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Barry R. Chiswick
George Washington University and IZA

RaeAnn Halenda Robinson
George Washington University

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IZA – Institute of Labor Economics

Schaumburg-Lippe-Straße 5–9
53113 Bonn, Germany

Phone: +49-228-3894-0
Email: publications@iza.org

www.iza.org

ABSTRACT

The Labor Market Attainment of Immigrants in the Antebellum United States*

This paper analyzes the occupational status of adult White foreign-born men in the antebellum United States, compared to White native-born men, and among the foreign born by country of origin. Hypotheses are developed regarding the effects on occupational status of human capital, demographic, and immigrant-related variables. The hypotheses are tested using the PUMS data for the 100 percent sample (full count) from the 1850 Census of Population, the first census to ask for the male respondent's occupation, as well as the linked 1850-1860 Census data. Two quantitative measures of occupational status serve as the dependent variables – the Occupational Income Score and the Ducan Socioeconomic Index. The hypotheses are found to be consistent with the data. Moreover, other variables the same, while there is a large gap in occupational status between the foreign and native born just after the former arrive, this gap narrows very quickly and, other variables the same, White male immigrants reached occupational-income parity with their native-born counterparts at about 8.4 years after immigration.

JEL Classification: N31, J15, J62

Keywords: immigrants, occupational status, Occupational Income Score, Duncan Socioeconomic Index, 1850 Census of Population, Antebellum United States, labor market analysis, longitudinal analysis (1850-1860)

Corresponding author:
Barry R. Chiswick
Department of Economics
George Washington University
Monroe Hall, Room 340
2115 G Street, NW
Washington, DC 20052
USA

E-mail: brchis@gwu.edu

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I. Introduction

The United States has viewed itself as a country of immigrants, with ebbs and flows over time in the share of the population that is foreign born, as well as their countries of origin. [1] There have also been ebbs and flows in the research interest in the relative economic achievements of immigrants compared to the native-born population.[2] In large part due to limitations on the availability of quantitative data on the immigrant experience in the US in the antebellum period, there has been relatively little research on this period.[3]

The purpose of this article is to do the first systematic quantitative nationwide analysis of the occupational attainment of White foreign-born adult males compared to their native-born White counterparts in the antebellum period. This will be done using the recently released full count (100 percent sample) microdata file from the 1850 Census of Population, Schedule 1, on

[1] The foreign-born proportion of the population in 1850 was about 10 percent, increased to about 15 percent in 1920, then declined to below 5 percent in 1970, and then has increased to nearly 14 percent today (Migration Policy Institute Data Hub, 2023).

[2] For the early 20th century, these studies include Carpenter (1927), Douglas (1919) and US Immigration Commission (1911), commonly known as the Dillingham Commission Report. With the post-WWII increase in immigration, greater availability of data and the ease of analyzing these data, starting with Chiswick (1978 a, b), there has been a sharp growth in research on immigrant economic adjustment in the US and other countries.

[3] A notable exception is Ferrie (1999), which tracked the progress of German, Irish, and British immigrants in selected counties from their shipboard arrival in the 1840s to the 1860 Census. For frequency distributions of the occupational attainment of free males in the US in 1850, but not by country of birth, see the contemporaneous Census analyses in De Bow (1853, 1854).

Far more research has been conducted on the immigrants who arrived during the age of mass migration, the four decades 1880 to 1924. See, for example, Abramitzky, et al. (2020 and 2014), Chiswick (2020, Chapters 3 to 5), Douglas (1919), and Duleep, et al. (2022). Adjustment patterns for these immigrants mirrors those of the late 20th century immigrants.

the free population of the US (Minnesota Population Center, 2020).[4] The methodology is a quantitative analysis using the economic approach to the study of immigrant labor market attainment developed for the late 20th century. The measure of immigrant labor market attainment will be based on their detailed occupations as reported in the 1850 Census. Reported occupations are a categorical variable that are converted into a continuous quantitative variable by using two measures, the Occupational Income Score (OccInc) and the Duncan Socioeconomic Index (SEI) (IPUMS-USA, n.d. c; Duncan, 1961; Hauser and Warren, 1997; and Warren, Sheridan, and Hauser, 1987). The full count 1850 Census of population microdata file, with these two quantitative measures of occupational status for all free adult men, has been made available by the Minnesota Population Center (MPC) (2020).

We hypothesize that among adult male immigrants and the native-born free people, occupational attainment is higher among those with greater labor market experience, who are literate, who are married, who live in an urban area, and among the foreign born, with longer duration in the United States. These hypotheses are consistent with the data. While the foreign born at arrival have a lower occupational attainment than the native born, the gap narrows with duration in the US and closes by the end of the first decade in the country. Differences by country of origin among the foreign born are also explored.

Section II, The Background, sets the stage for the analysis by providing a brief historical context of the foreign-born population in 1850. Section III describes the 1850 Census of Population, with a particular focus on the variables that are of central concern in the statistical

[4] Of note, these data do not include enslaved persons (of whom there were approximately 3.2 million in the US in 1850, and were enumerated on Schedule 2 of the census) or the majority of Native American tribes (described as “Indians not taxed” in the 1850 Census report, whom were largely not enumerated at all) (De Bow, 1853, p. liv).

analysis. The statistical model and the central hypotheses to be tested are presented in Section IV. This is followed in Section V by the econometric analysis of adult White male immigrant occupational status in 1850 compared to the White native-born adult men, and among the foreign born by country of origin. Section VI is a longitudinal econometric analysis using the linked data from the 1850 and 1860 Censuses of Population. The Summary and Conclusions are reported in Section VII.

II. The Background

Immigration to the United States was first recorded on a large scale in 1820 for entry at seaports due to a 1819 law that required every ship carrying passengers that arrived from a foreign port to file with the US port authorities a list of passengers on the ship (Cohn, 2017). The volume of immigration was low during the 1820s (128,502 during the decade compared to a total population of about 12.9 million in 1830), increasing in the 1830s (538,381 arrivals compared to a total population of 17.1 million in 1840), and because of famines and revolutions in western and central Europe increased further in the 1840s (1,427,337 arrivals compared to a total population of 23.2 million in 1850) (US Department of Homeland Security, 2014, Table 2; and De Bow, 1853, Table I). The crossings of land borders with Canada and Mexico were not systematically recorded in those years.[5]

[5] In the 1850 Census country of birth data for free males age 20 and over, Canada contributed about 5 percent of the foreign born, but by the recorded immigration data for 1820 to 1849, Canada provided about 2 percent of the foreign born (approximately 56 thousand out of 2.4 million), while for Mexico the 0.8 percent of the foreign born from the Census contrasts with the less than one-half of one percent among recorded immigrants. The sharp difference in the share of immigrants from Canada and Mexico as reported in the Census and as reported in the immigrant arrivals data is consistent with the under-reporting of land crossings. (US Department of Homeland Security, 2014, Table 2; Minnesota Population Center 2020, microdata file)

While the volume of immigration to the US varied over time, the 1840s and early 1850s can be considered one of the waves of mass migration and, in fact, the period from 1847 to 1854 saw the highest rate of immigration in US history. Further, this marked an increase in the diversity of immigrants coming to the US. In colonial times and at the turn of the nineteenth century, most immigrants were English-speaking Protestants, primarily arriving from Britain. However, in the 1830s and 1840s, more rapid population growth in Europe, as well as the impact of the potato famine on not only Ireland but also other parts of Northwestern Europe, in addition to revolution and civil unrest in Western and Central Europe, resulted in an increased rate of immigration from Europe, particularly from Ireland and Germany, in addition to those from Britain (Cohn, 2017).[6] The accelerating industrialization of the United States and the opening up of new farmlands made immigration to the US more attractive. Additionally, improvements in shipping, such as the use of steamships to cross the Atlantic starting in the 1840s, not only dramatically decreased the voyage duration but also increased its comfort and safety for passengers, thus encouraging an increase in the volume of immigration.

This was a period with virtually no restriction on immigration into the United States, a policy which was challenged during a nativist outbreak in the 1850s (Cohn, 2017). The anti-immigrant sentiment arose, in part, due to the fact that more of the recent arrivals in the 1840s were "Catholic and unskilled," in contrast to commercial workers, mainly merchants, and other skilled workers, who made up a higher proportion of immigrants in the 1820s and 1830s (Cohn, 2017; US Department of Commerce, 1976). In the first half of the nineteenth century, farmers comprised a significant portion of immigrants arriving to the US, though their relative proportion

[6] See also Thomas (1954), Hatton and Williamson (1998), and Massey (1999). For a history of the two-way border crossings between the United States and Canada in the first half of the 19th century, see Hansen, 1940, Chapters 4-6.

declined over time. Laborers began replacing the farmers in the 1840s and early 1850s; these unskilled workers would have had an easier time finding work in the US during that period, when the economy was strong relative to their European origins (Cohn, 2017).

In fact, the average skill level of immigrants decreased over the period from 1820-1850, with less than 40 percent among the least skilled groups during the 1820s, a proportion which increased to 76 percent by the 1847-1854 period (Cohn, 2017). However, many of these immigrants experienced upward mobility in the US job market. During the antebellum period of high migration, the majority of immigrants from Britain and Germany generally improved their occupational status over time (Ferrie, 1999). Ferrie found that over three-quarters of British and German immigrants reporting low-skilled jobs on the arriving passengers lists later moved into higher skilled occupations over time. In contrast, immigrants from Ireland were less likely to increase in job skill level (only 40 percent), and more likely to move into low skilled jobs (over 50 percent) (Ferrie, 1999; Cohn, 2017).

Ferrie's (1997) analysis also provides insight into the temporal pattern of immigrant occupational mobility. He found that while most immigrants took an unskilled job immediately upon arrival, their occupational mobility (movement into more skilled occupations) in subsequent years varied by nativity. The majority of British and Germans who reported white collar, skilled, or semi-skilled jobs in the passenger arrival lists "had returned to these jobs or entered farming within a year of entering the United States" (Ferrie, 1997, p. 311). The same pattern holds for the Irish immigrants, but at a lower level, with only 40 percent moving up from unskilled work.

Nativity differences arise, however, in the impact of an additional year in the US based on the immigrants' reported skill level upon arrival: Germans and Irish had a higher probability

of moving from unskilled work if they reported unskilled or farm labor occupations upon arrival (as opposed to white collar, skilled, or semi-skilled), while the opposite was true for the British (Ferrie, 1997, p. 312). Reasons for these differences among the European immigrants include the differential skill levels of arrival cohorts. Causes of immigration should be considered. Ferrie (1997) found no difference in skill levels of British immigrants throughout the 1840s, but there were differences among the Germans and Irish. After the German Revolutions in 1848, the German immigrants to the US were of a "higher quality", i.e., more skilled, than those arriving earlier in the nineteenth century. In contrast, Irish immigrants in the late 1840s were fleeing the famine (1846-1850), and were potentially of a "lower quality" than previous Irish immigrants. In addition, anti-immigrant sentiment increased in the US in the late 1840s and was particularly directed at Irish immigrants.

Overall, the gender and age breakdown of immigrant arrivals was fairly consistent through the nineteenth century, based on data from the passenger lists. About 60 percent of immigrants were male (Cohn, 2017; US Department of Commerce, 1976). Generally, about one-fifth were children, 70 percent were adults up to age 44, and the remaining one-in-ten were older adults (Cohn, 2017; US Department of Commerce, 1976). The data gleaned from the passenger lists provides much insight into the characteristics of immigrants from 1820 forward, and is a useful complement to the data from the 1850 Census when analyzing the occupational attainment of immigrants on a nationwide scale in the antebellum period.

According to the 1850 Census, the White male population of the US age 20 and over with a gainful occupation numbered nearly 5 million, of whom just under 1 million were foreign born (Table 1). Of the foreign born, 88 percent were coded by the MPC as having been born in 3 countries: Ireland (42.5 percent of the immigrants), Germany (27.4 percent), and Great Britain

(18.1 percent).[7] Other parts of Europe contributed 5.9 percent of the foreign born, Canada 4.9 percent, and Mexico 0.8 percent, with about one-half of one percent of the adult White men having been born elsewhere in the world (Table 1).

Table 2 reports the White male frequency distribution of occupation, for the ten major categories, by nativity, first for the native born and then the foreign born by country of birth. Most striking is the difference in the proportion who are farmers (owners, tenants, and managers): 52 percent among the native born compared to only 19 percent among the foreign born. Even among the foreign born there are important differences in the proportion who are farmers by specific country of birth, very low for the Mexicans (8 percent) and Irish (13 percent) and higher for all other origins (ranging from 23 to 25 percent), but still less than half of the proportion among the native born. Another large disparity is among non-farm laborers, one of the low-skilled occupations in which newly arrived immigrants often engaged, with only 9 percent of the native born in this occupational category, compared to 29 percent of the foreign born. Over four in ten of the Irish-born men (44 percent) were non-farm laborers, in contrast to only 12 percent for the British, 19 percent for the Germans, and 27 percent for the Canadians. The immigrants (Table 2) were more likely to be operatives (which includes all apprentices), 17 percent compared to the 9 percent for the native born. Operatives were most prevalent among the British (23 percent) and especially the Mexicans (54 percent). The immigrants were also somewhat more likely to be craft workers (20 percent compared to 16 percent for the native

[7] Great Britain includes England, Channel Islands, Guernsey, Jersey, Isle of Man, Scotland, Wales, and UK-not specified. Ireland consists of what is now the Republic of Ireland and Northern Ireland.

born), with craftwork most common among the British and German men, and less so among the Irish and Mexicans.

Thus, among White men age 20 and over who reported an occupation the native born were more likely to be farmers, while the foreign born were more likely to be in urban occupations, such as non-farm laborers, craft, and operative workers, with the Irish appearing to be the least skilled among the major immigrant groups.

Professionals, such as doctors, lawyers, teachers, etc., were relatively few in number in 1850, with a higher frequency for the native born (3.5 percent) than the immigrants (2.0 percent) (Table 2). Among the immigrants, professionals were most common among the British (3 percent) and least frequent among the Irish and Mexicans (about one percent for each). However, the type of professional occupation varied by immigrant nativity: Germans were far more likely to be musicians and music teachers (20.8 percent of German professionals) and physicians (24.0 percent of German professionals), while those from Ireland were more likely to be clergymen (19.5 percent of Irish professionals, of whom over a third were listed as Catholic) and school teachers (23.7 percent), and British professionals were most commonly clergymen (22.5 percent of professionals from Britain, who were primarily listed as Baptist, Methodist, and Episcopalian with very few Catholics) and physicians (19.5 percent). Medicine has a higher level of skill transferability across countries (as opposed to many other professions, such as law). More state occupational licensing laws were enacted earlier in the 19th century in the legal profession than in medicine (National Council of State Governments, 1952).

The Table 2 data report a disparity among the occupations of the native born and the foreign born. By themselves the data do not indicate whether the native born or the foreign born

are of a higher occupational status, nor do they shed light on the determinants of occupational status. These issues are addressed in the econometric analysis.

III. The 1850 Census of Population

The 1850 Census of Population has been referred to as the first modern census. The Census had been taken in every decade since 1790, as mandated by the US Constitution, but up through 1840, the unit of observation was the household. Since 1850, the unit of observation has been the individual. The 1850 Census Schedule 1 was the first to inquire into the personal characteristics of free people (US Bureau of the Census, 1989, p. 22). There were thirteen questions on Schedule 1, which included recording for each individual their location (and thereby identifying county and rural/urban location), name, age, sex, "color," literacy, place of birth, and, for males, occupation. It is, therefore, the earliest nationwide data that can be used to study the labor market adjustment of immigrants in the United States.

