C. Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, FL					
Change in Ln(Population)	1.221***	1.243	1.015*	0.981**	1.351**
	(0.457)	(0.806)	(0.568)	(0.423)	(0.585)
	[0.422,2.629]	[-0.876,5.069]	[-0.415,2.374]	[0.101,2.167]	[0.088,2.982]
Effective F-Statistic	17.95	6.52	6.00	18.86	6.74
Countries	41	41	41	41	41
Number of Clusters	40	40	40	40	40
D. Dependent Variable: Change in log (1 + Battle Deaths/Pop. in 1940)					
Change in Ln(Population)	1.703**	2.074*	1.543*	2.840***	2.703**
	(0.793)	(1.208)	(0.764)	(1.004)	(1.052)
	[0.078,3.8]	[-2.468,6.086]	[-0.094,3.694]	[0.704,5.591]	[0.647,5.948]
Effective F-Statistic	17.95	6.52	6.00	18.86	6.74
Countries	41	41	41	41	41
Number of Clusters	40	40	40	40	40

Notes: Panel A Column 1 presents the replicated result for Table 5 Column 4, 1940-1980, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The IV estimates were obtained using the Stata command *ivreg2* (Baum *et al.*, 2002). The *effective F-statistic* (Olea and Pflueger, 2013), allowing for errors that are not conditionally homoskedastic and serially uncorrelated, is obtained using the Stata command *weakivtest* (Pflueger and Wang, 2015). The (Anderson-Rubin) 95% confidence intervals presented in brackets are weak-IV-robust ones obtained using the Stata command *weakiv* (Finlay *et al.*, 2013).

Time Period: 1940-2000

Table D.3: *Acemoglu et al. (2020) - 2SLS Estimates*
Baseline Sample, 1940-2000

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Years in Conflict/Total Years, COW2					
Change in Ln(Population)	0.296**	0.315	0.293	0.193	0.348
	(0.144)	(0.280)	(0.263)	(0.144)	(0.235)
	[-0.03,0.597]	[-0.368,1.217]	[-0.581,0.753]	[-0.162,0.505]	[-0.321,0.810]
Effective F-Statistic	38.11	13.08	12.02	35.65	14.58
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
B. Dependent Variable: Change in Years in Conflict/Total Years, Uppsala					
Change in Ln(Population)	0.181	-0.088	0.197	0.196	0.242
	(0.128)	(0.241)	(0.198)	(0.169)	(0.183)
	[-0.084,0.473]	[-0.828,0.535]	[-0.341,0.618]	[-0.140,0.645]	[-0.183,0.686]
Effective F-Statistic	39.48	13.32	12.29	36.06	14.91
Countries	52	52	52	52	52
Number of Clusters	51	51	51	51	51
C. Dependent Variable: Change in Years in Conflict/Total Years, FL					
Change in Ln(Population)	-0.046	0.241	-0.088	-0.128	-0.048
	(0.125)	(0.167)	(0.155)	(0.149)	(0.135)
	[-0.301,0.245]	[-0.095,0.899]	[-0.519,0.236]	[-0.484,0.202]	[-0.406,0.240]
Effective F-Statistic	39.48	13.32	12.29	36.06	14.91
Countries	52	52	52	52	52
Number of Clusters	51	51	51	51	51
D. Dependent Variable: Change in log (1 + Battle Deaths/Pop. in 1940)					
Change in Ln(Population)	0.127	0.012	0.125	0.290*	0.338**
	(0.124)	(0.218)	(0.128)	(0.169)	(0.151)
	[-0.125,0.414]	[-0.719,0.528]	[-0.264,0.369]	[-0.053,0.731]	[0.032,0.755]
Effective F-Statistic	39.48	13.32	12.29	36.06	14.91
Countries	52	52	52	52	52
Number of Clusters	51	51	51	51	51

Notes: Panel A Column 1 presents the replicated results for Table 5 Column 10, 1940-2000, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The IV estimates were obtained using the Stata command *ivreg2* (Baum *et al.*, 2002). The *effective F-statistic* (Olea and Pflueger, 2013), allowing for errors that are not conditionally homoskedastic and serially uncorrelated, is obtained using the Stata command *weakivtest* (Pflueger and Wang, 2015). The (Anderson-Rubin) 95% confidence intervals presented in brackets are weak-IV-robust ones obtained using the Stata command *weakiv* (Finlay *et al.*, 2013).

Table D.4: *Acemoglu et al. (2020) - 2SLS Estimates*
Low- and Middle-Income Countries, 1940-2000

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Years in Conflict/Total Years, COW2					
Change in Ln(Population)	0.659**	0.657	0.608	0.371	0.730
	(0.315)	(0.638)	(0.574)	(0.265)	(0.523)
	[0.028,1.548]	[-0.881,4.430]	[-1.019,1.866]	[-0.238,1.059]	[-0.523,2.081]
Effective F-Statistic	16.02	6.07	5.66	17.80	6.35
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
B. Dependent Variable: Change in Years in Conflict/Total Years, Uppsala					
Change in Ln(Population)	0.442*	-0.141	0.445	0.419	0.539
	(0.252)	(0.523)	(0.413)	(0.315)	(0.389)
	[-0.034,1.164]	[-2.197,1.522]	[-0.543,1.484]	[-0.166,1.403]	[-0.253,1.697]
Effective F-Statistic	17.95	6.52	6.00	18.86	6.74
Countries	41	41	41	41	41
Number of Clusters	40	40	40	40	40
C. Dependent Variable: Change in Years in Conflict/Total Years, FL					
Change in Ln(Population)	0.110	0.713	0.009	-0.061	0.106
	(0.281)	(0.454)	(0.302)	(0.273)	(0.277)
	[-0.408,0.937]	[-0.040,4.148]	[-0.719,0.770]	[-0.676,0.644]	[-0.527,0.834]
Effective F-Statistic	17.95	6.52	6.00	18.86	6.74
Countries	41	41	41	41	41
Number of Clusters	40	40	40	40	40
D. Dependent Variable: Change in log (1 + Battle Deaths/Pop. in 1940)					
Change in Ln(Population)	0.455	0.198	0.417	0.731**	0.874**
	(0.331)	(0.403)	(0.323)	(0.347)	(0.409)
	[-0.166,1.409]	[-1.255,1.594]	[-0.372,1.220]	[0.129,1.894]	[0.164,2.290]
Effective F-Statistic	17.95	6.52	6.00	18.86	6.74
Countries	41	41	41	41	41
Number of Clusters	40	40	40	40	40

Notes: Long-difference estimates, 1940-2000, for the low- and middle-income country sample as in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The IV estimates were obtained using the Stata command *ivreg2* (Baum *et al.*, 2002). The *effective F-statistic* (Olea and Pflueger, 2013), allowing for errors that are not conditionally homoskedastic and serially uncorrelated, is obtained using the Stata command *weakivtest* (Pflueger and Wang, 2015). The (Anderson-Rubin) 95% confidence intervals presented in brackets are weak-IV-robust ones obtained using the Stata command *weakiv* (Finlay *et al.*, 2013).

Falsification

Table D.5: *Acemoglu et al. (2020) - Falsification Exercise*
Baseline Sample

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(Population)					
Change in Predicted Mortality	-0.189	-0.032	-0.046	-0.183	-0.057
	(0.138)	(0.138)	(0.148)	(0.115)	(0.130)
	[-0.465,0.088]	[-0.308,0.244]	[-0.344,0.251]	[-0.415,0.049]	[-0.317,0.204]
Adjusted R^2	0.014	-0.020	-0.018	0.010	-0.015
Countries	52	51	52	52	52
Number of Clusters	52	51	52	52	52
B. Dependent Variable: Change in Years in Conflict/Total Years, COW2					
Change in Predicted Mortality	0.085	-0.076	0.071	0.041	0.052
	(0.055)	(0.132)	(0.099)	(0.075)	(0.064)
	[-0.026,0.197]	[-0.343,0.192]	[-0.13,0.272]	[-0.11,0.193]	[-0.079,0.182]
Adjusted R^2	-0.017	-0.022	-0.022	-0.026	-0.024
Countries	36	35	36	36	36
Number of Clusters	36	35	36	36	36

Notes: Column 1 presents the replicated results for Table 3, 1900-1940, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Figures in brackets are 95% confidence intervals based on cluster-robust estimates of the variance matrix.

Table D.6: *Acemoglu et al. (2020) - Falsification Exercise*
Low- and Middle-Income Countries Sample

Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Dependent Variable: Change in Ln(Population)					
Change in Predicted Mortality	-0.198	-0.014	-0.029	-0.204	-0.046
	(0.196)	(0.161)	(0.173)	(0.155)	(0.158)
	[-0.594,0.197]	[-0.34,0.311]	[-0.38,0.321]	[-0.517,0.108]	[-0.365,0.274]
Adjusted R^2	0.004	-0.026	-0.025	0.007	-0.023
Countries	41	40	41	41	41
Number of Clusters	41	40	41	41	41
B. Dependent Variable: Change in Years in Conflict/Total Years, COW2					
Change in Predicted Mortality	0.197	-0.074	0.137	0.103	0.112
	(0.126)	(0.184)	(0.136)	(0.122)	(0.117)
	[-0.062,0.457]	[-0.452,0.304]	[-0.142,0.417]	[-0.147,0.352]	[-0.127,0.352]
Adjusted R^2	0.002	-0.033	-0.018	-0.026	-0.021
Countries	28	27	28	28	28
Number of Clusters	28	27	28	28	28

Notes: Column 1 presents the replicated results for Table 3, 1900-1940, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Figures in brackets are 95% confidence intervals based on cluster-robust estimates of the variance matrix.

D.1.2 Pre-Post Estimation Results

Table D.7: *First-Stage Estimates - Full Pre-Post Classification*
Low- and Middle-Income Countries Sample

	Dependent Variable: Change in Ln(Population)				
Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Predicted Mortality	-0.764***	-0.463**	-0.494**	-0.778***	-0.479**
	(0.191)	(0.188)	(0.208)	(0.184)	(0.190)
Time Trend	0.311**	0.562***	0.502***	0.359***	0.467***
	(0.127)	(0.103)	(0.121)	(0.129)	(0.131)
Adjusted R^2	0.218	0.065	0.125	0.222	0.139
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
B. Classified Pre-Post-Sample					
Change in Predicted Mortality	-0.764***	-0.463**	-0.494**	-0.778***	-0.479**
	(0.191)	(0.188)	(0.208)	(0.184)	(0.190)
Time Trend	0.311**	0.562***	0.502***	0.359***	0.467***
	(0.127)	(0.103)	(0.121)	(0.129)	(0.131)
Adjusted R^2	0.218	0.065	0.125	0.222	0.139
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
C. Semi-Interacted Model					
Change in Predicted Mortality	-0.392**	-0.356*	-0.162	-0.414***	-0.180
	(0.175)	(0.200)	(0.165)	(0.135)	(0.155)
Change in Predicted Mortality $\times$ Post	1.411***	1.920***	1.983***	1.668***	1.601***
	(0.234)	(0.219)	(0.253)	(0.209)	(0.214)
Time Trend	0.710***	0.817***	0.894***	0.746***	0.866***
	(0.119)	(0.095)	(0.098)	(0.096)	(0.108)
Marginal Effect of Post	1.019***	1.564***	1.821***	1.254***	1.421***
	(0.356)	(0.327)	(0.358)	(0.301)	(0.317)
Adjusted R^2	0.670	0.670	0.717	0.732	0.722
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
D. Different Time Trend					
Change in Predicted Mortality	0.099	-0.154	-0.046	-0.177	-0.052
	(0.156)	(0.162)	(0.143)	(0.145)	(0.135)
Time Trend $\times$ Pre	1.077***	0.945***	0.984***	0.909***	0.976***
	(0.120)	(0.079)	(0.097)	(0.105)	(0.107)
Time Trend $\times$ Post	0.314***	0.233***	0.264***	0.219***	0.259***
	(0.076)	(0.063)	(0.061)	(0.068)	(0.068)
Adjusted R^2	0.951	0.952	0.950	0.952	0.950
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
E. Fully-Interacted Model					
Change in Predicted Mortality $\times$ Pre	0.092	-0.160	-0.051	-0.205	-0.062
	(0.196)	(0.178)	(0.151)	(0.156)	(0.146)
Change in Predicted Mortality $\times$ Post	0.122	-0.088	0.095	0.084	0.148
	(0.192)	(0.182)	(0.308)	(0.330)	(0.322)
Time Trend $\times$ Pre	1.072***	0.943***	0.981***	0.893***	0.969***
	(0.146)	(0.085)	(0.101)	(0.111)	(0.113)
Time Trend $\times$ Post	0.323***	0.252***	0.309**	0.307**	0.335**
	(0.105)	(0.082)	(0.127)	(0.146)	(0.155)
Adjusted R^2	0.949	0.951	0.949	0.952	0.949
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39

Notes: Panel A Column 1 presents the replicated result for Table 3 Column 2, 1940-1980, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Classification of Cervellati and Sunde (2011)

Table D.8: *First-Stage Estimates - Pre-Post Classification Cervellati and Sunde (2011)*

	Dependent Variable: Change in Ln(Population)				
Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Predicted Mortality	-0.782***	-0.579***	-0.576***	-0.800***	-0.541***
	(0.141)	(0.172)	(0.189)	(0.128)	(0.160)
Time Trend	0.296***	0.478***	0.434***	0.337***	0.409***
	(0.078)	(0.080)	(0.089)	(0.082)	(0.091)
Adjusted R^2	0.292	0.117	0.187	0.278	0.203
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
B. Classified Pre-Post-Sample					
Change in Predicted Mortality	-0.741***	-0.634***	-0.555***	-0.770***	-0.519***
	(0.148)	(0.189)	(0.202)	(0.127)	(0.167)
Time Trend	0.361***	0.499***	0.487***	0.391***	0.461***
	(0.081)	(0.088)	(0.095)	(0.084)	(0.096)
Adjusted R^2	0.283	0.157	0.201	0.292	0.216
Countries	44	44	44	44	44
Number of Clusters	43	43	43	43	43
C. Semi-Interacted Model					
Change in Predicted Mortality	-0.531***	-0.331*	-0.216	-0.482***	-0.250*
	(0.140)	(0.179)	(0.163)	(0.118)	(0.149)
Change in Predicted Mortality $\times$ Post	1.314***	2.282***	2.246***	1.719***	1.714***
	(0.184)	(0.272)	(0.307)	(0.255)	(0.258)
Time Trend	0.630***	0.836***	0.856***	0.703***	0.807***
	(0.083)	(0.078)	(0.088)	(0.082)	(0.096)
Marginal Effect of Post	0.783***	1.952***	2.029***	1.236***	1.464***
	(0.256)	(0.369)	(0.409)	(0.332)	(0.355)
Adjusted R^2	0.640	0.684	0.667	0.692	0.667
Countries	44	44	44	44	44
Number of Clusters	43	43	43	43	43
D. Different Time Trend					
Change in Predicted Mortality	0.129	-0.038	0.040	-0.008	0.049
	(0.144)	(0.178)	(0.131)	(0.162)	(0.125)
Time Trend $\times$ Pre	1.112***	1.010***	1.051***	1.022***	1.061***
	(0.115)	(0.097)	(0.098)	(0.118)	(0.110)
Time Trend $\times$ Post	0.405***	0.362***	0.378***	0.368***	0.383***
	(0.064)	(0.061)	(0.054)	(0.062)	(0.057)
Adjusted R^2	0.939	0.938	0.938	0.938	0.938
Countries	44	44	44	44	44
Number of Clusters	43	43	43	43	43
E. Fully-Interacted Model					
Change in Predicted Mortality $\times$ Pre	0.029	-0.115	-0.008	-0.147	-0.017
	(0.199)	(0.197)	(0.150)	(0.172)	(0.147)
Change in Predicted Mortality $\times$ Post	0.327**	0.815**	0.815**	0.627**	0.651**
	(0.142)	(0.344)	(0.344)	(0.244)	(0.249)
Time Trend $\times$ Pre	1.046***	0.975***	1.022***	0.940***	1.015***
	(0.146)	(0.101)	(0.105)	(0.124)	(0.119)
Time Trend $\times$ Post	0.458***	0.545***	0.545***	0.517***	0.541***
	(0.075)	(0.098)	(0.098)	(0.084)	(0.092)
Adjusted R^2	0.939	0.942	0.941	0.943	0.942
Countries	44	44	44	44	44
Number of Clusters	43	43	43	43	43

Notes: Panel A Column 1 presents the replicated result for Table 3 Column 1, 1940-1980, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D.9: *First-Stage Estimates - Pre-Post Classification Cervellati and Sunde (2011) Low- and Middle-Income Countries Sample*