The instructions for the marshals conducting the enumeration were to "ask the place of birth of each individual in the family" and, for those not born in a US state or territory, to list "the name of the government or country" in which they were born (US Office of the Census, 1850).[8] This has been re-coded by the Minnesota Population Center into modern country

[8] The nativity of some Mexican immigrants in 1850 may be misreported because these were primarily individuals living in California and Texas, which were part of Mexico at the time of their birth. Texas gained independence from Mexico in 1836, and was annexed as the 28th state in 1845. California was ceded to the US in 1848 as a result of the Mexican-American War, and became the 31st state on September 9, 1850. While the instructions to enumerators indicate that those born in areas that were part of Mexico at their birth were supposed to report what had subsequently become the US state as their birthplace, it is not clear how many failed to do so. See Nostrand (1975) for further discussion of the Mexican American population in the mid-19th century, including factors that contributed to inaccurately low estimates of its size.

listings. Unfortunately, the 1850 Census did not ask the foreign born when they came to the United States, or their duration in this country. This issue will be addressed below.

The 1850 Census was the first to record individuals' occupations, but only for males over 15 years of age. Schedule 1 asked for the "profession, occupation, or trade of each person over 15 years of age," though the instructions to enumerators further clarified that the marshal should record for "each male the specific profession, occupation, or trade which the said person is known and reputed to follow in the place where he resides - as clergyman, physician, lawyer, shoemaker, student, farmer, carpenter, laborer, tailor, boatman, sailor, or otherwise, as the fact may be" (US Office of the Census, 1850).[9] For a clergyman, the initials of the denomination were to be identified. And, "[w]hen a person follows several professions or occupations, the name of the principal one only is to be given" (US Office of the Census, 1850). Finally, if "a person follows no particular occupation, the space is to be filled with the word "none"" (US Office of the Census, 1850).

The IPUMS data file used for this study provides not only the original string data for occupation, that is, the transcription of each individual's occupation as it was recorded by the census enumerator, but also a separate variable in which the occupations were coded into a consistent classification scheme by the MPC. This allows for a more nuanced analysis of the occupations of men in 1850, as it enables analysis that is consistent across the US as a whole, regardless of variations in spelling or word choice (e.g., "farmer" versus "planter") between

[9] Occupation was not asked for free women until the 1860 Census, where only 16 percent of free women were reported as having a gainful occupation (Chiswick and Robinson, 2021).

enumerators, as well as more detailed analysis when necessary (such as the breakdown by religious order of clergymen).

The respondents were also asked their age, their sex, and if they were "married during the year previous to the 1st of June, whether male or female." Marital status was not recorded beyond this, and the low frequency of affirmative responses indicates that recent marriages were relatively few. However, there were specific instructions for the enumerators to follow as to the order in which individuals within each household were listed. Therefore, using that information along with names, ages, and sex of each respondent, the MPC is able to create a number of imputed variables for family interrelationships, which allow us to infer the marital status of each individual.[10] Specifically, this is used to infer whether the person was "married, spouse present in the household" or a different marital status, though it is not possible to distinguish among those never married, widowed, divorced, or married with an absent spouse.

The marshals were also instructed to indicate each person "over 20 years of age who cannot read and write... If the person can read and write a foreign language, he is to be considered as able to read and write" (US Office of the Census, 1850). Persons who could read but not write were considered illiterate. There is, however, no information on what constitutes the ability to "read and write." It is not clear if merely being able to read and write one's own name would constitute literacy.

[10] The census instructions to marshals specified that within each household, "the names are to be written beginning with the father and mother; or, if either, or both, be dead, begin with some other ostensible head of the family; to be followed, as far as practicable, with the name of the oldest child residing at home, then the next oldest, and so on to the youngest, then the other inmates (sic), lodgers and boarders, laborers, domestics, and servants" (IPUMS-USA, n.d., a).

The 1850 Census, Schedule 1, on Free People instructed the marshals to record each respondent's "color," based on the enumerators' observations. Specifically, "in all cases where the person is white, leave the space blank; in all cases where the person is black, insert the letter B; if mulatto, insert M. It is very desirable that these particulars be carefully regarded" (US Office of the Census, 1850). Among the native-born free males age 20 and over with a recorded occupation in the 1850 Census, 97.96 percent were implicitly coded as White, 1.44 percent as Black, and 0.59 percent as "Mulatto." Among the foreign born, the proportions were 99.79 percent White, 0.12 percent Black, and 0.08 percent "Mulatto." To avoid confounding the analysis with the small proportion of non-White immigrants, the analysis in this study will be limited to White men.[11]

The 1850 Census did not ask foreign-born individuals any questions regarding when they arrived in the United States. One cannot directly incorporate the immigrants' years since migration (YSM) into the model. However, YSM is an important component of the analysis of occupational attainment for immigrants, as it provides a proxy variable for characteristics acquired after migration that would be valuable in the destination labor market, such as language proficiency, cultural adaptation, formation of local networks, etc.[12] However, for this analysis,

[11] The instructions for the question on "color" made no allowance for men who might have been coded as of Asian or Native American (Indian) origin. However, enumerators occasionally entered responses outside the prescribed options. In the 1850 full count microdata file, there were 374 males, age 20 and over with a gainful occupation, who were recorded as being of other races, the majority of whom were classified as "American Indian," which equates to less than one-hundredth of one percent of the sample.

[12] Years Since Migration (YSM) generally has a positive relationship, but at a decreasing rate, to immigrant earnings and occupational attainment. See, for example, Chiswick (1978a, 1978b) for a discussion of the relationship between immigrants' duration in the destination, the international transferability of skills, and labor market outcomes.

we can utilize other existing data to create for the first time an estimated years since arrival variable. This constitutes a methodological contribution of this paper.

There are immigrant flow data covering the years 1820-1850 for the distribution of foreign-born passengers' arrival to the United States by nationality (Willcox, 1929, Table I). These data are used to create a frequency distribution of arrivals for the major countries of origin during this time period – Great Britain, Ireland, and Germany – as well as a category for immigrants from all other countries of origin (See Appendix Table A-4). Furthermore, immigration statistics from 1820-1850 include a distribution of the total number of passengers arriving to the United States by year categorized into three age brackets: under 15 years old, 15 to 40 years, and over 40 years (see Appendix Table A-5). There are, therefore, two distinct probability distributions that can be utilized to estimate YSM: the probability of a foreign-born individual arriving to the US in a given year based on their nativity and the probability of an individual arriving to the US in a given year based on their age group. Combining these, and knowing the respondent's age and country of birth from the 1850 Census data, it is possible to calculate an expected value for the individual's duration in the US (see Appendix A).

Among the country groups considered here, the estimated YSM would be subject to the least measurement error for immigrants from Britain, Germany, and Ireland, due to the magnitude of immigration and method of arrival into the US. This technique would result in substantial and not necessarily random measurement error for immigrants from Canada and Mexico because of the non-systematic underreporting of land crossings during this period. For this reason, a country-specific YSM value is calculated for individuals from Britain, Germany, and Ireland, while the estimated YSM for all other immigrants uses the combined immigrant flow data for all other countries. The values of estimated YSM for all other countries (other than

the big three) are used for Mexico and Canada when the analysis is for all countries, but are not included when the regressions are computed for just these two countries.

The MPC added to the 1850 data file two quantitative continuous measures of occupational status, which are described in more detail in Appendix A. One is the Occupational Income Score (OccInc) and the other is the Duncan Socioeconomic Index (SEI) (Duncan, 1961; Hauser and Warren, 1997; Warren, Sheridan, and Hauser, 1998; IPUMS-USA, n.d., c). The OccInc is based on the median income of individuals in the occupation derived from the 1950 Census data. The SEI is based on predicted occupational prestige scores from a regression of survey-based prestige ratings of the occupation on the male median income and educational level of the occupation from the 1950 Census data. While the two measures are closely related (see Table A-2 for their correlations), the SEI gives greater weight to the role of level of educational attainment in assessment of the occupational status. Because of the positive skewness of both measures of occupational status, the natural logarithms of these measures are used in the econometric analysis.

See Appendix A for more detail on the variables used in the statistical analysis.

IV. The Model and Hypotheses

The model and hypotheses reported here are based on the literature regarding the labor market attainment of adult men, whether native born or foreign born.

In the econometric analysis, the *natural logarithm of the two quantitative occupational status scores* for White males age 20 and over with a reported gainful occupation is regressed on a set of human capital and demographic variables, as well as immigration variables for the foreign born.

In mathematical terms:

$$(1) \qquad \ln Occ = b_0 + \sum_{i=1}^{n} b_i X_i + c_i \sum_{i=n}^{m} FB_i$$

where *Occ* is our occupational attainment dependent variable, X_i is a set of human capital and demographic variables common to the immigrants and the native born, and FB_i are dichotomous variables for foreign country of birth in the pooled native- and foreign-born equations and the estimated country-specific Years Since Migration variable.

There is no information on years of schooling or educational attainment in the 1850 Census, but the data on literacy are utilized, where it is hypothesized that the *literate* men have a higher occupational score than their illiterate counterparts.

There are no explicit data on years of labor market experience, but it will be assumed that labor market experience, if any, prior to age 15 has little or no relevance for adult male occupational attainment. It is also assumed that investment in on-the-job training or labor market experience is greatest in the early years in the adult labor market and declines with duration in the labor force. A quadratic experience variable will be used, that is, *EXP=Age-15* and $EXPSQ=(Age-15)^2$.

It is also hypothesized that men who are married and living with their spouse (*married*) will have a higher occupational status, than men who were never married, are divorced/separated, or are widowers. This hypothesis arises, in part, from married men, spouse present, experiencing a greater division of labor between household and labor market activities, and a greater incentive to have higher income (higher occupational status) if one is responsible

for supporting a wife.[13] Moreover, high occupational status men would be more attractive in the marriage (and remarriage) market, whether they are among the young, not-yet-married men or among the formerly married (divorced or widowed) men, and hence more likely to become married.

The association between father's occupational status and the number of children in the family (*children*) may be ambiguous. Higher occupational status families may have more children through an income effect. On the other hand, there is a substitution (or price) effect, namely, the children of lower income families are more likely to begin working at a younger age, contributing to household finances and thereby lowering the cost of extra children, and inducing the parents to have more children.[14]

Other relevant demographic variables refer to place of residence. It is hypothesized that because of the low occupational status score of farmers (owners, managers, tenants, and laborers), occupational scores will be higher for men living in *urban* areas.

It is also hypothesized that among White men, whether native-born or foreign-born, other variables the same, occupational status scores will be higher in the *South* as enslaved labor would be engaged in the lowest-skilled jobs in the Southern slave-holding states.

[13] In the mid-19th century, it was not common for married women to work outside the home. Their work was generally unreported but in support of their husband's or father's farm or other business (Chiswick and Robinson, 2021).

[14] Becker and Lewis (1973) develop this analysis of the income and substitution effects of family incomes on fertility. Chiswick and Robinson (2023) find a negative association of children and father's occupational status in 1850 Census data, suggesting that the substitution effect was stronger than the income effect of children at this time.

There are two sets of immigration variables in the analysis. One is country of birth, with the foreign-born (*FB*) dichotomous variable. It is hypothesized that the foreign-born variable is associated with a lower occupational attainment among men, especially among men who are not farmers. This would be a consequence of the less than perfect transferability of skills of the immigrants – including language skills, knowledge of labor markets and local information networks, and knowledge of technology that may be specific to the US economy – and the recency of their arrival. These deficiencies are likely to be the greatest for the immigrants from Germany and least severe for those from Great Britain, with the Irish in-between.

The other immigration-specific variable is the estimated duration in the US, *estimated YSM*. It is hypothesized that immigrants would make large investments in skills relevant for the US labor market shortly after arrival, and that these new investments would decline with duration as the most profitable investments would have already been made as well as the increase in the value of their time. That is, an immigrant population that has been in the US longer would have experienced a greater adjustment to the US economic environment and have greater English proficiency and, hence, a higher occupational status than more recently arrived immigrants. The impact on occupational attainment of immigrant assimilation into the United States would be strongest in the early years after an individual arrives, therefore, this variable is entered as a quadratic, *YSM* and YSM^2, where the hypothesized signs are plus and minus, respectively.

The population under study and the variables used in the econometric analysis are explained in greater detail in Appendix A.

V. The Empirical Estimation

The econometric analysis uses the full count (100 percent) microdata on native-born and foreign-born White men, age 20 and over, with a reported gainful occupation from the 1850 Census of Population, Schedule 1 (Minnesota Population Center, 2020).

The means and standard deviations of the variables used in the analysis are reported in Table 3. The mean occupational income score (OccInc) in Table 3 is 20.2 for the native born (the equivalent of shoemakers and landlords), while it is higher (22.1) among the foreign born (the equivalent of bookkeepers and hackney or coach drivers). On the other hand, the mean Socioeconomic Index (SEI) is higher for the native born (20.7 – for example, farm foremen and constables) than the foreign born (19.1 – for example, carpenters). The fundamental difference in the construction of the two measures is the weight given to the median level of schooling of men in the occupation in the 1950 Census (see Statistical Appendix) for the SEI, which plays no direct role in the OccInc. The implication is that the immigrants in 1850 were more concentrated than the native born in lower skilled occupations, that is, occupations which required a lower level of schooling a century later.

The foreign-born White men in 1850 were on average two years younger than the native born (age 35 compared to age 37), less likely to be living with a wife (54 percent married compared to 65 percent), much more likely to live in an urban area (42 percent compared to 11 percent), but less likely to live in the South (16 percent compared to 33 percent) (Table 3). The immigrant men on average also had fewer of their own children living at home, on average. Indeed, immigrants from each of the major origins in Table 3 were more likely than the native born to be younger, unmarried, urban Northerners. The Mexican-born men, on the other hand,

were far less urban (only 5 percent) and tended to live in the Southwestern part of the US (California and Texas).[15]

On average, the immigrant men were slightly less likely to be literate (91 percent compared to 93 percent for the native born), but we do not know their level of literacy or proficiency in English. Literacy was greatest among the British, German, and Other Countries (primarily European) immigrants (95 to 98 percent), lower among the Irish (86 percent) and Canadian (primarily from Quebec, 79 percent) immigrants, and lowest among the Mexican-born (only 49 percent).[16] While both the British and German immigrants have very high rates of literacy (97 and 98 percent, respectively), the literacy in English is likely to be lower for the Germans than among the British.

Also, on average, the expected duration in the US for the foreign born is just under 8 years (7.8 years). Of the three countries that supplied the overwhelming majority of immigrants, the British had the longest expected tenure in the US (8.5 years), followed by the Germans (7.2 years) and the Irish (7.1 years). The expected duration for Mexicans, Canadians, and all other immigrants is longer on average, though recall that these data on arrivals are subject to more measurement error.

Tables 4 and 5 report the reduced form regression analysis of the occupational income score (OccInc) and the socioeconomic index (SEI), respectively, for the native born (Column (1)), the foreign born (Columns (2)-(4)), and the pooled sample (Columns (5)-(8)) of White

[15] Among the White adult male Mexican immigrants, 63.9 percent lived in California and 26.0 percent in Texas, compared with 1.9 percent and 0.8 percent in California and Texas, respectively, among all White adult male immigrants.