	Dependent Variable: Change in Ln(Population)				
	(1)	(2)	(3)	(4)	(5)
Predicted Mortality Rate Definition:	Acemoglu and Johnson (2007)	Country-Level	Country-Level Suppl. w. Town-Level	Country-Level Repl. w. Town-Level	Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Predicted Mortality	-0.764***	-0.463**	-0.494**	-0.778***	-0.479**
	(0.191)	(0.188)	(0.208)	(0.184)	(0.190)
Time Trend	0.311**	0.562***	0.502***	0.359***	0.467***
	(0.127)	(0.103)	(0.121)	(0.129)	(0.131)
Adjusted R^2	0.218	0.0655	0.125	0.222	0.139
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
B. Classified Pre-Post-Sample					
Change in Predicted Mortality	-0.595***	-0.442**	-0.407*	-0.650***	-0.387*
	(0.205)	(0.204)	(0.210)	(0.190)	(0.190)
Time Trend	0.470***	0.635***	0.612***	0.481***	0.584***
	(0.141)	(0.116)	(0.129)	(0.139)	(0.140)
Adjusted R^2	0.138	0.0678	0.101	0.180	0.106
Countries	33	33	33	33	33
Number of Clusters	32	32	32	32	32
C. Semi-Interacted Model					
Change in Predicted Mortality	-0.341*	-0.186	-0.077	-0.305**	-0.092
	(0.171)	(0.193)	(0.157)	(0.148)	(0.150)
Change in Predicted Mortality × Post	1.344***	2.157***	2.170***	1.697***	1.692***
	(0.206)	(0.234)	(0.267)	(0.243)	(0.240)
Time Trend	0.771***	0.929***	0.967***	0.829***	0.948***
	(0.114)	(0.094)	(0.101)	(0.107)	(0.114)
Marginal Effect of Post	1.003***	1.972***	2.094***	1.392***	1.600***
	(0.309)	(0.346)	(0.369)	(0.346	(0.344)
Adjusted R^2	0.655	0.713	0.700	0.711	0.709
Countries	33	33	33	33	33
Number of Clusters	32	32	32	32	32
D. Different Time Trend					
Change in Predicted Mortality	0.083	-0.104	-0.002	-0.103	-0.001
	(0.163)	(0.191)	(0.146)	(0.166)	(0.140)
Time Trend × Pre	1.082***	0.980***	1.026***	0.966***	1.026***
	(0.126)	(0.099)	(0.103)	(0.121)	(0.116)
Time Trend × Post	0.353***	0.291***	0.321***	0.287***	0.321***
	(0.085)	(0.075)	(0.064)	(0.078)	(0.072)
Adjusted R^2	0.956	0.956	0.955	0.956	0.955
Countries	33	33	33	33	33
Number of Clusters	32	32	32	32	32
E. Fully-Interacted Model					
Change in Predicted Mortality × Pre	0.029	-0.115	-0.008	-0.147	-0.017
	(0.202)	(0.201)	(0.152)	(0.175)	(0.149)
Change in Predicted Mortality × Post	0.268	0.313	0.313	0.390	0.452
	(0.197)	(0.351)	(0.351)	(0.334)	(0.372)
Time Trend × Pre	1.046***	0.975***	1.022***	0.940***	1.015***
	(0.149)	(0.103)	(0.106)	(0.126)	(0.121)
Time Trend × Post	0.424***	0.413***	0.413***	0.452***	0.489***
	(0.117)	(0.143)	(0.143)	(0.151)	(0.177)
Adjusted R^2	0.955	0.955	0.954	0.956	0.955
Countries	33	33	33	33	33
Number of Clusters	32	32	32	32	32

Notes: Panel A Column 1 presents the replicated result for Table 3 Column 2, 1940-1980, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

2SLS Estimates

Table D.10: *2SLS Estimates - Full Pre-Post Classification*
Low- and Middle-Income Countries Sample

	Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, COW2				
	(1)	(2)	(3)	(4)	(5)
Predicted Mortality Rate Definition:	Acemoglu and Johnson (2007)	Country-Level	Country-Level Suppl. w. Town-Level	Country-Level Repl. w. Town-Level	Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Ln(Population)	0.828***	0.745**	0.693**	1.015***	0.993***
	(0.294)	(0.351)	(0.271)	(0.327)	(0.321)
Time Trend	-0.535**	-0.475*	-0.437**	-0.673***	-0.657**
	(0.218)	(0.266)	(0.205)	(0.248)	(0.248)
Kleibergen-Paap F-Statistic	16.02	6.07	5.66	17.80	6.35
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
B. Classified Pre-Post-Sample					
Change in Ln(Population)	0.828***	0.745**	0.693**	1.015***	0.993***
	(0.294)	(0.351)	(0.271)	(0.327)	(0.321)
Time Trend	-0.535**	-0.475*	-0.437**	-0.673***	-0.657**
	(0.218)	(0.266)	(0.205)	(0.248)	(0.248)
Kleibergen-Paap F-Statistic	16.02	6.07	5.66	17.80	6.35
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
C. Semi-Interacted Model					
Change in Ln(Population)	-1.747	1.452	7.002	4.988	34.715
	(2.904)	(1.183)	(35.248)	(8.884)	(522.672)
Change in Ln(Population) $\times$ Post	-5.901	2.865	17.687	12.413	93.758
	(8.430)	(3.143)	(93.906)	(23.627)	(1,423.386)
Time Trend	1.975	-1.294	-6.926	-4.893	-35.264
	(2.942)	(1.203)	(35.912)	(9.195)	(534.439)
Kleibergen-Paap F-Statistic	0.30	0.54	0.02	0.15	0.00
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
D. Different Time Trend					
Change in Ln(Population)	-5.211	1.584	4.643	3.980	7.439
	(9.568)	(1.423)	(11.919)	(3.471)	(17.097)
Time Trend $\times$ Pre	5.436	-1.428	-4.518	-3.849	-7.342
	(9.651)	(1.448)	(12.111)	(3.571)	(17.387)
Time Trend $\times$ Post	1.361	-0.532	-1.384	-1.199	-2.163
	(2.632)	(0.400)	(3.333)	(1.002)	(4.800)
Kleibergen-Paap F-Statistic	0.40	0.91	0.10	1.49	0.15
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
E. Fully-Interacted Model					
Change in Ln(Population) $\times$ Pre	-7.226	1.468	4.714	3.950	6.403
	(16.728)	(1.374)	(11.408)	(3.265)	(12.812)
Change in Ln(Population) $\times$ Post	0.037	4.065	5.695	3.279	-0.764
	(1.576)	(8.747)	(18.928)	(13.940)	(3.908)
Time Trend $\times$ Pre	7.471	-1.311	-4.589	-3.818	-6.296
	(16.873)	(1.399)	(11.596)	(3.365)	(13.045)
Time Trend $\times$ Post	-0.101	-1.223	-1.677	-1.004	0.122
	(0.458)	(2.456)	(5.159)	(3.808)	(1.089)
Kleibergen-Paap F-Statistic	0.00	0.12	0.05	0.03	0.11
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39

Notes: Panel A Column 1 presents the replicated result for Table 5 Column 4, 1940-1980, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D.11: *2SLS Estimates - Pre-Post Classification Cervellati and Sunde (2011)*

	Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, COW2				
	(1)	(2)	(3)	(4)	(5)
Predicted Mortality Rate Definition:	Acemoglu and Johnson (2007)	Country-Level	Country-Level Suppl. w. Town-Level	Country-Level Repl. w. Town-Level	Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Ln(Population)	0.617***	0.587**	0.553***	0.780***	0.752***
	(0.213)	(0.253)	(0.204)	(0.244)	(0.232)
Time Trend	-0.353***	-0.333*	-0.311**	-0.462***	-0.443***
	(0.129)	(0.167)	(0.128)	(0.152)	(0.148)
Kleibergen-Paap F-Statistic	30.90	11.29	9.24	39.05	11.51
Countries	51	51	51	51	51
Number of Clusters	50	50	50	50	50
B. Classified Pre-Post-Sample					
Change in Ln(Population)	0.664***	0.506**	0.525**	0.794***	0.746***
	(0.247)	(0.241)	(0.215)	(0.268)	(0.246)
Time Trend	-0.402**	-0.290*	-0.303**	-0.495***	-0.461***
	(0.161)	(0.170)	(0.142)	(0.179)	(0.167)
Kleibergen-Paap F-Statistic	25.07	11.24	7.53	36.43	9.70
Countries	44	44	44	44	44
Number of Clusters	43	43	43	43	43
C. Semi-Interacted Model					
Change in Ln(Population)	-0.131	0.205	0.196	-0.218	-0.167
	(0.431)	(0.898)	(0.643)	(0.579)	(0.493)
Change in Ln(Population) × Post	-1.152	-0.487	-0.508	-1.569	-1.349
	(0.916)	(1.771)	(1.207)	(1.288)	(1.082)
Time Trend	0.368	0.011	0.021	0.504	0.428
	(0.466)	(0.949)	(0.676)	(0.633)	(0.535)
Kleibergen-Paap F-Statistic	2.50	0.63	1.33	1.83	1.99
Countries	44	44	44	44	44
Number of Clusters	43	43	43	43	43
D. Different Time Trend					
Change in Ln(Population)	-3.418	4.117	-3.716	73.840	-6.539
	(5.000)	(16.451)	(15.448)	(1,438.094)	(19.016)
Time Trend × Pre	3.684	-4.054	3.990	-75.654	6.889
	(5.119)	(16.925)	(15.843)	(1,478.089)	(19.464)
Time Trend × Post	1.223	-1.563	1.333	-27.344	2.377
	(1.841)	(6.104)	(5.709)	(532.257)	(7.010)
Kleibergen-Paap F-Statistic	0.80	0.05	0.09	0.00	0.16
Countries	44	44	44	44	44
Number of Clusters	43	43	43	43	43
E. Fully-Interacted Model					
Change in Ln(Population) × Pre	-25.837	2.321	26.831	5.826	24.032
	(172.613)	(3.157)	(458.183)	(7.091)	(200.491)
Change in Ln(Population) × Post	0.599	1.302	1.302	0.802	0.661
	(0.699)	(1.291)	(1.291)	(0.827)	(0.694)
Time Trend × Pre	26.706	-2.209	-27.379	-5.809	-24.505
	(177.066)	(3.262)	(470.802)	(7.387)	(206.214)
Time Trend × Post	-0.262	-0.522	-0.522	-0.337	-0.285
	(0.287)	(0.500)	(0.500)	(0.337)	(0.289)
Kleibergen-Paap F-Statistic	0.00	0.00	0.00	0.00	0.00
Countries	44	44	44	44	44
Number of Clusters	43	43	43	43	43

Notes: Panel A Column 1 presents the replicated result for Table 4 Column 1, 1940-1980, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D.12: *2SLS Estimates - Pre-Post Classification Cervellati and Sunde (2011) Low- and Middle-Income Countries Sample*

	Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, COW2				
	(1)	(2)	(3)	(4)	(5)
Predicted Mortality Rate Definition:	Acemoglu and Johnson (2007)	Country-Level	Country-Level Suppl. w. Town-Level	Country-Level Repl. w. Town-Level	Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Ln(Population)	0.828***	0.745**	0.693**	1.015***	0.993***
	(0.294)	(0.351)	(0.271)	(0.327)	(0.321)
Time Trend	-0.535**	-0.475*	-0.437**	-0.673***	-0.657**
	(0.218)	(0.266)	(0.205)	(0.248)	(0.248)
Kleibergen-Paap F-Statistic	16.02	6.07	5.66	17.80	6.35
Countries	40	40	40	40	40
Number of Clusters	39	39	39	39	39
B. Classified Pre-Post-Sample					
Change in Ln(Population)	1.117**	0.704*	0.733**	1.221**	1.161**
	(0.473)	(0.414)	(0.342)	(0.461)	(0.443)
Time Trend	-0.813**	-0.477	-0.501*	-0.897**	-0.849**
	(0.391)	(0.353)	(0.289)	(0.393)	(0.385)
Kleibergen-Paap F-Statistic	8.44	4.70	3.75	11.76	4.16
Countries	33	33	33	33	33
Number of Clusters	32	32	32	32	32
C. Semi-Interacted Model					
Change in Ln(Population)	-1.165	2.179	-4.077	-10.717	-4.049
	(1.512)	(4.992)	(24.865)	(49.581)	(9.653)
Change in Ln(Population) $\times$ Post	-3.950	3.936	-10.321	-27.274	-10.672
	(4.034)	(11.441)	(56.743)	(121.999)	(23.525)
Time Trend	1.428	-2.060	4.417	11.469	4.428
	(1.578)	(5.195)	(25.705)	(51.830)	(10.040)
Kleibergen-Paap F-Statistic	0.70	0.06	0.02	0.02	0.13
Countries	33	33	33	33	33
Number of Clusters	32	32	32	32	32
D. Different Time Trend					
Change in Ln(Population)	-6.914	1.916	74.860	7.116	427.197
	(14.950)	(2.896)	(4,499.689)	(11.606)	(68,215.939)
Time Trend $\times$ Pre	7.274	-1.793	-76.702	-7.134	-438.528
	(15.306)	(2.992)	(4,621.618)	(12.049)	(70,058.502)
Time Trend $\times$ Post	2.139	-0.702	-24.170	-2.375	-137.528
	(4.758)	(0.930)	(1,447.802)	(3.790)	(21,948.662)
Kleibergen-Paap F-Statistic	0.26	0.29	0.00	0.39	0.00
Countries	33	33	33	33	33
Number of Clusters	32	32	32	32	32
E. Fully-Interacted Model					
Change in Ln(Population) $\times$ Pre	-25.837	2.321	26.831	5.826	24.032
	(172.613)	(3.212)	(466.117)	(7.214)	(203.963)
Change in Ln(Population) $\times$ Post	0.260	7.348	7.348	1.655	1.195
	(0.672)	(9.351)	(9.351)	(2.320)	(1.716)
Time Trend $\times$ Pre	26.706	-2.209	-27.379	-5.809	-24.505
	(177.066)	(3.318)	(478.955)	(7.515)	(209.785)
Time Trend $\times$ Post	-0.169	-2.450	-2.450	-0.618	-0.470
	(0.257)	(2.833)	(2.833)	(0.772)	(0.592)
Kleibergen-Paap F-Statistic	0.00	0.40	0.00	0.00	0.00
Countries	33	33	33	33	33
Number of Clusters	32	32	32	32	32

Notes: Panel A Column 1 presents the replicated result for Table 5 Column 4, 1940-1980, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Split-Sample Estimates

Table D.13: *First-Stage Estimates - Split-Sample Regressions*

	Dependent Variable: Change in Ln(Population)				
Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Pre-Transitional Countries					
Change in Predicted Mortality	0.092	-0.160	-0.051	-0.205	-0.062
	(0.194)	(0.176)	(0.149)	(0.154)	(0.144)
Time Trend	1.072***	0.943***	0.981***	0.893***	0.969***
	(0.144)	(0.084)	(0.100)	(0.110)	(0.112)
Adjusted R^2	0.960	0.962	0.960	0.963	0.960
Countries	25	25	25	25	25
Number of Clusters	24	24	24	24	24
B. Post-Transitional Countries					
Change in Predicted Mortality	0.337**	0.489	0.703**	0.566**	0.578**
	(0.161)	(0.308)	(0.319)	(0.238)	(0.246)
Time Trend	0.430***	0.450***	0.507***	0.481***	0.504***
	(0.075)	(0.096)	(0.095)	(0.084)	(0.091)
Adjusted R^2	0.750	0.754	0.773	0.770	0.778
Countries	26	26	26	26	26
Number of Clusters	26	26	26	26	26

Notes: Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D.14: *2SLS Estimates - Split-Sample Regressions*

	Dependent Variable: Change in Years in Conflict/Total Years, 1940-1980, COW2				
Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Pre-Transitional Countries					
Change in Ln(Population)	-7.226	1.468	4.714	3.950	6.403
	(16.728)	(1.359)	(11.289)	(3.231)	(12.679)
Time Trend	7.471	-1.311	-4.589	-3.818	-6.296
	(16.873)	(1.385)	(11.476)	(3.330)	(12.909)
Kleibergen-Paap F-Statistic	0.226	0.821	0.116	1.768	0.186
Countries	25	25	25	25	25
Number of Clusters	24	24	24	24	24
B. Post-Transitional Countries					
Change in Ln(Population)	0.523	0.104	0.727	0.640	0.352
	(0.605)	(1.239)	(0.821)	(0.674)	(0.482)
Time Trend	-0.228	-0.087	-0.296	-0.267	-0.170
	(0.229)	(0.433)	(0.304)	(0.255)	(0.194)
Kleibergen-Paap F-Statistic	4.362	2.524	4.857	5.681	5.526
Countries	26	26	26	26	26
Number of Clusters	26	26	26	26	26

Notes: Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Falsification

Table D.15: *Falsification Exercise - Full Pre-Post Classification*
Low- and Middle-Income Countries Sample

	Dependent Variable: Change in Ln(Population), 1900-1940				
Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Predicted Mortality	-0.198	-0.014	-0.029	-0.204	-0.046
	(0.196)	(0.161)	(0.173)	(0.155)	(0.158)
Time Trend	0.385***	0.486***	0.477***	0.397***	0.466***
	(0.127)	(0.087)	(0.096)	(0.101)	(0.102)
Adjusted R^2	0.004	-0.026	-0.025	0.007	-0.023
Countries	41	40	41	41	41
Number of Clusters	41	40	41	41	41
B. Classified Pre-Post-Sample					
Change in Predicted Mortality	-0.198	-0.014	-0.029	-0.204	-0.045
	(0.198)	(0.161)	(0.174)	(0.155)	(0.159)
Time Trend	0.385***	0.486***	0.478***	0.398***	0.467***
	(0.130)	(0.087)	(0.097)	(0.103)	(0.104)
Adjusted R^2	0.003	-0.026	-0.025	0.006	-0.024
Countries	40	40	40	40	40
Number of Clusters	40	40	40	40	40
C. Semi-Interacted Model					
Change in Predicted Mortality	-0.044	0.032	0.089	-0.080	0.066
	(0.196)	(0.175)	(0.162)	(0.144)	(0.150)
Change in Predicted Mortality × Post	0.625***	0.729***	0.833***	0.710***	0.705***
	(0.179)	(0.230)	(0.232)	(0.212)	(0.192)
Time Trend	0.557***	0.590***	0.634***	0.550***	0.634***
	(0.132)	(0.088)	(0.095)	(0.097)	(0.102)
Marginal Effect of Post	0.581*	0.761**	0.921***	0.630**	0.771***
	(0.288)	(0.283)	(0.304)	(0.269)	(0.264)
Adjusted R^2	0.147	0.110	0.150	0.161	0.169
Countries	40	40	40	40	40
Number of Clusters	40	40	40	40	40
D. Different Time Trend					
Change in Predicted Mortality	0.175	0.129	0.148	0.011	0.122
	(0.200)	(0.161)	(0.151)	(0.142)	(0.141)
Time Trend × Pre	0.722***	0.662***	0.684***	0.613***	0.683***
	(0.143)	(0.085)	(0.093)	(0.097)	(0.101)
Time Trend × Post	0.380***	0.355***	0.363***	0.321***	0.363***
	(0.124)	(0.101)	(0.101)	(0.105)	(0.105)
Adjusted R^2	0.782	0.781	0.784	0.778	0.783
Countries	40	40	40	40	40
Number of Clusters	40	40	40	40	40
E. Fully-Interacted Model					
Change in Predicted Mortality × Pre	0.196	0.172	0.166	0.008	0.125
	(0.239)	(0.168)	(0.150)	(0.147)	(0.146)
Change in Predicted Mortality × Post	0.099	-0.375	-0.369	0.044	0.050
	(0.360)	(0.371)	(0.805)	(0.600)	(0.626)
Time Trend × Pre	0.735***	0.680***	0.694***	0.611***	0.685***
	(0.169)	(0.090)	(0.095)	(0.100)	(0.104)
Time Trend × Post	0.353*	0.206	0.202	0.332	0.336
	(0.203)	(0.185)	(0.328)	(0.270)	(0.314)
Adjusted R^2	0.777	0.780	0.780	0.772	0.777
Countries	40	40	40	40	40
Number of Clusters	40	40	40	40	40