[16] While there is no information on the respondent's religion, the country-of-origin data suggest that it may reflect greater literacy among Protestant than among Catholic immigrants.

males age 20 and over with a reported occupation. Nearly all of the explanatory variables are highly statistically significant. Further, the partial effects are all largely unchanged even when including additional immigration-specific controls (country of birth and expected YSM) for the foreign born, implying robust findings.

An older age, that is, greater labor market experience, raises both occupational scores, at a decreasing rate, but by much less for the immigrants. This is consistent with at least some of the immigrants' labor market experience acquired abroad not being fully transferable to the American labor market.

Literacy, which is a proxy measure for educational attainment, has a positive effect on occupational status for both nativity groups, but depending on the outcome measure the relative effects for immigrants and natives differ. Literacy has a larger positive effect for the native born when the measure is the occupational income score, which is based solely on the relation between occupation and income. On the other hand, using the socioeconomic index, which incorporates the relation between occupational attainment and both income and level of schooling, literacy (in any language) has a larger positive impact among the foreign born. This suggests that while overall immigrants were more concentrated than the native born in lower skilled occupations, controlling for other variables, the immigrants are more concentrated in occupations that in 1950 involve more formal education, consistent with the above results for OccInc and SEI averages.

Married men (living with their wives) have a higher occupational status than men in other marital situations, and the gap is larger for the occupational income score than for the socioeconomic index. Further, the positive relationship between being married and the occupational income score is greater (two-fold) for immigrant than native-born men. This may

arise from immigrant men who have a low occupational income score being less attractive in the marriage market for native-born women, and the relative scarcity of immigrant women as marriage partners because adult immigrants were disproportionately male in this time period.

Urban residence has a smaller positive effect on occupational status for the immigrants under both measures. While living in the South is consistently associated with a higher occupational score for the immigrants, presumably because the least skilled immigrants avoid the South due to competition with enslaved workers, there is a mixed picture among the native born. Among the native born, who as adults live primarily in the region in which they were born, the occupational income score is lower in the South, but the socioeconomic index is higher. This presumably reflects the higher level of the educational attainment in the South relative to the lower income occupations, particularly farming, that predominate among native-born men in the South.

In the pooled native-foreign regressions, other variables the same, the immigrants overall have a significantly lower occupational status (Tables 4 and 5, Column (5)), but this varies in magnitude across countries of origin and occupational status measure (Column (6)). All of the immigrant countries of origin display a lower socioeconomic index (SEI – Table 5) than the native born, other variables the same, with the gap largest for the Irish and smallest for the British and for the heterogeneous "All Other Countries" category. On the other hand, a mixed country of origin picture emerges when the occupational income measure is used as the dependent variable (Table 4, Column (6)): the coefficient in the OccInc equation is most negative for the Irish, smaller negative for the Germans, but significantly positive for the British, Canadians, Mexicans, and other countries of origin. This difference in outcomes reflects the pattern for Irish immigrants, and to a lesser extent German immigrants, to be in occupations that

are associated with a lower level of formal schooling, and for the British and Canadian immigrants to be more highly concentrated in occupations associated with a higher level of formal education, yet in occupations with lower incomes (e.g., teachers).

The relationship between an immigrant's estimated duration in the US and their occupational attainment is shown through the partial effects of *Estimated YSM* and *Estimated YSM*^{2} in Tables 4 and 5, Columns (4) for immigrants only and (7) and (8) for the pooled native – foreign-born sample. *Estimated YSM* is positive and statistically significant, while its square is negative and statistically significant. This indicates that immigrants experience an increase in occupational attainment the longer they live in the US, an effect which is greatest shortly after arrival and diminishes with the passage of time.

The inclusion of estimated YSM and its square results in little change in the other regression results in the pooled sample (Tables 4 and 5, Columns (5) versus (8) and Columns (6) versus (7)), except for country of origin.[17] The significant positive coefficients in Column (6) of these tables for immigrants from Britain, Canada, and Other Countries now become negative, and remain negative for Germany and Ireland. That is, the immigrant groups show a lower occupational level (OccInc and SEI) than the native born when their duration in the US is evaluated at zero, with the only exception the occupational income score (significant positive) for Mexican immigrants. This is consistent with newly-arrived immigrants entering the lowest-skilled and lowest-earning occupations immediately upon arrival.

[17] Although the estimated YSM is constructed using immigrant flows by grouped age data, the computed regression equations do not show evidence of multicollinearity (e.g., the standard errors do not become very large).

For OccInc (Table 4), the partial effect of the initial year in the US increases immigrants' expected occupational score by about half the effect of being literate, holding all else constant (Column 4). From Column (8), the pooled native-foreign born equation, the impact of each additional year in the US among the immigrants is slightly smaller, though still positive and highly significant. This is due to the interaction between being foreign born and some of the other explanatory variables. For example, the partial effect of literacy on occupational status is much smaller in magnitude among the foreign born than the native born, among whom literacy is more likely to be in English, while the partial effect of being married, spouse present, is larger in magnitude among the foreign born than among the native born. Overall, we would expect a foreign-born male to reach occupational income score parity with his native-born counterpart approximately 8.4 years after arrival, all else constant.

The results of duration in the US on occupational attainment are largely similar for SEI (Table 5). The partial effect of the initial year in the US increases immigrants' expected SEI score among the foreign born by roughly the equivalent of living in the South (Column (4)). Among the pooled sample (Column (8)), the partial effect of *Estimated YSM* is smaller than among the foreign-born only sample, again due to interactions with other variables. Foreign-born men as a group would not be expected to reach SEI parity with their native-born counterparts, although the gap between the two is smallest about 15 years after the immigrants' arrival.

For both dependent variables, the large increase in occupational advancement in the first few years in the US sharply narrows the occupational gap with the native born, but the impact of additional US experience becomes very small. These results are consistent with Ferrie's (1997, 1999) findings among selected counties in the US that, while most immigrants entered low-

skilled occupations immediately upon arrival, the majority of British and German immigrants quickly moved into higher-skilled occupations, while only some of the Irish immigrants did. This, combined with the partial effects for nativity on socio-economic status (Columns (3), (6), and (7) of Tables 4 and 5), suggests that the "higher quality" of German immigrants outweigh the deficiencies of their expected lower transferability of skills compared to the Irish. That is, of the three main immigrant countries of origin, the lack of skill transferability and local networks appears to have negatively impacted the British the least, followed by the Germans, and finally with the Irish experiencing the strongest negative effect on occupational attainment of the three groups. This could also be related to labor market discrimination that the Irish faced more so than immigrants from other countries of origin.

Tables 6 and 7 repeat the regression equations separately for the six countries of origin groups.[18] The basic explanatory variables have the hypothesized effects for the occupation income score (OccInc) in Table 6: occupational status increases at a decreasing rate with total labor market experience, and increases with literacy, being married, having fewer children at home, living in urban areas and in the South. The score increases (at a decreasing rate) with the estimated duration in the US for immigrants from Britain, Germany, and Ireland.

The pattern is much more mixed in the analysis on the socioeconomic index (SEI) for individual countries of origin (Table 7). The SEI is higher among immigrants for the literate, married, urban and Southern men, except for being lower for the Southern (mainly Texas) Mexican men. Unlike the OccInc, the SEI increases with number of children, suggesting the

[18] Because the estimated duration variable is measured so poorly due to incomplete records of land crossings and inconsistent immigration flows for Canada, Mexico, and All Other Countries, it is not included in these regressions.

income effect outweighs the substitution effect in this case. The estimated partial effects of labor market experience (EXP) and its square are as hypothesized for Britain and Germany, but are both statistically insignificant for Ireland.

In many ways, the analysis for the Mexican immigrants is the anomaly. They are overwhelmingly rural (95 percent), highly Southern (29 percent, mainly in Texas), are the least married living in the same household as their wife (21 percent), and have the smallest number of children living with them (mean of 0.5 children) (Table 3). They have a very high proportion employed as operatives (53.6 percent, compared to 16.9 percent for other immigrants) (Table 2). Their employment as operatives is disproportionately in the mining sector (84 percent of Mexican operatives). Compared to immigrants from other countries, they have a relatively high occupational income score (22.5 compared to 22.1 for all immigrants) and a very low socioeconomic index (14.7 compared to 19.1 for all immigrants) (Table 3). [19]

Although direct information is not available in the 1850 Census, these characteristics of the Mexican immigrants suggest that they may have been temporary workers or sojourners hoping to make their fortunes in the California gold rush, many of whom left their family members back in Mexico while they worked as operatives in a difficult job in the US (higher occupational income scores) that required little formal schooling or labor market experience (flat experience-earnings profile and low socioeconomic index). Historical context suggests that this was, in fact, the case. Thousands of Mexican mining workers, known as "Sonorans" from the provinces in Northern Mexico, were temporary residents in California in 1850 during the gold

[19] Note that from Table A-3 "mine operatives and laborers" have an OccInc score (24) comparable to that of clergymen, but a very low SEI (10), comparable to that of laborers not elsewhere classified. This may reflect miners relatively high income given their low level of educational attainment.

rush (Nostrand, 1975; Morefield, 1956). These Sonorans were, "for the most part, young males who had come to mine gold…most of them returned [to the Mexican state from whence they came] after the first mining season [in 1848], but repeated the migration in annual pulsations over the next half dozen years" (Nostrand, 1976, p. 384).

VI. Longitudinal Analysis

Thus far, the analysis has focused on a single cross-sectional data file, the 1850 Census of Population. To what extent, however, is the finding of a positive quadratic effect of estimated duration in the US (YSM) due to more recent immigrants having lower innate ability, rather than initially less human capital investment relevant for the destination labor market? If there is no difference over time in US-specific investment in human capital by immigrants compared to natives, but more recent immigrant cohorts were innately lower quality workers, in a single cross-section one could observe that those in the destination longer would have greater labor market attainment. To obtain the positive quadratic effect of duration, one would need to assume that the decline in immigrant quality was more rapid or more intense in later years.[20]

[20] Several studies that have addressed the hypothesis of a decline in immigrant quality during the period of mass immigration and during the second half of the 20th century have rejected the hypothesis. See, for example, Abramitzky, et al. (2014, 2020), Douglas (1919), Chiswick (1986), and Duleep, et al. (2022).

Ideally, to resolve this issue, it would be best to have nationwide longitudinal data on both the foreign born and the native born.[21] While no such nationwide longitudinal data exist for the antebellum period, this can, in principle, be proxied by using the linked 1850 Census-1860 Census file on individuals constructed by the Minnesota Population Center (MPC). Using microdata from the full count census on a set of individual, household, and contextual characteristics, the MPC linked individuals from the 1850 Census to themselves as reported in the 1860 Census.[22]

This linkage is subject to two types of error. One is not being able to match a person in the 1850 Census to the 1860 Census. This failure may arise from several factors: death, name changes (including spelling changes or errors beyond those that would be captured by the Jaro-Winkler algorithm for first and last name similarity used by the MPC), other mismatches between the critical characteristics used for matching individuals, either through errors in recording of the data by census enumerators or changes in reporting of their personal information by the individuals, and the return migration to the country of origin (or a third country) among

[21] Ferrie (1999) traces a sample of White male immigrants in selected counties identified in shipboard records in the 1840s to the 1850 and 1860 Censuses. He finds that from the 1850 Census to the 1860 Census, the immigrants experienced a steeper improvement in their occupational status than did the native-born White men.

Chiswick (1978b) uses information in the 1970 Census microdata on occupational status in 1965 and 1970 to study longitudinal changes in occupation as a function of duration of residence in 1970. He finds that among white male immigrants the increase in occupational status over this five-year period is smaller the longer a cohort has been in the US. This is consistent with a quadratic effect of duration on occupational status found in single cross-sectional analysis.

[22] For additional information on the Multigenerational Longitudinal Panel (MLP) project by MPC and the linking method used, see IPUMS (n.d.) d. For the linked data, see Minnesota Population Center (2021, 2023).

the foreign born.[23] The second error, which may be less likely, is an incorrect match: the "John Smith" identified as a match may be two different men.

There were 4.8 million White males, age 20 and over, with a reported occupation in the 1850 Census. Of those, slightly over 3.8 million were native born, and the MPC matching to native-born White males, age 30 and over, with a reported occupation in 1860 was completed for almost 1.1 million, a match rate of only 27.7 percent. Among the nearly 1 million foreign-born White males, age 20 and over, with a reported occupation in 1850, just over 100 thousand were matched in 1860, a match rate of only 10.8 percent. These are very low match rates. The lower match rate for immigrants may be due to return migration, more name changes, greater internal mobility, or some combination of these and other factors. The missing matches may not be random with respect to occupational mobility over the decade, or between the foreign born and the native born.

Table 8 reports the mean values of the two occupational attainment scores for the matched (linked) 1850-1860 sample for the native born and the foreign born. For reasons that are unclear, the OccInc score declined for both groups, but the decline is smaller for the foreign born. The SEI increased for both nativity groups, with the increase greater for the immigrants. Under both measures, the immigrants in the linked sample improved their relative occupational attainment compared to the native-born men over the decade.

Using the occupation data available in the linked sample, less than one-third (29.8 percent) of native-born adult men changed occupations over the decade and just over one-third

[23] A study of the changes in surnames among Jewish immigrants in the late 19th and 20th centuries found that most did not occur at immigration, but after some time in the US (see Fermaglich, 2018). This may have also been the experience of other immigrant groups in the mid-19th century.

(35.8 percent) of foreign-born adult men did. Among the native born, there was a shift in aggregate terms from being craft workers and non-farm laborers into farm laborers, managers, and to a lesser extent farmer owners. Among the foreign born, there was aggregate movement away from non-farm laborers, craft, and operative positions into managers and proprietors as well as farm owners. However, this does not account for moving up within the same broad occupational category.[24]

As an additional test, the changes in the two measures of occupational attainment from 1850 to 1860 were regressed on the estimated YSM, as well as the changes in the other explanatory variables.[25] When this is done in the native – foreign regression, the regression for all of the foreign born pooled, and separately for the three primary source countries, the coefficient on the estimated YSM variable is consistently negative and statistically significant, except for the negative insignificant coefficient for Britain in the OccInc analysis. That is, the longer an immigrant cohort has been in the US, the smaller is the marginal effect of additional time on their occupational attainment. The negative but statistically insignificant coefficient for Britain is consistent with the much higher degree of skill transferability (including English language skills) for British than for other immigrant groups. These findings are consistent with

[24] One drawback of the 1850-1860 linked file is that the occupational string data are not available for this sample. The occupation data are all coded by MPC into the occupation, 1950 basis, categories, which loses some of the nuance available in the string data. For example, in 1860, the census enumerators were instructed to differentiate between self-employed business owners (e.g., master carpenter) and those employed by others (e.g., carpenter). In the occupation, 1950 basis, both individuals would be categorized as "carpenters," without the detail of their rank within the occupation.

[25] The regressions are reported in Appendix B.

the quadratic effect of duration on the occupational status of immigrants found in the single cross-sectional data.

VII. Summary and Conclusions

This paper uses the full count (100 percent sample) 1850 Census of Population PUMS data for adult White men to study the determinants of the occupational status in the mid-19th century of foreign-born men among themselves and compared to the native born. The 1850 Census is the first US census to record the occupations, as well as other characteristics, for individuals. Occupational attainment is measured using two indices: the Occupational Income Score (OccInc) and the Duncan Socioeconomic Index (SEI). Hypotheses are developed based on the human capital, demographic, and immigrant characteristics of the respondents.