Notes: Panel A Column 1 presents the replicated result for Table 3 Column 8, 1900-1940, in Acemoglu *et al.* (2020). USSR is not included in the classified sample. Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D.16: *Falsification Exercise - Full Pre-Post Classification - Including USSR*

	Dependent Variable: Change in Ln(Population), 1900-1940				
	(1)	(2)	(3)	(4)	(5)
Predicted Mortality Rate Definition:	Acemoglu and Johnson (2007)	Country-Level	Country-Level Suppl. w. Town-Level	Country-Level Repl. w. Town-Level	Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Predicted Mortality	-0.189	-0.032	-0.046	-0.183	-0.057
	(0.138)	(0.138)	(0.148)	(0.115)	(0.130)
Time Trend	0.391***	0.467***	0.459***	0.405***	0.451***
	(0.080)	(0.064)	(0.070)	(0.068)	(0.072)
Adjusted R^2	0.0140	-0.0196	-0.0176	0.00971	-0.0154
Countries	52	51	52	52	52
Number of Clusters	52	51	52	52	52
B. Classified Pre-Post-Sample					
Change in Predicted Mortality	-0.189	-0.032	-0.046	-0.183	-0.057
	(0.138)	(0.138)	(0.148)	(0.115)	(0.130)
Time Trend	0.391***	0.467***	0.459***	0.405***	0.451***
	(0.080)	(0.064)	(0.070)	(0.068)	(0.072)
Adjusted R^2	0.0140	-0.0196	-0.0176	0.00971	-0.0154
Countries	52	51	52	52	52
Number of Clusters	52	51	52	52	52
C. Semi-Interacted Model					
Change in Predicted Mortality	-0.079	0.021	0.063	-0.084	0.035
	(0.136)	(0.150)	(0.139)	(0.110)	(0.125)
Change in Predicted Mortality × Post	0.600***	0.789***	0.864***	0.739***	0.724***
	(0.168)	(0.232)	(0.234)	(0.213)	(0.193)
Time Trend	0.528***	0.582***	0.610***	0.543***	0.603***
	(0.082)	(0.067)	(0.072)	(0.067)	(0.073)
Marginal Effect of Post	0.521**	0.810***	0.928***	0.655**	0.759***
	(0.227)	(0.279)	(0.294)	(0.255)	(0.247)
Adjusted R^2	0.137	0.128	0.157	0.168	0.173
Countries	52	51	52	52	52
Number of Clusters	52	51	52	52	52
D. Different Time Trend					
Change in Predicted Mortality	0.198	0.187	0.187	0.084	0.159
	(0.164)	(0.146)	(0.129)	(0.130)	(0.119)
Time Trend × Pre	0.729***	0.686***	0.698***	0.646***	0.699***
	(0.119)	(0.082)	(0.085)	(0.089)	(0.090)
Time Trend × Post	0.417***	0.405***	0.407***	0.383***	0.408***
	(0.077)	(0.067)	(0.065)	(0.067)	(0.067)
Adjusted R^2	0.785	0.784	0.788	0.781	0.787
Countries	52	51	52	52	52
Number of Clusters	52	51	52	52	52
E. Fully-Interacted Model					
Change in Predicted Mortality × Pre	0.163	0.172	0.161	-0.001	0.115
	(0.226)	(0.166)	(0.147)	(0.143)	(0.143)
Change in Predicted Mortality × Post	0.280	0.278	0.461	0.472	0.479*
	(0.188)	(0.296)	(0.315)	(0.292)	(0.257)
Time Trend × Pre	0.706***	0.680***	0.684***	0.600***	0.672***
	(0.156)	(0.089)	(0.091)	(0.096)	(0.100)
Time Trend × Post	0.440***	0.427***	0.474***	0.484***	0.503***
	(0.089)	(0.098)	(0.104)	(0.096)	(0.098)
Adjusted R^2	0.781	0.780	0.785	0.782	0.787
Countries	52	51	52	52	52
Number of Clusters	52	51	52	52	52

Notes: Panel A Column 1 presents the replicated result for Table 3 Column 7, 1900-1940, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D.17: *Falsification Exercise - Full Pre-Post Classification - Including USSR Low- and Middle-Income Countries Sample*

	Dependent Variable: Change in Ln(Population), 1900-1940				
Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Predicted Mortality	-0.198	-0.014	-0.029	-0.204	-0.046
	(0.196)	(0.161)	(0.173)	(0.155)	(0.158)
Time Trend	0.385***	0.486***	0.477***	0.397***	0.466***
	(0.127)	(0.087)	(0.096)	(0.101)	(0.102)
Adjusted R^2	0.004	-0.026	-0.025	0.007	-0.023
Countries	41	40	41	41	41
Number of Clusters	41	40	41	41	41
B. Classified Pre-Post-Sample					
Change in Predicted Mortality	-0.198	-0.014	-0.029	-0.204	-0.046
	(0.196)	(0.161)	(0.173)	(0.155)	(0.158)
Time Trend	0.385***	0.486***	0.477***	0.397***	0.466***
	(0.127)	(0.087)	(0.096)	(0.101)	(0.102)
Adjusted R^2	0.004	-0.026	-0.025	0.007	-0.023
Countries	41	40	41	41	41
Number of Clusters	41	40	41	41	41
C. Semi-Interacted Model					
Change in Predicted Mortality	-0.054	0.032	0.085	-0.084	0.060
	(0.192)	(0.175)	(0.161)	(0.143)	(0.149)
Change in Predicted Mortality × Post	0.611***	0.729***	0.814***	0.695***	0.688***
	(0.173)	(0.230)	(0.229)	(0.209)	(0.189)
Time Trend	0.547***	0.590***	0.627***	0.543***	0.624***
	(0.127)	(0.088)	(0.093)	(0.094)	(0.099)
Marginal Effect of Post	0.558**	0.761**	0.899***	0.610**	0.747***
	(0.276)	(0.283)	(0.300)	(0.264)	(0.258)
Adjusted R^2	0.144	0.110	0.146	0.157	0.164
Countries	41	40	41	41	41
Number of Clusters	41	40	41	41	41
D. Different Time Trend					
Change in Predicted Mortality	0.149	0.129	0.142	0.003	0.112
	(0.193)	(0.161)	(0.149)	(0.140)	(0.140)
Time Trend × Pre	0.697***	0.662***	0.675***	0.602***	0.670***
	(0.136)	(0.085)	(0.091)	(0.094)	(0.098)
Time Trend × Post	0.370***	0.355***	0.361***	0.318***	0.360***
	(0.122)	(0.101)	(0.100)	(0.105)	(0.105)
Adjusted R^2	0.783	0.781	0.785	0.780	0.784
Countries	41	40	41	41	41
Number of Clusters	41	40	41	41	41
E. Fully-Interacted Model					
Change in Predicted Mortality × Pre	0.163	0.172	0.161	-0.001	0.115
	(0.228)	(0.168)	(0.148)	(0.145)	(0.145)
Change in Predicted Mortality × Post	0.099	-0.375	-0.369	0.044	0.050
	(0.360)	(0.371)	(0.804)	(0.599)	(0.625)
Time Trend × Pre	0.706***	0.680***	0.684***	0.600***	0.672***
	(0.158)	(0.090)	(0.093)	(0.097)	(0.101)
Time Trend × Post	0.353*	0.206	0.202	0.332	0.336
	(0.203)	(0.185)	(0.328)	(0.269)	(0.314)
Adjusted R^2	0.777	0.780	0.782	0.774	0.778
Countries	41	40	41	41	41
Number of Clusters	41	40	41	41	41

Notes: Panel A Column 1 presents the replicated result for Table 3 Column 8, 1900-1940, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Classification of Cervellati and Sunde (2011)

Table D.18: *Falsification Exercise - Pre-Post Classification Cervellati and Sunde (2011)*

	Dependent Variable: Change in Ln(Population), 1900-1940				
Predicted Mortality Rate Definition:	(1) Acemoglu and Johnson (2007)	(2) Country-Level	(3) Country-Level Suppl. w. Town-Level	(4) Country-Level Repl. w. Town-Level	(5) Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Predicted Mortality	-0.189	-0.032	-0.046	-0.183	-0.057
	(0.138)	(0.138)	(0.148)	(0.115)	(0.130)
Time Trend	0.391***	0.467***	0.459***	0.405***	0.451***
	(0.080)	(0.064)	(0.070)	(0.068)	(0.072)
Adjusted R^2	0.014	-0.020	-0.018	0.010	-0.015
Countries	52	51	52	52	52
Number of Clusters	52	51	52	52	52
B. Classified Pre-Post-Sample					
Change in Predicted Mortality	-0.171	-0.007	-0.035	-0.165	-0.044
	(0.151)	(0.142)	(0.152)	(0.119)	(0.133)
Time Trend	0.418***	0.494***	0.483***	0.430***	0.476***
	(0.089)	(0.069)	(0.076)	(0.075)	(0.078)
Adjusted R^2	0.004	-0.023	-0.022	0.001	-0.020
Countries	45	45	45	45	45
Number of Clusters	45	45	45	45	45
C. Semi-Interacted Model					
Change in Predicted Mortality	-0.079	0.122	0.119	-0.042	0.078
	(0.147)	(0.146)	(0.136)	(0.118)	(0.126)
Change in Predicted Mortality × Post	0.605***	1.063***	1.104***	0.841***	0.871***
	(0.188)	(0.336)	(0.347)	(0.292)	(0.276)
Time Trend	0.541***	0.650***	0.660***	0.578***	0.646***
	(0.087)	(0.072)	(0.077)	(0.076)	(0.081)
Marginal Effect of Post	0.526**	1.185***	1.223***	0.799**	0.950***
	(0.238)	(0.394)	(0.410)	(0.342)	(0.335)
Adjusted R^2	0.117	0.163	0.167	0.159	0.177
Countries	45	45	45	45	45
Number of Clusters	45	45	45	45	45
D. Different Time Trend					
Change in Predicted Mortality	0.214	0.241	0.227	0.134	0.200
	(0.179)	(0.157)	(0.135)	(0.147)	(0.127)
Time Trend × Pre	0.751***	0.719***	0.736***	0.688***	0.742***
	(0.128)	(0.092)	(0.095)	(0.104)	(0.102)
Time Trend × Post	0.432***	0.427***	0.424***	0.406***	0.428***
	(0.086)	(0.074)	(0.072)	(0.075)	(0.074)
Adjusted R^2	0.779	0.783	0.785	0.776	0.784
Countries	45	45	45	45	45
Number of Clusters	45	45	45	45	45
E. Fully-Interacted Model					
Change in Predicted Mortality × Pre	0.175	0.200	0.195	0.042	0.153
	(0.253)	(0.172)	(0.150)	(0.160)	(0.148)
Change in Predicted Mortality × Post	0.297	0.728	0.728	0.612	0.652*
	(0.186)	(0.440)	(0.440)	(0.376)	(0.350)
Time Trend × Pre	0.726***	0.701***	0.719***	0.637***	0.712***
	(0.173)	(0.096)	(0.100)	(0.111)	(0.111)
Time Trend × Post	0.455***	0.533***	0.533***	0.520***	0.548***
	(0.094)	(0.105)	(0.105)	(0.103)	(0.104)
Adjusted R^2	0.774	0.781	0.783	0.778	0.785
Countries	45	45	45	45	45
Number of Clusters	45	45	45	45	45

Notes: Panel A Column 1 presents the replicated result for Table 3 Column 7, 1900-1940, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D.19: *Falsification Exercise - Pre-Post Classification Cervellati and Sunde (2011) Low- and Middle-Income Countries Sample*

	Dependent Variable: Change in Ln(Population), 1900-1940				
	(1)	(2)	(3)	(4)	(5)
Predicted Mortality Rate Definition:	Acemoglu and Johnson (2007)	Country-Level	Country-Level Suppl. w. Town-Level	Country-Level Repl. w. Town-Level	Maximum
A. Sample as in Acemoglu *et al.* (2020)					
Change in Predicted Mortality	-0.198	-0.014	-0.029	-0.204	-0.046
	(0.196)	(0.161)	(0.173)	(0.155)	(0.158)
Time Trend	0.385***	0.486***	0.477***	0.397***	0.466***
	(0.127)	(0.087)	(0.096)	(0.101)	(0.102)
Adjusted R^2	0.004	-0.026	-0.025	0.007	-0.023
Countries	41	40	41	41	41
Number of Clusters	41	40	41	41	41
B. Classified Pre-Post-Sample					
Change in Predicted Mortality	-0.136	0.043	0.007	-0.152	-0.007
	(0.237)	(0.170)	(0.179)	(0.175)	(0.165)
Time Trend	0.444***	0.536***	0.522***	0.445***	0.515***
	(0.161)	(0.099)	(0.110)	(0.123)	(0.118)
Adjusted R^2	-0.019	-0.030	-0.031	-0.014	-0.031
Countries	34	34	34	34	34
Number of Clusters	34	34	34	34	34
C. Semi-Interacted Model					
Change in Predicted Mortality	-0.026	0.148	0.147	-0.018	0.118
	(0.227)	(0.174)	(0.159)	(0.162)	(0.152)
Change in Predicted Mortality × Post	0.615***	0.959***	1.008***	0.783**	0.812***
	(0.194)	(0.343)	(0.347)	(0.288)	(0.273)
Time Trend	0.579***	0.667***	0.681***	0.595***	0.681***
	(0.151)	(0.094)	(0.101)	(0.111)	(0.111)
Marginal Effect of Post	0.589**	1.107***	1.154***	0.766**	0.930***
	(0.287)	(0.390)	(0.404)	(0.342)	(0.335)
Adjusted R^2	0.114	0.135	0.141	0.134	0.157
Countries	34	34	34	34	34
Number of Clusters	34	34	34	34	34
D. Different Time Trend					
Change in Predicted Mortality	0.172	0.189	0.187	0.060	0.158
	(0.218)	(0.172)	(0.151)	(0.158)	(0.145)
Time Trend × Pre	0.724***	0.696***	0.715***	0.647***	0.715***
	(0.151)	(0.095)	(0.100)	(0.110)	(0.109)
Time Trend × Post	0.386**	0.377***	0.376***	0.342**	0.380***
	(0.164)	(0.133)	(0.129)	(0.139)	(0.135)
Adjusted R^2	0.774	0.777	0.779	0.770	0.778
Countries	34	34	34	34	34
Number of Clusters	34	34	34	34	34
E. Fully-Interacted Model					
Change in Predicted Mortality × Pre	0.175	0.200	0.195	0.042	0.153
	(0.257)	(0.175)	(0.153)	(0.162)	(0.150)
Change in Predicted Mortality × Post	0.162	-0.236	-0.236	0.301	0.322
	(0.429)	(1.121)	(1.121)	(0.771)	(0.893)
Time Trend × Pre	0.726***	0.701***	0.719***	0.637***	0.712***
	(0.176)	(0.098)	(0.102)	(0.113)	(0.113)
Time Trend × Post	0.383	0.254	0.254	0.422	0.440
	(0.269)	(0.435)	(0.435)	(0.348)	(0.429)
Adjusted R^2	0.766	0.770	0.773	0.763	0.770
Countries	34	34	34	34	34
Number of Clusters	34	34	34	34	34

Notes: Panel A Column 1 presents the replicated result for Table 3 Column 8, 1900-1940, in Acemoglu *et al.* (2020). Robust standard errors (clustered by country) are reported in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