In general, it is found that, among the immigrants and the native born, occupational status increases (at a decreasing rate) with labor market experience, and is higher for the literate, married, urban, and (among immigrants) Southern men. Immigrant occupational status also increases (at a decreasing rate) with their estimated duration in the United States.

Differences that emerge between the two measures of occupational status and among the immigrants by country of origin are highlighted.

Although immigrants initially have a lower occupational status than the native born, other variables the same, by around 8.4 years in the US immigrants' occupational income score equals and then exceeds that of the native born. However, the SEI of immigrants as a group does not equal that of their native-born counterparts, though the gap is smallest approximately 15 years after the immigrant's arrival. This suggests that while overall immigrants initially were more concentrated than the native born in lower skilled occupations, controlling for other variables,

the immigrants reached occupational "parity" based on occupational income in the first decade after their arrival in spite of their tendency to be in occupations that involved a lower level of formal schooling.

Immigrants from Mexico display characteristics that differentiate them from European arrivals. They are more likely than other immigrants to be rural residents in California and Texas, working as operatives in the mining sector with demographic characteristics suggesting a higher degree of temporary or sojourner worker migration, consistent with the "Sonoran" phenomenon of annual migration for gold mining. This is consistent with 20th century sojourner Mexican migration patterns.

Overall, it appears that the hypotheses developed regarding the human capital, demographic, and immigrant determinants of immigrant adjustment are consistent with the antebellum immigrant labor market experience in the United States. Moreover, other measured explanatory variables the same, the White male immigrants reached occupational-income parity with their native-born counterparts within a decade of living in the United States, after which they had a higher level on average. These findings are consistent with findings for analyses of contemporary immigrants in the United States (Chiswick, 1978a, 1978b, 1986; Duleep, et al. 2022).

Tables

Table 1

Country of Birth of White Males, Age 20 and Over, 1850 Census of Population, percents [a]

Country of Birth	All	Foreign Born
United States	80.18	--
Germany	5.42	27.36
Ireland [b]	8.43	42.52
Great Britain [c]	3.58	18.06
Other Europe	1.18	5.93
Canada	0.97	4.91
Mexico	0.15	0.76
Other Americas	0.06	0.29
Africa	0.00	0.02
Asia	0.02	0.08
Other [d]	0.01	0.07
Total [e]	100.0	100.0
Sample Size	4,793,809	950,176 [f]

[a] Original 1850 reporting of "place of birth" recoded by MPC.

[b] Includes Northern Ireland

[c] Includes England, Channel Islands, Guernsey, Jersey, Isle of Man, Scotland, Wales, and UK-not specified.

[d] Other includes Oceania, At Sea, Other Countries Not Specified, and Unknown.

[e] Detail may not add to total due to rounding.

[f] There were 1,991 free foreign-born males, age 20 and over, who were not reported as White (0.2 percent).

Source: Minnesota Population Center (2020).

Table 2

Occupational Distribution of White Males, Age 20 and Over, by Country of Birth, 1850 (percents)

Occupation	Native Born	Foreign Born						
		All	Ireland	Germany	Great Britain	Canada	Mexico	Other Countries
PTK	3.5	2.0	1.2	2.0	2.9	1.6	1.2	4.8
Farmers	52.2	18.5	12.5	22.5	23.6	25.0	8.1	22.9
Managers	5.3	5.8	4.3	6.7	6.7	3.4	5.0	11.9
Clerical	0.3	0.2	0.2	0.1	0.5	0.2	0.0	0.4
Sales	1.7	2.2	1.8	2.7	2.3	1.5	0.5	3.7
Craft	16.0	20.4	15.0	26.2	25.1	21.1	4.7	19.1
Operatives	9.0	16.9	14.1	15.8	23.4	13.9	53.6	19.2
Service	0.5	1.6	1.9	1.6	1.0	0.5	1.9	3.1
Farm Laborers	3.0	4.0	5.1	3.2	2.6	5.8	5.8	2.5
Non-Farm Laborers	8.6	28.5	44.1	19.3	12.0	27.1	19.2	12.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sample Size	3,843,633	950,176	404,015	259,955	171,625	46,642	7,244	60,695

Notes: Free men who reported an occupation. PTK is Professional, Technical and Kindred occupations, Farmers includes farm owners, farm tenants, and farm managers, Managers is limited to non-farm managers. All apprentices are included as operatives. Detail may not add to total due to rounding.

Source: Minnesota Population Center (2020).

Table 3

Descriptive Statistics of the Variables Used in the Regression Analysis, Free White Males Age 20 and Over, By Nativity, 1850 Census of Population

	Native Born	Foreign Born						
		All	Ireland	Germany	Great Britain	Canada	Mexico	Other Countries
Dependent Variables:								
OccInc	20.23	22.10	21.33	22.46	23.09	20.77	22.52	23.81
	(10.62)	(8.510)	(7.469)	(8.873)	(9.272)	(8.260)	(7.046)	(10.59)
SEI	20.66	19.07	16.05	20.85	21.92	17.27	14.70	25.49
	(17.75)	(16.90)	(15.13)	(16.98)	(18.10)	(14.64)	(14.64)	(21.29)
Explanatory Variables:								
EXP	21.92	19.97	19.18	19.89	22.09	18.29	17.66	21.18
	(13.93)	(11.93)	(11.61)	(11.63)	(12.70)	(12.06)	(10.85)	(12.16)
EXPSQ	674.50	541.18	502.62	530.91	649.23	479.91	429.57	596.69
	(830.6)	(670.8)	(648.7)	(641.2)	(744.9)	(660.7)	(571.6)	(698.3)
Literate	0.93	0.91	0.86	0.98	0.97	0.79	0.49	0.95
	(0.260)	(0.287)	(0.350)	(0.148)	(0.184)	(0.406)	(0.500)	(0.223)
Married	0.65	0.54	0.49	0.59	0.60	0.55	0.21	0.48
	(0.478)	(0.499)	(0.500)	(0.493)	(0.490)	(0.498)	(0.406)	(0.500)
Number of Children	2.05	1.39	1.27	1.42	1.66	1.65	0.50	1.22
	(2.388)	(1.985)	(1.933)	(1.920)	(2.131)	(2.247)	(1.337)	(1.896)
Urban	0.11	0.42	0.44	0.48	0.35	0.20	0.05	0.42
	(0.310)	(0.494)	(0.497)	(0.500)	(0.477)	(0.398)	(0.225)	(0.494)
South	0.33	0.16	0.14	0.23	0.11	0.04	0.29	0.31
	(0.469)	(0.371)	(0.343)	(0.420)	(0.312)	(0.185)	(0.452)	(0.464)
Estimated YSM	--	7.77	7.08	7.19	8.47	NE	NE	NE
		(2.783)	(2.452)	(1.909)	(3.104)			
Sample Size	3,843,633	950,176	404,015	259,955	171,625	46,642	7,244	60,695

Notes for Table 3:
Means and Standard Deviations (in parentheses) for free White males age 20 and over who reported an occupation and have an occupational score, whether native born or foreign born. NE: Not estimated.

Source: Minnesota Population Center (2020).

Table 4

Analysis of Occupational Income Score (OccInc) of Native-Born and Foreign-Born White Men, Age 20 and Over, By Nativity, 1850

	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EXP	0.009182***	0.004413***	0.004088***	-0.0003005*	0.008675***	0.008598***	0.008471***	0.008106***
	(158.21)	(40.96)	(38.06)	(-1.99)	(169.36)	(167.96)	(159.25)	(153.14)
EXP^2	-0.000174***	-0.0000954***	-0.0000929***	-0.000042***	-0.000166***	-0.000165***	-0.000163***	-0.000159***
	(-188.18)	(-52.07)	(-50.89)	(-19.40)	(-201.06)	(-200.21)	(-193.78)	(-189.04)
Literate	0.1142***	0.06843***	0.06215***	0.06822***	0.1079***	0.1070***	0.1070***	0.1080***
	(152.99)	(57.91)	(51.20)	(57.77)	(169.01)	(166.47)	(166.48)	(169.23)
Married	0.02646***	0.05137***	0.05089***	0.05281***	0.02928***	0.02943***	0.02929***	0.02932***
	(53.66)	(60.26)	(59.77)	(61.71)	(68.19)	(68.54)	(68.19)	(68.25)
Number of Children	-0.01877***	-0.008495***	-0.008475***	-0.008961***	-0.01785***	-0.01782***	-0.01778***	-0.01771***
	(-177.89)	(-38.10)	(-38.17)	(-40.13)	(-187.41)	(-187.32)	(-186.66)	(-185.83)
Urban	0.4217***	0.2535***	0.2605***	0.2557***	0.3598***	0.3633***	0.3634***	0.3607***
	(680.83)	(363.35)	(372.14)	(365.86)	(756.81)	(762.07)	(761.96)	(758.00)
South	-0.03394***	0.05426***	0.05313***	0.05360***	-0.02910***	-0.02906***	-0.02909***	-0.02925***
	(-81.72)	(58.73)	(57.01)	(58.06)	(-77.42)	(-77.17)	(-77.26)	(-77.83)
Foreign Born					-0.01141***			-0.1238***
					(-25.30)			(-32.44)
Born in Ireland			-0.08212***			-0.04236***	-0.08998***	
			(-85.27)			(-66.80)	(-23.37)	
Born in Germany			-0.06915***			-0.02851***	-0.07773***	
			(-67.04)			(-37.41)	(-19.45)	
Born in Great Britain			--			0.04557***	-0.003682	
						(49.96)	(-0.91)	
Born in Canada			-0.04464***			0.02228***	-0.02883***	
			(-25.70)			(13.04)	(-6.47)	

Table 4 continued

	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Born in Mexico			0.09893***			0.1959***	0.1442***	
			(24.73)			(45.49)	(24.09)	
Born All Other Countries			-0.01099***			0.03849***	-0.01195**	
			(-7.02)			(25.60)	(-2.75)	
Estimated YSM				0.03942***			0.01095***	0.02179***
				(38.95)			(12.52)	(25.37)
Estimated YSM^2				-0.001564***			-0.000534***	-0.000840***
				(-33.84)			(-12.14)	(-19.33)
Constant	2.7105***	2.8010***	2.8652***	2.6659***	2.7233***	2.7247***	2.7263***	2.7306***
	(2836.08)	(1728.45)	(1534.73)	(677.19)	(3270.29)	(3251.73)	(3177.45)	(3210.82)
Sample Size	3,843,633	950,176	950,176	950,176	4,793,809	4,793,809	4,793,809	4,793,809
R^2	0.144	0.149	0.158	0.151	0.150	0.152	0.152	0.150

Notes: OLS regressions in which the dependent variable is a natural logarithm of the measure of occupational attainment (OccInc). t-ratios in parentheses, $^{\#}\ p < 0.10$, $^{*}\ p < 0.05$, $^{**}\ p < 0.01$, $^{***}\ p < 0.001$. For Columns (3) and (4), the benchmark country of birth is Great Britain.

Source: Minnesota Population Center (2020).

Table 5

Analysis of Socioeconomic Index (SEI) of Native-Born and Foreign-Born White Men, Age 20 and Over, By Nativity, 1850

	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EXP	0.01237***	0.002629***	0.001597***	-0.01802***	0.01108***	0.01087***	0.01042***	0.009088***
	(143.04)	(12.75)	(7.91)	(-62.53)	(138.10)	(136.22)	(125.70)	(109.67)
EXPSQ	-0.000199***	-0.00000886*	-0.000001691	0.0002191***	-0.0001741***	-0.0001722***	-0.00017***	-0.00015***
	(-144.48)	(-2.52)	(-0.49)	(52.65)	(-134.92)	(-134.23)	(-127.27)	(-114.35)
Literate	0.2526***	0.3746***	0.2958***	0.3751***	0.2876***	0.2677***	0.2679***	0.2882***
	(227.23)	(165.59)	(129.58)	(166.68)	(287.53)	(267.24)	(267.49)	(288.46)
Married	0.06082***	0.07551***	0.05779***	0.08478***	0.06116***	0.05741***	0.05764***	0.06175***
	(82.80)	(46.27)	(36.10)	(51.98)	(90.93)	(85.80)	(86.09)	(91.82)
Number of Children	-0.01629***	0.007944***	0.008419***	0.005464***	-0.01314***	-0.01294***	-0.01286***	-0.01270***
	(-103.67)	(18.61)	(20.17)	(12.84)	(-88.10)	(-87.28)	(-86.63)	(-85.13)
Urban	0.5486***	0.2950***	0.3120***	0.3050***	0.4527***	0.4592***	0.4596***	0.4561***
	(594.75)	(220.84)	(237.04)	(228.98)	(607.88)	(618.14)	(618.52)	(612.39)
South	0.05582***	0.1491***	0.1225***	0.1465***	0.06148***	0.05668***	0.05663***	0.06102***
	(90.24)	(84.31)	(69.89)	(83.29)	(104.42)	(96.59)	(96.50)	(103.73)
Foreign Born					-0.2528***			-0.5848***
					(-357.79)			(-97.88)
Born in Ireland			-0.3062***			-0.4172***	-0.4671***	
			(-169.12)			(-422.14)	(-77.85)	
Born in Germany			-0.08741***			-0.1925***	-0.2433***	
			(-45.07)			(-162.06)	(-39.07)	
Born in Great Britain			--			-0.08974***	-0.1468***	
						(-63.12)	(-23.30)	
Born in Canada			-0.09161***			-0.1622***	-0.2288***	
			(-28.05)			(-60.89)	(-32.96)	

Table 5 continued

	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Born in Mexico			-0.1259***			-0.1948***	-0.2602***	
			(-16.74)			(-29.02)	(-27.89)	
Born All Other Countries			0.08642***			-0.01094***	-0.08023***	
			(29.38)			(-4.67)	(-11.85)	
Estimated YSM				0.1492***			0.008134***	0.06039***
				(77.33)			(5.97)	(44.92)
Estimated YSM^2				-0.005490***			-0.0001435*	-0.002035***
				(-62.33)			(-2.10)	(-29.91)
Constant	2.3580***	2.1012***	2.3497***	1.5997***	2.3389***	2.3636***	2.3693***	2.3644***
	(1656.54)	(677.29)	(669.43)	(213.20)	(1792.82)	(1810.05)	(1771.98)	(1776.07)
Sample Size	3,843,633	950,176	950,176	950,176	4,793,809	4,793,809	4,793,809	4,793,809
R^2	0.109	0.096	0.137	0.106	0.104	0.116	0.116	0.106

Notes: OLS regressions in which the dependent variable is a natural logarithm of the measure of occupational attainment (SEI). t-ratios in parentheses, $^{\#}\ p < 0.10$, $^{*}\ p < 0.05$, $^{**}\ p < 0.01$, $^{***}\ p < 0.001$. For Columns (3) and (4), the benchmark country of birth is Great Britain.

Source: Minnesota Population Center (2020).