D.2 Additional Figures

D.2.1 First-Stage Figure

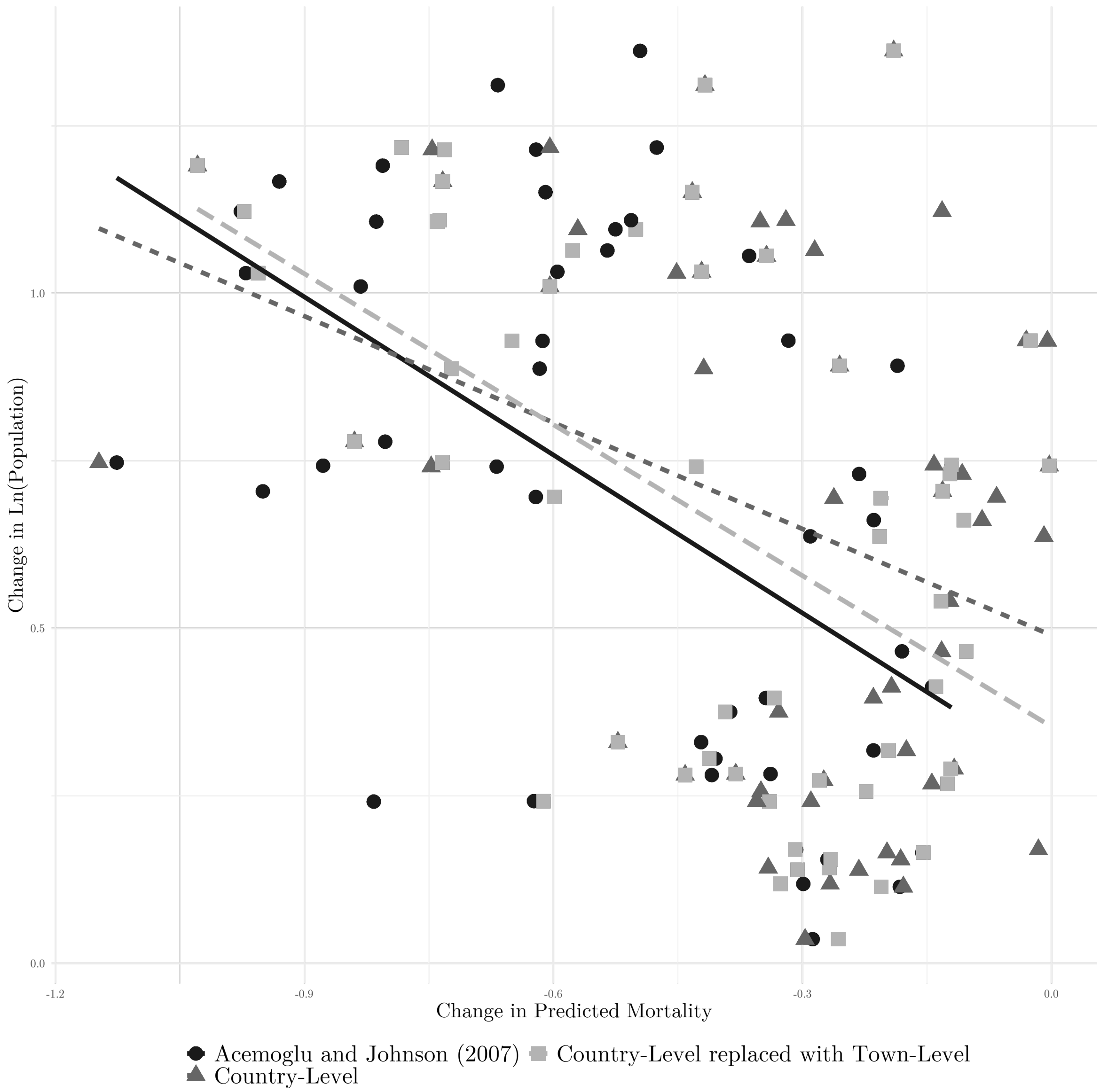
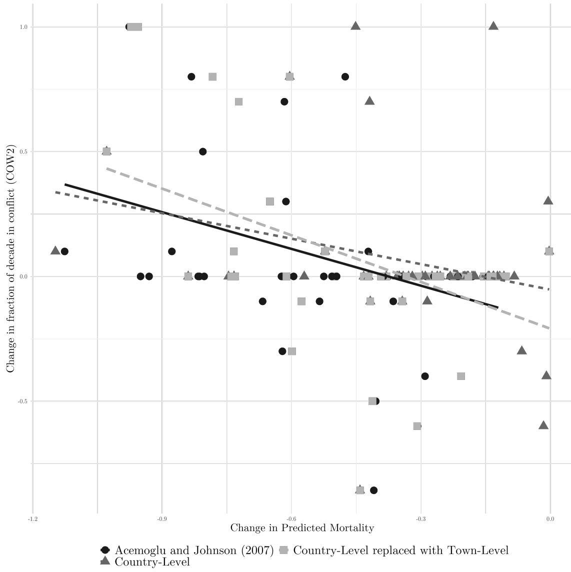


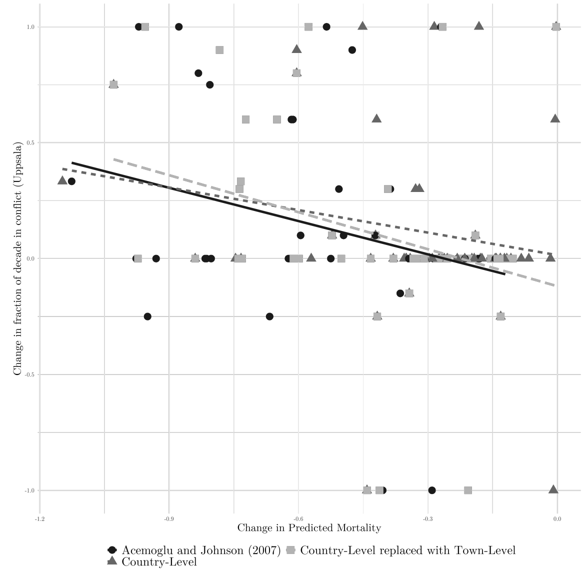
Figure D.1: *First-Stage Estimates - 1940-1980*

Notes: Outcome variables and change in predicted mortality, 1940-1980, are depicted for three different definitions of the predicted mortality instrument for the baseline sample in Acemoglu et al. (2020): (i) the original data as provided by Acemoglu and Johnson (2007) (black dots); (ii) the revised predicted mortality rate instrument for only country-level sources (grey triangles); (iii) the revised predicted mortality rate instrument for country-level sources replaced with town-level data (light grey squares). The corresponding linear projections are (i) black solid line, (ii) grey short-dashed line, and (iii) long-dashed light-grey line.

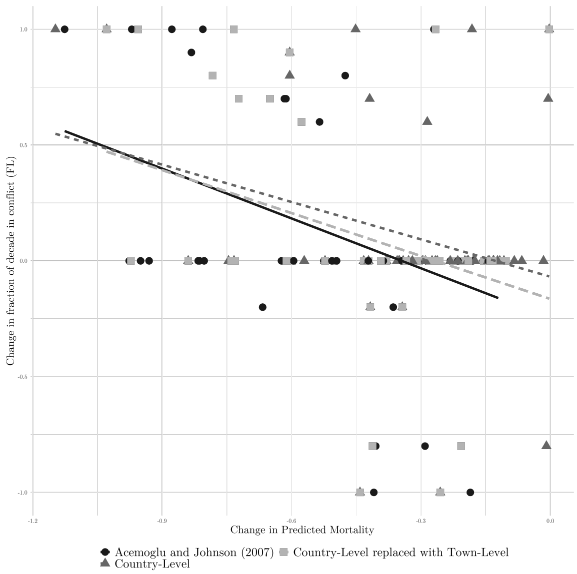
D.2.2 Reduced-Form Figures



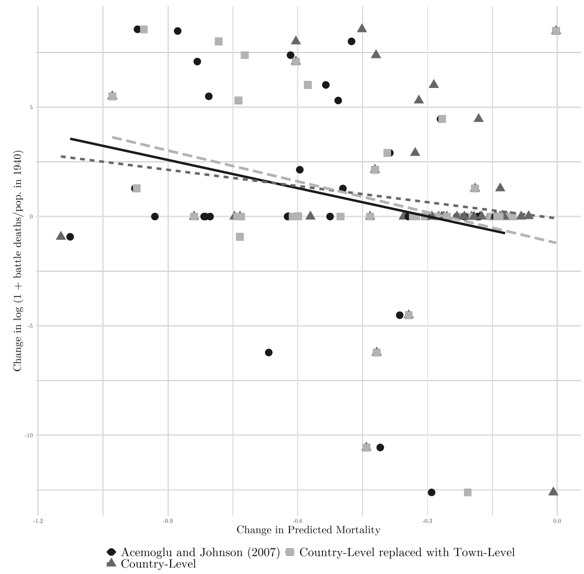
(a) Change in Fraction of Decade in Conflict (COW2)



(b) Change in Fraction of Decade in Conflict (Uppsala)



(c) Change in Fraction of Decade in Conflict (FL)



(d) Change in log (1 + Battle Deaths/Pop. in 1940)

Figure D.2: *Reduced-Form Estimates*
1940-1980 - Acemoglu et al. (2020)

Notes: Outcome variables and change in predicted mortality, 1940-1980, are depicted for three different definitions of the predicted mortality instrument for the baseline sample in Acemoglu et al. (2020): (i) the original data as provided by Acemoglu and Johnson (2007) (black dots); (ii) the revised predicted mortality rate instrument for only country-level sources (grey triangles); (iii) the revised predicted mortality rate instrument for country-level sources replaced with town-level data (light grey squares). The corresponding linear projections are (i) black solid line, (ii) grey short-dashed line, and (iii) long-dashed light-grey line.