Table 6

Analysis of Occupational Income Score (OccInc) of Foreign-Born White Men, Age 20 and Over, By Foreign Origin, 1850

	Ireland		Germany		Great Britain	
	(1)	(2)	(3)	(4)	(5)	(6)
EXP	0.003883***	0.001569***	0.002583***	-0.002291***	0.005050***	0.003484***
	(25.25)	(3.46)	(11.79)	(-3.64)	(19.67)	(4.90)
EXPSQ	-0.0000811***	-0.0000531***	-0.00007999***	-0.00001650*	-0.0001151***	-0.00009319***
	(-30.75)	(-9.60)	(-21.19)	(-2.01)	(-27.25)	(-10.91)
Literate	0.05620***	0.05631***	0.08865***	0.08803***	0.07232***	0.07230***
	(40.01)	(40.09)	(20.30)	(20.18)	(16.05)	(16.06)
Married	0.06790***	0.06661***	0.04438***	0.03904***	0.05010***	0.04683***
	(54.27)	(52.84)	(27.31)	(23.77)	(24.29)	(22.59)
Number of Children	-0.005173***	-0.004931***	-0.01065***	-0.009679***	-0.008911***	-0.008812***
	(-15.38)	(-14.59)	(-24.52)	(-22.16)	(-18.14)	(-17.93)
Urban	0.2107***	0.2107***	0.3074***	0.3066***	0.2860***	0.2856***
	(210.98)	(211.02)	(232.02)	(231.53)	(163.49)	(163.35)
South	0.04608***	0.04575***	0.03443***	0.03373***	0.08172***	0.08074***
	(32.03)	(31.80)	(22.16)	(21.72)	(30.74)	(30.38)
Estimated YSM	--	0.03412***	--	0.1128***	--	0.04311***
		(7.20)		(13.52)		(7.22)
Estimated YSM^2	--	-0.001745***	--	-0.006288***	--	-0.002171***
		(-7.67)		(-14.77)		(-8.52)
Constant	2.7967***	2.6837***	2.7820***	2.3854***	2.8377***	2.6717***
	(1309.92)	(173.95)	(564.34)	(81.47)	(534.91)	(125.44)
Samp. Size	404,015	404,015	259,955	259,955	171,625	171,625
R^2	0.126	0.126	0.203	0.204	0.162	0.163

Table 6 cont.

	Canada	Mexico	All Other Countries
	(7)	(8)	(9)
EXP	0.005157***	0.001141	0.008049***
	(10.33)	(1.05)	(17.32)
EXPSQ	-0.0001022***	-0.00005664**	-0.0001409***
	(-12.00)	(-2.79)	(-18.02)
Literate	0.02863***	0.1052***	0.1289***
	(7.27)	(13.56)	(19.19)
Married	0.07746***	-0.04787***	0.0008591
	(19.20)	(-3.92)	(0.23)
Number of Children	-0.01321***	-0.01610***	-0.01262***
	(-13.73)	(-4.58)	(-12.41)
Urban	0.2916***	0.1303***	0.2757***
	(73.65)	(7.79)	(87.77)
South	0.1058***	-0.2040***	0.1222***
	(12.54)	(-20.85)	(36.45)
Constant	2.8172***	3.0845***	2.7367***
	(474.38)	(246.30)	(325.39)
Samp. Size	46,642	7,244	60,695
R^2	0.127	0.174	0.175

Notes to Table 6: All Other Countries excludes Great Britain, Germany, Ireland, Mexico, and Canada. OLS regressions in which the dependent variable is a natural logarithm of the measure of occupational attainment (OccInc). t-ratios in parentheses, $^{\#}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
Source: Minnesota Population Center (2020).

Table 7

Analysis of Socioeconomic Index (SEI) of Foreign-Born White Men, Age 20 and Over, By Foreign Origin, 1850

	Ireland		Germany		Great Britain	
	(1)	(2)	(3)	(4)	(5)	(6)
EXP	-0.0005570$^{\#}$	-0.001936*	-0.001191**	-0.006949***	0.005642***	0.006076***
	(-1.85)	(-2.18)	(-2.90)	(-5.88)	(12.01)	(4.67)
EXPSQ	0.00006818***	0.00008101***	-0.00001208$^{\#}$	0.00006257***	-0.00006938***	-0.00007118***
	(13.22)	(7.49)	(-1.70)	(4.05)	(-8.98)	(-4.55)
Literate	0.2903***	0.2900***	0.2616***	0.2609***	0.3176***	0.3176***
	(105.64)	(105.51)	(31.90)	(31.82)	(38.53)	(38.54)
Married	0.06086***	0.06282***	0.04190***	0.03612***	0.08603***	0.08366***
	(24.86)	(25.47)	(13.73)	(11.71)	(22.80)	(22.05)
Number of Children	0.01667***	0.01623***	0.007575***	0.008608***	0.002055*	0.002181*
	(25.33)	(24.55)	(9.29)	(10.49)	(2.29)	(2.42)
Urban	0.2394***	0.2394***	0.3209***	0.3201***	0.4045***	0.4042***
	(122.52)	(122.52)	(128.97)	(128.61)	(126.40)	(126.31)
South	0.1166***	0.1171***	0.05652***	0.05576***	0.1879***	0.1872***
	(41.43)	(41.58)	(19.37)	(19.11)	(38.63)	(38.48)
Estimated YSM	--	-0.002015	--	0.1279***	--	0.01698
		(-0.22)		(8.16)		(1.56)
Estimated YSM^2	---	0.0003625	--	-0.007086***	--	-0.0009755*
		(0.81)		(-8.86)		(-2.09)
Constant	2.0754***	2.0891***	2.3780***	1.9287***	2.2372***	2.1657***
	(496.82)	(69.21)	(256.85)	(35.05)	(230.54)	(55.55)
Samp. Size	404,015	404,015	259,955	259,955	171,625	171,625
R^2	0.081	0.081	0.074	0.075	0.113	0.113

Table 7 cont.

	Canada	Mexico	All Other Countries
	(7)	(8)	(9)
EXP	0.008980***	-0.00006874	0.01052***
	(10.75)	(-0.04)	(12.64)
EXPSQ	-0.0001375***	0.00001723	-0.0001329***
	(-9.66)	(0.50)	(-9.49)
Literate	0.2988***	0.2738***	0.3032***
	(45.36)	(20.97)	(25.20)
Married	0.1218***	0.06886***	0.04723***
	(18.06)	(3.35)	(7.04)
Number of Children	-0.01394***	0.02894***	0.001420
	(-8.67)	(4.90)	(0.78)
Urban	0.3964***	0.4436***	0.4206***
	(59.86)	(15.76)	(74.76)
South	0.3337***	-0.1922***	0.2614***
	(23.66)	(-11.67)	(43.55)
Constant	2.1635***	2.3260***	2.2423***
	(217.85)	(110.40)	(148.88)
Samp. Size	46,642	7,244	60,695
R^2	0.143	0.116	0.150

Notes to Table 7: All Other Countries excludes Great Britain, Germany, Ireland, Mexico, and Canada. OLS regressions in which the dependent variable is a natural logarithm of the measure of occupational attainment (SEI). t-ratios in parentheses, $^{\#}\ p < 0.10$, $^{*}\ p < 0.05$, $^{**}\ p < 0.01$, $^{***}\ p < 0.001$.

Source: Minnesota Population Center (2020).

Table 8

Change in Mean Occupational Attainment Among the Native-Born and Foreign-Born Adult White Men in the Linked 1850-1860 Sample

	Native Born			Foreign Born		
	1850	1860	Change	1850	1860	Change
OccInc	19.51	19.38	-0.21	21.77	21.75	-0.14
	(10.17)	(10.73)	(8.37)	(8.95)	(9.88)	(7.89)
SEI	19.87	20.63	0.76	20.04	21.78	1.74
	(16.60)	(17.77)	(14.93)	(17.04)	(18.64)	(16.24)
Sample Size	1,066,572			103,091		

Notes: Standard deviations in parentheses.

Source: Minnesota Population Center (2021, 2023).

Appendix A – Statistical Appendix: Definitions of Variables Used in the Regression Analysis of the 1850 Census of Population and the Linked 1850-1860 Census Data

(A) 1850 Census Data

Sample:

- Primary Data Source: 1850 Census of Population, Schedule 1, Public Use Microdata Sample, full count free people sample, Version 7.3, IPUMS International, Minnesota Population Center (MPC), University of Minnesota, Accessed October 15, 2023.
    - Definition of population: Free males, age 20 and older, with a gainful occupation according to the 1850 Census. Individuals with a non-gainful occupation recorded (e.g., unknown, attending school, invalid, and retired) are not included in the sample. Where the person is employed in multiple occupations, the principal one is listed.

Dependent Variables

- Occupational Income Score (OccInc): This is a measure constructed by the Minnesota Population Center (MPC) that assigns a score to each occupation using the 1950 occupational classification scheme. According to the IPUMS codebook, OccInc assigns each occupation a value representing the median total annual income (in hundreds of 1950 dollars) of a sample of individuals (both male and female) with that particular occupation in 1950 (IPUMS-USA, n.d., c). That is, it provides a continuous quantitative measure of occupations according to the economic rewards enjoyed by people working at them in 1950. See Appendix Table A-1 for a list of selected occupations with their OccInc values. The range of OccInc is from a low of 3 for Newsboys to a high of 80 for Physicians and Surgeons.

- Duncan Socioeconomic Index (SEI): This is a measure constructed by the Minnesota Population Center (MPC) that assigns an SEI score to each occupation using the 1950 occupational classification scheme (Duncan, 1961). The SEI is a measure of occupational status based on the occupation's prestige predicted from a regression of the prestige score on the male median annual income level and years of schooling associated with each occupation in 1950. The occupational prestige ratings are from a 1947 National Opinion Research Study, and only considered male occupational incumbents. The SEI variable is constructed using the individual responses to occupation, 1950 basis, from the 1850 Census data (IPUMS-USA, n.d., c). See Appendix Table A-1 for a list of selected occupations with their SEI values. The range of the SEI is from a low of 4 for Lumbermen and Woodchoppers and Porters to a high of 96 for Dentists.

The two measures are interrelated as they both include 1950 occupational income in their construction. The correlations between the two measures for the White men studied are high, but far from perfect – 85 percent for all men, 86 percent for native-born men, and 81 percent for the foreign born (Table A-2). The difference in the scores reflects the divergence between income level and educational level across occupations (Table A-3). The OccInc score tends to be higher than the SEI for occupations that require very little schooling (e.g., laborers), while the opposite is the case for lower income occupations for which higher levels of education are required (e.g., teachers).

Both measures are based on relative occupational incomes in 1950, which may differ from the unknown relative occupational incomes in 1850. In particular, the relative occupational income standing of some occupations may have increased over the century, while others (perhaps

faming) may have decreased. We know of no better quantitative measures of occupational (labor market) attainment for the antebellum period.

In the regression analysis, because of the positive skewness in the OccInc and SEI distributions, the natural logarithm of these indices are the dependent variables.

Explanatory Variables

- Potential Labor Market Experience: This is the respondent's age minus 15 years. Age is the self-reported age of the respondent in years as of his last birthday.

- Literate: This is a dichotomous variable that takes the value of 0 if the individual is recorded as "cannot read and write" in any language (English or their native language), and 1 otherwise (i.e., the individual can read and write). However, the degree of literacy was not defined; therefore, it is unknown whether being able to read/write one's own name qualified them as literate. Individuals who could read but not write were classified as illiterate.

- Married: This is a dichotomous variable that indicates (=1) if the individual is presumed to be married with their spouse present (in the same household). Marital status was not asked in the 1850 Census. Therefore, this variable is constructed using the IPUMS pointer variable for spouse, which identifies the imputed relationships between household members with an estimated 99 percent accuracy rate (IPUMS-USA, n.d., a)

- Children: This is equal to the number of the respondent's own children (of any age or marital status) that are residing in their household. It includes step-children and adopted children as well as biological children.

- Foreign Born: The instructions for the census marshals regarding "Place of Birth" stated that "The marshals should ask the place of birth of each person in the family. If born in the State

or Territory where they reside insert the name or initials of the State or Territory, or the name of the government or country if without the United States. The names of the several states may be abbreviated. Where place of birth is unknown, state 'unknown'" (US Bureau of the Census, 1979, p. 22). Based on this information, the MPC defined the county of birth of the foreign born. The implication is that those born in States or Territories that were part of Mexico at their time of birth are coded as what became their US state (native born). Foreign born (FOR) is a dichotomous variable that distinguishes those with a birthplace outside the United States (=1) from individuals born in a state or territory of the United States (=0). Countries of birth identified for this analysis are: Ireland (including Northern Ireland), Britain, Germany, Canada, Mexico, and All Other foreign countries of birth.

- Estimated Years since Migration (YSM): Since there was no question in the 1850 Census on when foreign-born individuals came to the US, this variable is constructed using immigrant flow data from 1820-1850 by nativity (see Table A-4) and by age group (see Table A-5). These data are used to create a probability distribution of year of arrival by age and country of origin for the three main countries of origin (Great Britain, Germany, and Ireland) and a fourth group of immigrants from All Other Countries (which includes the small number of recorded arrivals from Mexico and Canada).

The expected YSM value was calculated as a function of immigration flow data based on age (i) and nativity (j) using $E(x_{i,j}) = \sum xP(x_{i,j})$, where x is the YSM for the year 1820 (YSM = 31, i.e., arrival up to 31 years previously) through 1850 (YSM=1, i.e., arrival less than 1 year previously). The likelihood of an immigrant arriving in any given year between 1820-1850 is estimated based on their age group in that year (whether they fall into the young (under 15 years old), middle aged (ages 15-40), or older (above 40 years old) age

group), and their nativity. The probability distribution function is re-weighted based on age so that in all cases, the sum of the foreign-born individual's probability of arriving is equal to one. The result is that all individuals with the same age and same birth country will be assigned the same estimated YSM, but that estimated YSM varies by age among immigrants with the same nativity and varies by nativity among immigrants of the same age. The computation of estimated YSM takes into account not only the immigrant's age and nativity, but also the rate of immigration over time. This procedure does, by construction, result in some inevitable loss of variability among immigrants; however, without additional individual-level data about their arrival, this is the best that can be estimated using the available data as there is no way to systematically determine which individuals immigrated as children versus young adults versus older adults.

In the regression analysis, YSM and its square are coded as zero (=0) for the native born.

- Urban: This is a dichotomous variable that distinguishes individuals living in an urban household from a rural household. The "urban" definition was applied ex-post by the 1940 Census Bureau, in which cities and incorporated places in 1850 of 2,500 inhabitants or more and townships or other subdivisions having a total population of 10,000 or more as well as a population density of 1,000 or more per square mile were coded as "urban"; all other areas were considered rural.

- South: This is a dichotomous variable that distinguishes all slave-holding states in 1850 from all other states: Delaware, Missouri, Virginia (includes West Virginia), Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, Kentucky, Maryland, Tennessee, and the District of Columbia.

- Occupational Category: This variable was constructed based on the occupation data, 1950 basis. The occupational categories are: PTK (Professional, Technical, and Kindred); Farmers (owners, tenants, and managers); Managers (non-farm); Clerical; Sales; Craft (including military and apprentices); Operatives; Service; Farm Workers for wages and farm laborers and fishermen; Laborers (non-farm); No Occupation; and, Not Applicable. Any laborer with no specified industry living in a household with a farmer is recoded as a farm laborer.

(B) 1850-1860 Linked Census Data

Sample

- Data Source for Longitudinal Analysis: 1850 and 1860 Linked Census of Population extract, Public Use Microdata Sample, from full count free people sample from each census year, IPUMS Multigenerational Longitudinal Panel: Version 1.1 and IPUMS Ancestry Full Count Data: Version 3.0, IPUMS, Minnesota Population Center (MPC), University of Minnesota, Accessed June 4, 2024.

    - Definition of population: Free males, age 20 and older in 1850, with a gainful occupation in both the 1850 and 1860 Censuses. Individuals with a non-gainful occupation recorded (e.g., unknown, attending school, invalid, and retired) in either census are not included in the sample. Where the person is employed in multiple occupations, the principal one is listed. The sample is restricted to individuals that could be linked between the 1850 and 1860 Censuses by MPC through the IPUMS Multigenerational Longitudinal Panel (MLP) project. Only about 30 percent of all individuals in the 1850 Census, Schedule 1, were able to be linked to the 1860 Census. For this study, observations with inconsistencies that are relevant to this

analysis were dropped from the sample, e.g., individuals who were listed as native born in one census and foreign born in the other.[26]

Variables Used in the Analyses

- Estimated YSM for 1860 is the individuals estimated YSM from 1850 plus 10 years.
- All other variables for this sample are defined as they were in the 1850 data.

[26] There were 2,385 individuals who had a recorded gainful occupation in both censuses and otherwise met the criteria for inclusion in this study, but the MPC data file had the OccInc coded as "00." As their occupation, 1950 basis, in 1860 was known, the corresponding OccInc scores for 1860 were manually entered.

Table A-1

Occupational Income Scores (OccInc) and Socio-Economic Index (SEI) Scores for Selected Occupations

Occupation[(a)]	**SEI**	**Ln SEI**	**OccInc**	**Ln OccInc**
PTK				
Physicians & Surgeons (075)	92	4.52	80	4.38
Lawyers & Judges (055)	93	4.53	62	4.13
Clergymen (009)	52	3.95	24	3.18
Farmers				
Farmers (owners & tenants) (100)	14	2.64	14	2.64
Managers				
Landlords (230)	32	3.47	20	3.00
Officers, ships (240)	54	3.99	42	3.74
Officers & Administrators (nec), Public Administration (250)	66	4.19	36	3.58
Postmasters (270)	60	4.09	29	3.37
Clerical				
Bank Tellers (305)	52	3.95	26	3.26
Bookkeepers (310)	51	3.93	22	3.09
Clerical & Kindred Workers (nec) (390)	44	3.78	25	3.22
Sales				
Hucksters & Peddlers (430)	8	2.08	13	2.56
Real Estate Agents (470)	62	4.13	35	3.56
Salesmen & Sales Clerks (nec) (490)	47	3.85	24	3.18
Craft				
Bakers (500)	22	3.09	28	3.33
Carpenters (510)	19	2.94	24	3.18
Jewelers, Watchmakers (534)	36	3.58	27	3.30
Plumbers & Pipe Fitters (574)	34	3.53	33	3.50
Shoemakers & Repairers (except factory) (582)	12	2.48	20	3.00
Tailors (590)	23	3.14	26	3.26
Operatives				
Sailors & Deck Hands (673)	16	2.77	23	3.24
Boatmen, Canalmen, & Lock Keepers (623)	24	3.18	30	3.40
Deliverymen & Routemen (632)	32	3.47	27	3.30
Switchmen, Railroad (681)	44	3.78	36	3.58
Taxicab (Hackney) Drivers & Chauffeurs (682)	10	2.30	22	3.09
Furnacemen (641)	18	2.89	29	3.37
Services				
Bartenders (750)	19	2.94	25	3.22
Janitors & Sextons (770)	9	2.20	19	2.94
Marshalls & Constables (771)	21	3.04	24	3.18
Cooks (except private household) (754)	15	2.71	16	2.77

Table A-1 continued

Occupation[(a)]	**SEI**	**Ln SEI**	**OccInc**	**Ln OccInc**
Laborers (farm)				
Farm Foremen (810)	20	3.00	23	3.14
Farm laborers (wage workers) (820)	6	1.79	9	2.20
Laborers (non-farm)				
Gardeners, except farm and groundskeepers (930)	11	2.40	17	2.83
Longshoremen & Stevedores (940)	11	2.40	25	3.22
Laborers (nec) (970)	8	2.08	20	3.00
Range:				
Highest SEI: Dentists (032)	96	4.56	63	4.14
Lowest SEI: Lumbermen, Raftsmen, & Woodchoppers (950) Porters (780)	4	1.39	12 18	2.48 2.89
Highest OccInc: Physicians and Surgeons (075)	92	4.52	80	4.38
Lowest OccInc: Newsboys (460)	27	3.30	3	1.10

[(a)] nec means not elsewhere classified. Occupation code number in parentheses.

Source: Minnesota Population Center (2020).

Table A-2

Correlation of OccInc and SEI for White Men, Age 20 and Older, with a Reported Occupation, by Nativity, 1850

Variables	All	Native Born	Foreign Born
OccInc and SEI	0.8496	0.8654	0.8107
lnOccInc and lnSEI	0.7380	0.7799	0.6742
Sample Size	4,793,809	3,843,633	950,176

Source: Minnesota Population Center (2020).

Table A-3

The "Mismatching" of Scores for Selected Occupations for OccInc and SEI among White Men, Age 20 and Over, with a Reported Occupation, 1850

Occupation	OccInc	SEI	Difference
Weavers, Textiles	23	6	17
Mine Operatives and Laborers	24	10	14
Laborers (nec)	22	10	12
Porters	18	4	14
Teachers (nec)	27	72	-45
Pharmacists	40	82	-42
Musicians and Music Teachers	15	56	-41
Clergymen	24	52	-28

Notes: nec means "not elsewhere classified"

Source: Minnesota Population Center (2020).

Table A-4

Frequency Distribution of Recorded Immigration by Country of Birth, 1820-1850

Year of Arrival	Ireland	Germany	Great Britain	All Other Countries	All Foreign Born
1820	0.36	0.17	0.67	0.31	0.35
1821	0.15	0.07	0.89	0.89	0.38
1822	0.22	0.03	0.34	0.72	0.29
1823	0.19	0.03	0.30	0.70	0.26
1824	0.23	0.04	0.35	0.90	0.33
1825	0.48	0.08	0.58	0.61	0.42
1826	0.53	0.09	0.64	0.58	0.45
1827	0.96	0.07	1.16	0.99	0.79
1828	1.23	0.32	1.48	1.70	1.14
1829	0.73	0.10	0.88	2.51	0.94
1830	0.27	0.34	0.32	3.87	0.97
1831	0.57	0.42	0.69	2.65	0.94
1832	1.23	1.76	1.48	7.20	2.52
1833	0.85	1.21	1.36	8.43	2.44
1834	2.42	3.05	2.91	2.81	2.72
1835	2.07	1.44	2.49	1.59	1.89
1836	3.02	3.58	3.63	2.62	3.17
1837	2.82	4.10	3.39	3.29	3.30
1838	1.25	2.02	1.50	2.03	1.62
1839	2.37	3.63	2.85	2.83	2.83
1840	3.90	5.13	0.72	2.73	3.50
1841	3.73	2.64	4.48	2.44	3.34
1842	5.07	3.52	6.10	2.40	4.35
1843	1.94	2.49	2.34	2.20	2.18
1844	3.31	3.58	3.98	2.22	3.27
1845	4.43	5.93	5.32	3.54	4.76
1846	5.11	9.94	6.15	5.07	6.42
1847	10.43	12.83	6.46	7.05	9.77
1848	11.16	10.10	9.74	4.42	9.42
1849	15.75	10.40	15.27	4.93	12.35
1850	13.22	10.91	11.55	15.78	12.89
Total	100.00	100.00	100.00	100.00	100.00
Sample Size	1,012,240	579,095	360,937	451,951	2,404,224

Notes: Year indicates the fiscal year. For 1820-1831, the fiscal year ended September 30; for 1832-1842, the fiscal year ended December 31; and, for 1843-1850, it again ended September 30. Therefore, the data for 1832 covers a 15-month period (October 1, 1831-December 31, 1832) and the data for 1843 covers a 9-month period (January 1, 1943-September 30, 1943). Great Britain includes England, Scotland, Wales, and United Kingdom-not specified. Ireland includes Northern Ireland. Data was not delineated by gender.

Source: Willcox, 1929, Table I.

Table A-5

Distribution of Total Number of Passengers Arrived in the United States by Age, 1820-1850, as a proportion of the annual number of arrivals

Year	Under 15 Years	Age 15 to 40	Over 40Years	Sample Size
1820	0.1960	0.6568	0.1472	8,384
1821	0.1448	0.7354	0.1199	9,127
1822	0.1295	0.7587	0.1118	6,911
1823	0.1200	0.7609	0.1191	6,354
1824	0.1073	0.7779	0.1149	7,912
1825	0.1610	0.7495	0.0895	10,199
1826	0.1748	0.7331	0.0921	10,837
1827	0.2169	0.6845	0.0986	18,875
1828	0.2794	0.6200	0.1006	27,382
1829	0.3025	0.6255	0.0720	22,520
1830	0.4066	0.5462	0.0472	23,322
1831	0.3237	0.5983	0.0780	22,633
1832	0.3288	0.5950	0.0762	60,482
1833	0.3128	0.6061	0.0810	58,640
1834	0.2480	0.6517	0.1003	65,365
1835	0.2207	0.6678	0.1115	45,374
1826	0.2146	0.6848	0.1005	76,242
1837	0.2250	0.6758	0.0991	79,340
1838	0.2161	0.6566	0.1273	38,914
1839	0.2114	0.6922	0.0964	68,069
1840	0.2381	0.6799	0.0819	84,066
1841	0.2283	0.6739	0.0978	80,289
1842	0.2356	0.6769	0.0875	104,565
1843	0.2800	0.6281	0.0919	52,496
1844	0.2435	0.6544	0.1021	78,615
1845	0.2276	0.6718	0.1006	114,371
1846	0.2367	0.6551	0.1082	154,416
1847	0.2489	0.6642	0.0869	234,968
1848	0.2364	0.6631	0.1005	226,527
1849	0.2260	0.6717	0.1024	297,024
1850	0.2701	0.6472	0.0827	310,004
Average	0.2440	0.6611	0.0950	--
Sample Size	588,112	1,588,127	227,984	2,404,223

Notes: Year indicates the fiscal year. For 1820-1831, the fiscal year ended September 30; for 1832-1842, the fiscal year ended December 31; and, for 1843-1850, it again ended September 30. Therefore, the data for 1832 covers a 15-month period (October 1, 1831-December 31, 1832) and the data for 1843 covers a 9-month period (January 1, 1943-September 30, 1943). Source data included a fourth category, age not stated, which was split evenly between those under 15 and age 15 to 40, for consistency with other data sources (see, for example, Cohn, 2017, Table 2). Data was not delineated by gender.

Sources: Willcox, 1929, Table VII, and authors' calculations

Appendix B: Analysis of Linked 1850 and 1860 Census Data for "The Labor Market Attainment of Immigrants in the Antebellum United States"

Barry R. Chiswick and RaeAnn H. Robinson

Department of Economics

George Washington University

Table B-1

Country of Birth of White Males, Age 20 and Over in 1850,

1850 and 1860 Censuses of Population Linked Sample, percents [a]

Country of Birth	All	Foreign Born
United States	91.19	--
Germany	2.17	24.65
Ireland [b]	3.22	36.51
Great Britain [c]	2.57	29.14
Canada	0.45	5.06
Mexico	0.00	0.03
All Other Countries [d]	0.41	4.61
Total [e]	100.00	100.00
Sample Size	1,169,663	103,091

[a] Original 1850/1860 reporting of "place of birth" recoded by the Minnesota Population Center (MPC).

[b] Includes Northern Ireland

[c] Includes England, Channel Islands, Guernsey, Jersey, Isle of Man, Scotland, Wales, and UK-not specified.

[d] Other includes Africa, Asia, Other Americas, Other Europe, Oceania, At Sea, Other Countries Not Specified, and Unknown.

[e] Detail may not add to total due to rounding.

Source: Minnesota Population Center (2021, 2023).

Table B-2

Occupational Distribution of White Males, Age 20 and Over in 1850, by Country of Birth, 1850 and 1860 Linked Sample (percents)

(A) 1850 Observations used in Longitudinal Sample

Occupation	Native Born	Foreign Born						
		All	Ireland	Germany	Great Britain	Canada	Mexico	Other Countries
PTK	2.8	1.8	1.2	1.7	2.7	1.3	3.6	3.1
Farmers	61.7	34.2	28.5	35.4	37.3	43.7	25.0	43.3
Managers	5.1	7.0	6.1	8.6	6.8	3.8	21.4	11.0
Clerical	0.3	0.2	0.2	0.1	0.3	0.1	0.0	0.3
Sales	0.8	1.1	1.2	1.2	1.1	0.6	3.6	1.1
Craft	16.5	22.6	17.0	28.1	25.2	23.4	7.1	21.5
Operatives	5.4	12.9	11.8	10.4	17.6	7.8	7.1	9.8
Service	0.3	0.9	1.2	0.8	0.6	0.1	0.0	1.5
Farm Laborers	0.1	0.1	0.1	0.1	0.1	0.5	3.6	0.0
Non-Farm Laborers	7.0	19.1	32.7	13.7	8.4	18.6	28.6	8.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sample Size	1,066,572	103,091	37,635	25,410	30,045	5,217	28	4,756

Table B-2 continued

(B) 1860 Observations used in Longitudinal Sample

Occupation	Native Born	Foreign Born						
		All	Ireland	Germany	Great Britain	Canada	Mexico	Other Countries
PTK	2.9	1.9	1.2	1.8	2.8	1.7	7.1	2.8
Farmers	62.8	39.0	32.8	41.0	42.3	46.4	46.4	47.5
Managers	6.7	9.5	8.4	11.3	9.4	5.4	7.1	13.2
Clerical	0.4	0.5	0.5	0.3	0.7	0.2	0.0	0.5
Sales	0.9	1.3	1.3	1.2	1.4	0.6	3.6	1.5
Craft	14.0	20.0	16.2	23.3	22.0	21.1	14.3	17.9
Operatives	4.3	11.2	11.6	9.2	136	7.1	3.6	7.5
Service	0.6	1.3	1.8	1.2	0.9	0.6	0.0	1.8
Farm Laborers	2.7	1.8	2.0	1.3	1.6	3.9	7.1	1.6
Non-Farm Laborers	4.8	13.7	24.2	9.6	5.4	12.9	10.7	5.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sample Size	1,066,572	103,091	37,635	25,410	30,045	5,217	28	4,756

Notes: Free men who reported an occupation. PTK is Professional, Technical and Kindred occupations, Farmers includes farm owners, farm tenants, and farm managers, Managers is limited to non-farm managers. All apprentices are included as operatives. Detail may not add to total due to rounding.

Source: Minnesota Population Center (2021, 2023).