D.3 Pre-Post Classification

Table D.20: *Pre-Post Classification of the Base Sample*

Country	ISO-3	Criteria 1, 2, 3	Criteria 1, 2a, 3	Criteria 1, 2, 3a	Rich	Acemoglu et al. (2020)	Acemoglu and Johnson (2007)
Classification by Cervellati and Sunde (2011)							
Argentina	ARG	1	1	1	0	1	1
Australia	AUS	1	1	1	1	1	1
Austria	AUT	1	1	1	0	0*	1
Belgium	BEL	1	1	1	1	1	1
Bangladesh	BGD	0	0	0	0	0	1
Brazil	BRA	0	0	0	0	1	1
Canada	CAN	1	1	0	1	1	1
Switzerland	CHE	1	1	1	1	1	1
Chile	CHL	0	0	0	0	1	1
China	CHN	0	0	0	0	1	1
Colombia	COL	0	0	0	0	1	1
Costa Rica	CRI	0	0	0	0	1	1
Germany	DEU	1	1	1	1	1	1
Denmark	DNK	1	1	1	1	1	1
Ecuador	ECU	0	0	0	0	1	1
Spain	ESP	1	1	1	0	1	1
Finland	FIN	1	1	0	0	1	1
France	FRA	1	1	1	0	1	1
United Kingdom	GBR	1	1	1	1	1	1
Greece	GRC	1	0	1	0	1	1
Guatemala	GTM	0	0	0	0	1	1
Honduras	HND	0	0	0	0	1	1
Indonesia	IDN	0	0	0	0	1	1
India	IND	0	0	0	0	1	1
Ireland	IRL	1	0	1	0	1	1
Italy	ITA	1	1	1	0	1	1
Korea, Rep.	KOR	0	0	0	0	1	1
Sri Lanka	LKA	0	0	0	0	1	1
Mexico	MEX	0	0	0	0	1	1
Myanmar	MMR	0	0	0	0	1	1
Malaysia	MYS	0	0	0	0	0	1
Nicaragua	NIC	0	0	0	0	1	1
Netherlands	NLD	1	1	0	1	1	1
Norway	NOR	1	1	1	0	1	1
New Zealand	NZL	1	0	0	1	1	1
Pakistan	PAK	0	0	0	0	1	1
Panama	PAN	0	0	0	0	1	1
Peru	PER	0	0	0	0	1	1
Philippines	PHL	0	0	0	0	1	1
Portugal	PRT	1	1	0	0	1	1
Paraguay	PRY	0	0	0	0	1	1
El Salvador	SLV	0	0	0	0	1	1
Sweden	SWE	1	1	1	1	1	1
Thailand	THA	0	0	0	0	1	1
Uruguay	URY	1	1	1	0	1	1
United States	USA	1	1	1	1	1	1
Venezuela, Rb	VEN	0	0	0	0	1	1
Additional Classification							
Bulgaria	BGR	1	1	1	0	1	0
Bolivia	BOL	0	0	0	0	1	0
Czech Republic	CZE	1	0	1	0	1	0
Hungary	HUN	1	1	1	0	1	0
Poland	POL	1	0	1	0	1	0
Romania	ROM	1	1	0	0	1	0
Turkey	TUR	0	0	0	0	1	0
Acemoglu *et al.* (2020)		26	21	20	11	51	
Acemoglu and Johnson (2007)		22	19	17	11		47

* Following Acemoglu *et al.* (2020), Austria is neither included in the sample for first-stage regressions nor in the sample for 2SLS estimates with COW2 as dependent variable. *Notes:* For more details on the country classification of the base sample in Acemoglu and Johnson (2007), see Cervellati and Sunde (2011).

The detail of classification for each country not being classified by Cervellati and Sunde (2011) is as follows:

1. Bolivia—Reher (2004) dates the onset of fertility decline in 1975. Not all three criteria for post-transitional countries are ever fulfilled by 1940. Bolivia is classified as a pre-transitional country.

2. Bulgaria—Reher (2004) dates the onset of fertility decline in 1925. UN (1951) reports the crude birth rate for 1940 as 22.20. Cockerham (1999) has a life expectancy at birth in 1935-1939 of 51.0 (males) and 52.6 (females), an average of 51.8. Acemoglu *et al.* (2020) has an average of 59.1 in 1940. All criteria for post-transitional countries are fulfilled. Bulgaria is classified as a post-transitional country.

3. Czech Republic—Reher (2004) does not date the onset of fertility decline. Estimates of Delventhal *et al.* (2021) suggest that the onset of fertility decline in Czechslovakia started in 1834. UN (1949) reports the crude birth rate for 1940 as 20.60. UN (1968) has a life expectancy at birth in 1937 of 54.92 (males) and 58.66 (females), an average of 56.79. Acemoglu *et al.* (2020) has an average of 58.3 in 1940. Except for the unknown onset of fertility decline (Criteria 1, 2a, 3 = 0), the Czech Republic is classified as a post-transitional country.

4. Hungary—Reher (2004) dates the onset of fertility decline in 1890. UN (1949) reports the crude birth rate for 1940 as 20. UN (1968) has a (provisional) life expectancy at birth in 1941 of 54.92 (males) and 58.22 (females), an average of 56.57. Acemoglu *et al.* (2020) has an average of 56 in 1940. All criteria for post-transitional countries are fulfilled. Hungary is classified as a post-transitional country.

5. Poland—Reher (2004) does not date the onset of fertility decline. Delventhal *et al.* (2021) do not estimate the onset of the fertility decline. Mitchell (2007b) reports the crude birth rate for 1938 as 24.30. UN (1968) has a life expectancy at birth in 1931-1932 of 48.2 (males) and 51.4 (females). In 1948, life expectancy at birth for males is 55.6 and for females is 62.6. Following the linear interpolation as in Acemoglu and Johnson

(2007), the average life expectancy at birth in 1940 is 54.31. Acemoglu *et al.* (2020) has an average of 55.1 in 1940. Except for the unknown onset of fertility decline (Criteria 1, 2a, 3 = 0), Poland is classified as a post-transitional country.

6. Romania—Reher (2004) dates the onset of fertility decline in 1935. UN (1949) reports the crude birth rate for 1940 as 26.5. UN (1968) has life expectancy at birth in 1932 of 41.01 (both). UNDESA (2019b) has a life expectancy at birth in 1950-1955 of 59.4 (males) and 62.8 (females), an average of 61.1. Following the linear interpolation as in Acemoglu and Johnson (2007), the average life expectancy at birth in 1940 is 53.65. Acemoglu *et al.* (2020) has an average of 49.5 in 1940. Romania is classified as a post-transitional country.

7. Turkey—Reher (2004) does not date the onset of fertility decline. Estimates of Delventhal *et al.* (2021) suggest that the onset of fertility decline in Turkey started in 1958. UN (1967) reports the crude birth rate for 1950-54 as 43. According to UNDESA (2019b), the first time that the crude birth rate is below 30 with 27.8 is in 1985-1990. Crude birth rate has always been larger than 30 according to Shorter and Macura (1982). UN (1968) has a life expectancy at birth in 1950-1951 of 46.0 (males) and 51.41 (females), an average of 48.205. According to UNDESA (2019b), the first time that life expectancy (at birth) is above 50 years with 50.9 for males and 56.7 for females is in 1970-75, with an average of 53.8. No average life expectancy in 1940 is provided by Acemoglu *et al.* (2020). Turkey is classified as a pre-transitional country.

8. Russian Federation (USSR)—Reher (2004) does not date the onset of fertility decline. Estimates of Delventhal *et al.* (2021) suggest that the onset of fertility decline in the Russian Federation started in 1900. Mitchell (2007b) reports the crude birth rate for 1940 as 31.2. Lorimer (1946) has a life expectancy at birth in 1938-1939 of 46.7 (males) and 50.2 (females), an average of 48.4. Acemoglu *et al.* (2020) has an average of 56.2 in 1940. Given the unknown onset of the fertility decline and a crude birth rate larger than 30, the Russian Federation (USSR) is classified as a pre-transitional country.

Eidesstattliche Versicherung

Ich versichere hiermit eidesstattlich, dass ich die vorliegende Arbeit selbständig und ohne fremde Hilfe verfasst habe. Die aus fremden Quellen direkt oder indirekt übernommenen Gedanken sowie mir gegebene Anregungen sind als solche kenntlich gemacht.
Die Arbeit wurde bisher keiner anderen Prüfungsbehörde vorgelegt und auch noch nicht veröffentlicht. Sofern ein Teil der Arbeit aus bereits veröffentlichten Papers besteht, habe ich dies ausdrücklich angegeben.

München, 22.05.2023	Thomas Überfuhr
Datum	Unterschrift