Table B-3

Descriptive Statistics of the Variables Used in the Regression Analysis, Free White Males Age 20 and Over, By Country of Birth, 1850 and 1860 Linked Sample

(A) 1850 Observations used in Longitudinal Sample

	Native Born	Foreign Born						
		All	Ireland	Germany	Great Britain	Canada	Mexico	Other Countries
Dependent Variables:								
OccInc	19.51	21.77	21.44	22.12	22.13	20.03	23.61	22.25
	(10.17)	(8.956)	(8.161)	(9.274)	(9.407)	(8.124)	(10.56)	(10.68)
SEI	19.87	20.04	17.82	21.44	21.44	17.68	26.25	23.80
	(16.60)	(17.04)	(16.20)	(17.37)	(17.43)	(13.71)	(24.51)	(19.80)
Explanatory Variables:								
EXP	23.35	23.56	23.74	22.53	24.49	21.60	20.64	23.93
	(11.15)	(9.812)	(9.832)	(9.054)	(10.23)	(9.809)	(9.784)	(10.04)
EXPSQ	669.57	651.34	660.28	589.38	704.58	562.84	518.43	673.27
	(611.9)	(541.8)	(551.6)	(474.0)	(578.3)	(506.7)	(443.9)	(558.3)
Literate	0.94	0.92	0.86	0.98	0.96	0.84	0.50	0.95
	(0.245)	(0.266)	(0.344)	(0.142)	(0.190)	(0.366)	(0.509)	(0.226)
Married	0.89	0.94	0.95	0.95	0.94	0.93	0.75	0.92
	(0.313)	(0.230)	(0.221)	(0.222)	(0.234)	(0.257)	(0.441)	(0.276)
Number of Children	3.24	3.34	3.53	3.06	3.35	3.41	3.36	3.12
	(2.485)	(2.228)	(2.208)	(2.136)	(2.269)	(2.396)	(2.376)	(2.249)
Urban	0.09	0.35	0.44	0.38	0.27	0.15	0.07	0.28
	(0.282)	(0.478)	(0.496)	(0.486)	(0.445)	(0.352)	(0.262)	(0.449)
South	0.30	0.10	0.08	0.19	0.07	0.02	0.50	0.18
	(0.457)	(0.305)	(0.267)	(0.391)	(0.252)	(0.133)	(0.509)	(0.383)
Estimated YSM	--	8.68	8.13	7.78	9.24	11.02	NE	NE
		(2.879)	(2.640)	(1.929)	(3.084)	(3.099)		
Sample Size	1,066,572	103,091	37,635	25,410	30,045	5,217	28	4,756

Table B-3 continued

(B) 1860 Observations used in Longitudinal Sample

	Native Born	Foreign Born						
		All	Ireland	Germany	Great Britain	Canada	Mexico	Other Countries
Dependent Variables:								
OccInc	19.38 (10.73)	21.75 (9.876)	21.53 (9.120)	22.03 (10.19)	22.06 (10.34)	19.88 (9.199)	19.64 (8.803)	22.05 (11.27)
SEI	20.63 (17.77)	21.78 (18.64)	19.79 (17.90)	23.03 (19.01)	23.23 (19.08)	18.86 (15.51)	23.43 (20.29)	24.91 (20.62)
Explanatory Variables:								
EXP	33.31 (11.18)	33.57 (9.924)	33.76 (10.04)	32.54 (9.060)	34.50 (10.33)	31.62 (9.865)	30.68 (9.684)	33.89 (10.05)
EXPSQ	1234.44 (829.7)	1225.65 (740.2)	1240.74 (756.3)	1140.82 (649.3)	1297.22 (785.4)	1096.94 (700.0)	1031.61 (629.1)	1249.72 (754.4)
Literate	0.94 (0.232)	0.93 (0.247)	0.88 (0.322)	0.98 (0.129)	0.97 (0.170)	0.85 (0.357)	0.57 (0.504)	0.96 (0.190)
Married	0.91 (0.284)	0.94 (0.238)	0.93 (0.249)	0.95 (0.212)	0.94 (0.242)	0.94 (0.234)	0.82 (0.390)	0.93 (0.257)
Number of Children	3.66 (2.472)	4.07 (2.341)	4.26 (2.298)	4.16 (2.327)	3.76 (2.348)	4.12 (2.408)	4.96 (2.516)	3.98 (2.443)
Urban	0.11 (0.315)	0.39 (0.487)	0.47 (0.499)	0.40 (0.490)	0.31 (0.463)	0.18 (0.380)	0.32 (0.476)	0.31 (0.464)
South	0.30 (0.457)	0.10 (0.306)	0.08 (0.268)	0.19 (0.389)	0.07 (0.257)	0.02 (0.140)	0.50 (0.509)	0.18 (0.382)
Estimated YSM	--	18.68 (2.879)	18.13 (2.640)	17.78 (1.929)	19.24 (3.084)	NE	NE	NE
Sample Size	1,066,572	103,091	37,635	25,410	30,045	5,217	28	4,756

Table B-3 continued

(C)1860-1850 Changes in Explanatory Variables in Longitudinal Sample								
	Native Born	Foreign Born						
		All	Ireland	Germany	Great Britain	Canada	Mexico	Other Countries
Dependent Variables:								
Change in OccInc	-0.21	-0.14	-0.01	-0.20	-0.23	-0.17	-3.96	-0.29
	(8.367)	(7.885)	(7.378)	(8.073)	(8.256)	(7.448)	(10.65)	(8.725)
Change in SEI	0.76	1.74	1.98	1.59	1.79	1.17	-2.82	1.10
	(14.93)	(16.24)	(15.96)	(16.38)	(16.79)	(13.29)	(19.31)	(17.04)
Explanatory Variables:								
Change in EXP	9.96	10.01	10.02	10.01	10.01	10.02	10.04	9.97
	(1.753)	(2.275)	(2.800)	(1.830)	(1.974)	(1.943)	(3.012)	(1.849)
No Change in Literacy	0.94	0.91	0.85	0.97	0.95	0.87	0.86	0.93
	(0.231)	(0.280)	(0.358)	(0.176)	(0.210)	(0.334)	(0.356)	(0.251)
Illiterate in 1850, Literate in 1860	0.03	0.05	0.08	0.02	0.03	0.07	0.11	0.04
	(0.176)	(0.215)	(0.279)	(0.132)	(0.162)	(0.253)	(0.315)	(0.200)
Literate in 1850, Illiterate in 1860	0.02	0.04	0.07	0.01	0.02	0.06	0.04	0.03
	(0.155)	(0.189)	(0.248)	(0.118)	(0.138)	(0.235)	(0.189)	(0.157)
No Change in Marital Status	0.90	0.94	0.94	0.94	0.94	0.93	0.79	0.91
	(0.301)	(0.241)	(0.237)	(0.236)	(0.239)	(0.254)	(0.418)	(0.284)
Married in 1850, Unmarried in 1860	0.04	0.03	0.04	0.03	0.03	0.03	0.07	0.04
	(0.195)	(0.179)	(0.190)	(0.162)	(0.177)	(0.165)	(0.262)	(0.192)
Unmarried in 1850, Married in 1860	0.06	0.03	0.02	0.03	0.03	0.04	0.14	0.05
	(0.240)	(0.167)	(0.148)	(0.176)	(0.165)	(0.198)	(0.356)	(0.218)
Change in Number of Children	0.42	0.73	0.73	1.09	0.41	0.70	1.61	0.86
	(2.434)	(2.417)	(2.419)	(2.405)	(2.353)	(2.517)	(3.143)	(2.455)
No Change in Urban Status	0.95	0.88	0.89	0.88	0.87	0.92	0.68	0.90
	(0.219)	(0.321)	(0.315)	(0.325)	(0.335)	(0.268)	(0.476)	(0.296)

Table B-3 continued

(C)1860-1850 Changes in Explanatory Variables in Longitudinal Sample continued								
	Native Born	Foreign Born						
		All	Ireland	Germany	Great Britain	Canada	Mexico	Other Countries
Urban in 1850, Rural in 1860	0.01 (0.114)	0.04 (0.200)	0.04 (0.190)	0.05 (0.220)	0.04 (0.206)	0.02 (0.153)	0.04 (0.189)	0.03 (0.175)
Rural in 1850, Urban in 1860	0.04 (0.190)	0.07 (0.262)	0.07 (0.262)	0.07 (0.253)	0.08 (0.278)	0.05 (0.226)	0.29 (0.460)	0.07 (0.247)
No Change in Region	0.99 (0.104)	0.99 (0.111)	0.99 (0.0954)	0.98 (0.138)	0.99 (0.108)	0.99 (0.0744)	1.00 (0)	0.99 (0.105)
Lived in South in 1850, Non-South in 1860	0.01 (0.0766)	0.01 (0.0772)	0.00 (0.0657)	0.01 (0.105)	0.00 (0.0669)	0.00 (0.0415)	0.00 (0)	0.01 (0.0779)
Lived in Non-South in 1850, South in 1860	0.01 (0.0712)	0.01 (0.0798)	0.00 (0.0696)	0.01 (0.0914)	0.01 (0.0851)	0.00 (0.0618)	0.00 (0)	0.01 (0.0709)
Estimated YSM in 1860	--	18.68 (2.879)	18.13 (2.640)	17.78 (1.929)	19.24 (3.084)	NE	NE	NE
Sample Size	1,066,572	103,091	37,635	25,410	30,045	5,217	28	4,756

Notes: Means and Standard Deviations (in parentheses) for free White males age 20 and over who reported an occupation and have an occupational score, whether native born or foreign born. NE: Not estimated.

Source: Minnesota Population Center (2021, 2023).

Table B-4

Analysis of Occupational Income Score (OccInc) of Native-Born and Foreign-Born White Men, Age 20 and Over in 1850, By Nativity, 1850-1860 Census Linked Samples

(A) 1850 Observations used in Longitudinal Sample

	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EXP	0.009043***	0.004068***	0.003936***	0.003056***	0.008870***	0.008854***	0.008865***	0.008804***
	(63.10)	(8.71)	(8.44)	(5.25)	(64.71)	(64.61)	(64.25)	(63.82)
EXP^2	-0.00020***	-0.00013***	-0.00013***	-0.00012***	-0.00019***	-0.00019***	-0.00019***	-0.00019***
	(-78.58)	(-15.29)	(-15.31)	(-12.71)	(-80.89)	(-80.85)	(-80.55)	(-80.34)
Literate	0.08715***	0.07166***	0.06103***	0.07138***	0.08883***	0.08736***	0.08736***	0.08880***
	(61.92)	(19.43)	(16.26)	(19.34)	(67.29)	(66.04)	(66.03)	(67.27)
Married	0.02198***	0.02721***	0.02788***	0.02803***	0.02154***	0.02160***	0.02148***	0.02180***
	(18.50)	(6.11)	(6.27)	(6.28)	(18.80)	(18.86)	(18.73)	(19.00)
Number of Children	-0.01637***	-0.008781***	-0.008321***	-0.00880***	-0.01606***	-0.01601***	-0.01600***	-0.01606***
	(-95.64)	(-16.85)	(-15.96)	(-16.90)	(-98.57)	(-98.27)	(-98.25)	(-98.60)
Urban	0.4305***	0.3009***	0.3083***	0.3016***	0.4038***	0.4061***	0.4060***	0.4042***
	(356.73)	(144.37)	(146.09)	(143.83)	(381.44)	(382.31)	(381.71)	(380.77)
South	-0.03363***	0.09277***	0.09739***	0.09294***	-0.03076***	-0.03069***	-0.03068***	-0.03077***
	(-43.95)	(28.76)	(29.83)	(28.80)	(-41.59)	(-41.46)	(-41.44)	(-41.60)
Foreign Born					0.01017***			-0.02695*
					(8.69)			(-2.04)
Born in Ireland			-0.06241***			-0.02165***	-0.03696**	
			(-25.12)			(-11.64)	(-2.79)	
Born in Germany			-0.05580***			-0.001058	-0.01722	
			(-20.53)			(-0.48)	(-1.28)	
Born in Great Britain			--			0.05089***	0.03665**	
						(25.00)	(2.73)	
Born in Canada			-0.04237***			0.02284***	0.01068	
			(-8.92)			(4.76)	(0.75)	

Table B-4 continued

(A) 1850 Observations used in Longitudinal Sample continued

	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Born in Mexico			0.09402			0.2373***	0.2255***	
			(1.58)			(3.64)	(3.39)	
Born All Other Countries			-0.02711***			0.03626***	0.02544#	
			(-5.52)			(7.22)	(1.80)	
Estimated YSM				0.006689*			0.004302	0.006695*
				(2.05)			(1.51)	(2.37)
Estimated YSM^2				-0.0002390			-0.0002687#	-0.0002520#
				(-1.62)			(-1.92)	(-1.82)
Constant	2.7297***	2.8203***	2.8679***	2.7988***	2.7311***	2.7324***	2.7322***	2.7320***
	(1283.89)	(392.61)	(384.56)	(205.48)	(1346.21)	(1345.15)	(1337.93)	(1340.05)
Sample Size	1,066,572	103,091	103,091	103,091	1,169,663	1,169,663	1,169,663	1,169,663
R^2	0.140	0.207	0.212	0.207	0.151	0.151	0.151	0.151

(B) 1860 Observations used in Longitudinal Sample

	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EXP	0.003659***	-0.001052#	-0.001172#	-0.00255***	0.003407***	0.003386***	0.003417***	0.003357***
	(20.73)	(-1.75)	(-1.95)	(-3.56)	(20.12)	(20.00)	(20.06)	(19.71)
EXP^2	-0.00009***	-0.000026**	-0.000024**	-0.000012	-0.00008***	-0.00008***	-0.00008***	-0.00008***
	(-36.16)	(-3.17)	(-2.99)	(-1.33)	(-36.18)	(-36.06)	(-35.95)	(-35.83)
Literate	0.1054***	0.09504***	0.08244***	0.09460***	0.1070***	0.1054***	0.1054***	0.1069***
	(66.64)	(22.08)	(18.83)	(21.97)	(71.88)	(70.71)	(70.70)	(71.86)
Married	0.03735***	0.04026***	0.03760***	0.04025***	0.03723***	0.03697***	0.03693***	0.03726***
	(28.11)	(8.77)	(8.21)	(8.77)	(29.19)	(29.00)	(28.96)	(29.21)
Number of Children	-0.01201***	-0.005991***	-0.004816***	-0.00592***	-0.01168***	-0.01157***	-0.01160***	-0.01168***
	(-73.68)	(-12.32)	(-9.89)	(-12.08)	(-75.48)	(-74.77)	(-74.93)	(-75.43)

Table B-4 continued

(B) 1860 Observations used in Longitudinal Sample continued								
	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Urban	0.4719***	0.3922***	0.4003***	0.3930***	0.4580***	0.4597***	0.4595***	0.4581***
	(408.03)	(176.61)	(177.79)	(175.96)	(443.01)	(443.48)	(442.72)	(442.06)
South	-0.01766***	0.08550***	0.08909***	0.08547***	-0.01508***	-0.01512***	-0.01507***	-0.01510***
	(-21.49)	(24.55)	(25.27)	(24.53)	(-19.00)	(-19.03)	(-18.97)	(-19.01)
Foreign Born					0.003693**			-0.1777**
					(2.97)			(-3.03)
Born in Ireland			-0.06536***			-0.02834***	-0.1599**	
			(-24.24)			(-14.32)	(-2.72)	
Born in Germany			-0.05137***			-0.002057	-0.1352*	
			(-17.46)			(-0.87)	(-2.29)	
Born in Great Britain			--			0.04049***	-0.08876	
						(18.66)	(-1.50)	
Born in Canada			-0.03155***			0.01832***	-0.1066#	
			(-6.13)			(3.58)	(-1.80)	
Born in Mexico			-0.1186#			-0.01493	-0.1392	
			(-1.84)			(-0.21)	(-1.53)	
Born All Other Countries			-0.02517***			0.02789***	-0.09449	
			(-4.73)			(5.21)	(-1.60)	
Estimated YSM				0.02402***			0.01547**	0.01824**
				(3.72)			(2.58)	(3.06)
Estimated YSM^2				-0.00055***			-0.00044**	-0.00045**
				(-3.57)			(-2.98)	(-3.02)
Constant	2.7141***	2.7995***	2.8469***	2.5819***	2.7164***	2.7179***	2.7170***	2.7174***
	(802.49)	(241.39)	(241.43)	(43.18)	(838.81)	(838.81)	(832.68)	(833.63)
Sample Size	1,066,572	103,091	103,091	103,091	1,169,663	1,169,663	1,169,663	1,169,663
R^2	0.161	0.263	0.267	0.263	0.175	0.176	0.176	0.175

Table B-4 continued

(C) 1850-1860 Changes in Longitudinal Sample

	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in Experience	0.003426***	0.0009899	0.001611	0.0007265	0.002923***	0.003048***	0.002985***	0.002882***
	(5.40)	(0.78)	(1.26)	(0.57)	(5.12)	(5.33)	(5.22)	(5.05)
Change in EXP^2	-0.00022***	-0.0000730	-0.000105#	-0.0000710	-0.00019***	-0.00020***	-0.00020***	-0.00019***
	(-7.15)	(-1.20)	(-1.72)	(-1.17)	(-6.95)	(-7.17)	(-7.10)	(-6.92)
Illiterate in 1850, Literate in 1860	-0.01074***	0.002457	0.0002685	0.001743	-0.00919***	-0.00949***	-0.00955***	-0.00928***
	(-5.86)	(0.54)	(0.06)	(0.38)	(-5.39)	(-5.56)	(-5.60)	(-5.45)
Literate in 1850, Illiterate in 1860	-0.02654***	-0.03344***	-0.03577***	-0.03407***	-0.02754***	-0.02786***	-0.02790***	-0.02761***
	(-12.75)	(-6.47)	(-6.86)	(-6.59)	(-14.22)	(-14.37)	(-14.39)	(-14.26)
Married in 1850, Nonmarried in 1860	0.008947***	0.002994	0.002650	0.003299	0.008536***	0.008510***	0.008516***	0.008538***
	(5.37)	(0.54)	(0.48)	(0.60)	(5.35)	(5.34)	(5.34)	(5.35)
Nonmarried in 1850, Married in 1860	-0.00383**	0.004906	0.006094	0.004575	-0.003556**	-0.003509**	-0.003453**	-0.003472**
	(-2.82)	(0.83)	(1.03)	(0.77)	(-2.69)	(-2.65)	(-2.61)	(-2.62)
Number of Children	-0.00235***	-0.0004646	-0.0005116	-0.00196***	-0.00220***	-0.00220***	-0.00232***	-0.00233***
	(-17.44)	(-1.13)	(-1.24)	(-4.10)	(-17.11)	(-17.14)	(-17.85)	(-17.95)
Urban in 1850, Rural in 1860	-0.1496***	-0.1615***	-0.1615***	-0.1627***	-0.1523***	-0.1522***	-0.1525***	-0.1526***
	(-52.84)	(-32.85)	(-32.82)	(-33.07)	(-61.60)	(-61.59)	(-61.70)	(-61.75)
Rural in 1850, Urban in 1860	0.1139***	0.08347***	0.08359***	0.08246***	0.1093***	0.1093***	0.1091***	0.1091***
	(67.32)	(22.36)	(22.38)	(22.07)	(70.61)	(70.62)	(70.48)	(70.46)
South in 1850, Non-South in 1860	-0.02070***	-0.07455***	-0.07450***	-0.07533***	-0.02574***	-0.02571***	-0.02575***	-0.02582***
	(-4.93)	(-5.86)	(-5.85)	(-5.92)	(-6.46)	(-6.45)	(-6.46)	(-6.48)
Non-South in 1850, South in 1860	-0.007117	-0.005942	-0.005603	-0.006320	-0.007206#	-0.007137#	-0.007162#	-0.007242#
	(-1.58)	(-0.48)	(-0.46)	(-0.52)	(-1.70)	(-1.68)	(-1.69)	(-1.71)
Foreign Born					0.003733***			0.1949***
					(3.44)			(3.72)
Born in Ireland			0.009974***			0.01022***	0.1868***	
			(4.04)			(5.86)	(3.55)	

Table B-4 continued

(C) 1850-1860 Changes in Longitudinal Sample continued								
	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Born in Germany			0.002982			0.003023	0.1795***	
			(1.11)			-0.001095	0.1780***	
Born in Great Britain			--			(-0.57)	(3.38)	
						(49.96)	(-0.91)	
Born in Canada			-0.005131			-0.004401	0.1784***	
			(-1.09)			(-0.96)	(3.37)	
Born in Mexico			-0.1751**			-0.1771**	0.005170	
			(-2.95)			(-2.84)	(0.06)	
Born All Other Countries			-0.003196			-0.002801	0.1805***	
			(-0.65)			(-0.58)	(3.43)	
Estimated YSM				-0.01674**			-0.01624**	-0.01739**
				(-3.27)			(-3.04)	(-3.27)
Estimated YSM^2				0.0003595**			0.0003514**	0.0003745**
				(2.84)			(2.64)	(2.83)
Constant	-0.03188***	-0.01803*	-0.02462***	0.1699***	-0.02958***	-0.03016***	-0.02968***	-0.02918***
	(-9.22)	(-2.51)	(-3.33)	(3.29)	(-9.45)	(-9.63)	(-9.47)	(-9.32)
Sample Size	1,066,572	103,091	103,091	103,091	1,169,663	1,169,663	1,169,663	1,169,663
R^2	0.008	0.017	0.018	0.018	0.008	0.008	0.008	0.008

Notes: OLS regressions in which the dependent variable is a natural logarithm of the measure of occupational attainment (OccInc). t-ratios in parentheses, $^{\#}\ p < 0.10$, $^{*}\ p < 0.05$, $^{**}\ p < 0.01$, $^{***}\ p < 0.001$. For Columns (3) and (4), the benchmark country of birth is Great Britain. In Panel (C), the benchmark for literacy, marital status, urban status, and region is no change from 1850-1860.

Source: Minnesota Population Center (2021, 2023).

Table B-5

Analysis of Socioeconomic Index (SEI) of Native-Born and Foreign-Born White Men, Age 20 and Over, By Nativity, 1850-1860 Linked Sample

(A) 1850 Observations used in Longitudinal Sample

	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EXP	0.01666***	0.009663***	0.008492***	-0.003032**	0.01643***	0.01629***	0.01584***	0.01573***
	(81.63)	(10.99)	(9.77)	(-2.77)	(81.76)	(81.28)	(78.51)	(77.84)
EXP^2	-0.00029***	-0.00014***	-0.00012***	-0.0000063	-0.00028***	-0.00028***	-0.00027***	-0.00027***
	(-80.74)	(-8.94)	(-7.77)	(-0.37)	(-79.71)	(-79.30)	(-77.65)	(-77.49)
Literate	0.1925***	0.3860***	0.3255***	0.3820***	0.2190***	0.2109***	0.2107***	0.2187***
	(96.03)	(55.60)	(46.54)	(55.10)	(113.19)	(108.98)	(108.93)	(113.09)
Married	0.03042***	-0.001550	-0.002245	0.007677	0.02604***	0.02582***	0.02742***	0.02883***
	(17.98)	(-0.18)	(-0.27)	(0.92)	(15.50)	(15.41)	(16.35)	(17.16)
Number of Children	-0.01799***	-0.003850***	-0.0001478	-0.00416***	-0.01720***	-0.01683***	-0.01686***	-0.01725***
	(-73.82)	(-3.93)	(-0.15)	(-4.25)	(-72.07)	(-70.64)	(-70.77)	(-72.30)
Urban	0.5057***	0.2167***	0.2487***	0.2252***	0.4428***	0.4510***	0.4525***	0.4466***
	(294.31)	(55.24)	(63.24)	(57.19)	(285.37)	(290.29)	(290.95)	(287.17)
South	0.03563***	0.2274***	0.2110***	0.2291***	0.04105***	0.03967***	0.03950***	0.04095***
	(32.70)	(37.45)	(34.68)	(37.79)	(37.87)	(36.64)	(36.49)	(37.80)
Foreign Born					-0.1533***			-0.5383***
					(-89.41)			(-27.80)
Born in Ireland			-0.2184***			-0.3067***	-0.5817***	
			(-47.18)			(-112.77)	(-30.07)	
Born in Germany			-0.05419***			-0.1089***	-0.3843***	
			(-10.70)			(-33.59)	(-19.49)	
Born in Great Britain			--			-0.04696***	-0.3337***	
						(-15.77)	(-16.98)	
Born in Canada			-0.05309***			-0.09529***	-0.3994***	
			(-6.00)			(-13.57)	(-19.09)	

Table B-5 continued

(A) 1850 Observations used in Longitudinal Sample continued

	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Born in Mexico			0.1547			0.1755#	-0.1244	
			(1.40)			(1.84)	(-1.28)	
Born All Other Countries			0.06702***			0.03173***	-0.2732***	
			(7.33)			(4.32)	(-13.19)	
Estimated YSM				0.09217***			0.05299***	0.06876***
				(15.02)			(12.75)	(16.59)
Estimated YSM^2				-0.00348***			-0.00214***	-0.00254***
				(-12.53)			(-10.47)	(-12.51)
Constant	2.4061***	2.1892***	2.3313***	1.8862***	2.3867***	2.3947***	2.4007***	2.3959***
	(794.71)	(161.94)	(167.78)	(73.72)	(802.65)	(806.03)	(803.89)	(802.17)
Sample Size	1,066,572	103,091	103,091	103,091	1,169,663	1,169,663	1,169,663	1,169,663
R^2	0.097	0.075	0.099	0.078	0.088	0.092	0.092	0.088

(B) 1860 Observations used in Longitudinal Sample

	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EXP	0.007589***	0.002633*	0.001847#	-0.008418***	0.007415***	0.007306***	0.006931***	0.006794***
	(30.04)	(2.41)	(1.71)	(-6.48)	(29.85)	(29.47)	(27.79)	(27.20)
EXP^2	-0.00012***	-0.0000356*	-0.0000209	0.0000606***	-0.00012***	-0.00012***	-0.00011***	-0.00011***
	(-35.33)	(-2.41)	(-1.42)	(3.76)	(-34.58)	(-34.12)	(-32.95)	(-32.87)
Literate	0.2153***	0.4040***	0.3448***	0.4014***	0.2399***	0.2323***	0.2322***	0.2397***
	(95.06)	(51.76)	(43.78)	(51.47)	(109.93)	(106.38)	(106.33)	(109.85)
Married	0.06051***	0.04081***	0.02804***	0.04087***	0.05778***	0.05652***	0.05682***	0.05828***
	(31.82)	(4.90)	(3.40)	(4.92)	(30.89)	(30.27)	(30.43)	(31.17)
Number of Children	-0.01179***	-0.001563#	0.002350**	-0.0005115	-0.01123***	-0.01081***	-0.01077***	-0.01109***
	(-50.54)	(-1.77)	(2.68)	(-0.58)	(-49.48)	(-47.71)	(-47.52)	(-48.84)

Table B-5 continued

(B) 1860 Observations used in Longitudinal Sample continued								
	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Urban	0.5644***	0.2921***	0.3217***	0.2988***	0.5133***	0.5197***	0.5207***	0.5158***
	(341.01)	(72.55)	(79.39)	(73.88)	(338.54)	(342.35)	(342.56)	(339.46)
South	0.03257***	0.1976***	0.1839***	0.1983***	0.03614***	0.03486***	0.03472***	0.03594***
	(27.70)	(31.29)	(28.99)	(31.43)	(31.03)	(29.96)	(29.84)	(30.87)
Foreign Born					-0.1177***			-1.4251***
					(-64.50)			(-16.55)
Born in Ireland			-0.2096***			-0.2595***	-1.2857***	
			(-43.21)			(-89.49)	(-14.91)	
Born in Germany			-0.06392***			-0.07661***	-1.1050***	
			(-12.07)			(-22.18)	(-12.76)	
Born in Great Britain			--			-0.01433***	-1.0476***	
						(-4.51)	(-12.12)	
Born in Canada			-0.07365***			-0.08045***	-1.1231***	
			(-7.95)			(-10.74)	(-12.94)	
Born in Mexico			0.01433			0.03229	-1.0065***	
			(0.12)			(0.32)	(-7.54)	
Born All Other Countries			0.03986***			0.04208***	-0.9981***	
			(4.16)			(5.37)	(-11.56)	
Estimated YSM				0.1403***			0.1003***	0.1221***
				(12.00)			(11.44)	(13.97)
Estimated YSM^2				-0.00309***			-0.00236***	-0.00272***
				(-11.01)			(-10.84)	(-12.57)
Constant	2.4292***	2.2464***	2.3903***	0.9787***	2.4112***	2.4191***	2.4268***	2.4241***
	(501.87)	(106.83)	(112.65)	(9.04)	(507.62)	(509.82)	(507.89)	(507.14)
Sample Size	1,066,572	103,091	103,091	103,091	1,169,663	1,169,663	1,169,663	1,169,663
R^2	0.116	0.086	0.105	0.088	0.107	0.111	0.111	0.108

Table B-5 continued

(C) 1850-1860 Changes in Longitudinal Sample

	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Change in Experience	0.003315***	0.001166	0.003447	0.0002358	0.002819**	0.003262***	0.003262***	0.002686**
	(3.46)	(0.49)	(1.46)	(0.10)	(3.20)	(3.70)	(3.70)	(3.05)
Change in EXP^2	-0.000230***	-0.000030	-0.00015	-0.000025	-0.00019***	-0.00022***	-0.00022***	-0.00019***
	(-4.93)	(-0.27)	(-1.30)	(-0.23)	(-4.53)	(-5.05)	(-5.05)	(-4.48)
Illiterate in 1850, Literate in 1860	0.0006826	0.04713***	0.03892***	0.04471***	0.006407*	0.005345*	0.005345*	0.006122*
	(0.25)	(5.60)	(4.58)	(5.32)	(2.44)	(2.03)	(2.03)	(2.33)
Literate in 1850, Illiterate in 1860	-0.04693***	-0.06630***	-0.07480***	-0.06841***	-0.04956***	-0.05065***	-0.05065***	-0.04979***
	(-14.90)	(-6.93)	(-7.76)	(-7.16)	(-16.59)	(-16.94)	(-16.94)	(-16.67)
Married in 1850, Nonmarried in 1860	-0.003861	-0.02504*	-0.02622*	-0.02401*	-0.005393*	-0.005474*	-0.005474*	-0.005394*
	(-1.53)	(-2.45)	(-2.57)	(-2.35)	(-2.19)	(-2.23)	(-2.23)	(-2.19)
Nonmarried in 1850, Married in 1860	0.03666***	0.01884#	0.02243*	0.01857#	0.03557***	0.03569***	0.03569***	0.03592***
	(17.80)	(1.72)	(2.05)	(1.70)	(17.42)	(17.48)	(17.48)	(17.59)
Number of Children	0.0006445**	0.005644***	0.005817***	-0.0000374	0.001071***	0.001083***	0.001083***	0.0005891**
	(3.16)	(7.42)	(7.62)	(-0.04)	(5.41)	(5.47)	(5.47)	(2.94)
Urban in 1850, Rural in 1860	-0.1401***	-0.1178***	-0.1175***	-0.1224***	-0.1343***	-0.1342***	-0.1342***	-0.1356***
	(-32.72)	(-12.95)	(-12.92)	(-13.46)	(-35.22)	(-35.19)	(-35.19)	(-35.57)
Rural in 1850, Urban in 1860	0.1498***	0.1011***	0.1004***	0.09727***	0.1425***	0.1423***	0.1423***	0.1417***
	(58.52)	(14.65)	(14.53)	(14.08)	(59.68)	(59.63)	(59.63)	(59.36)
South in 1850, Non-South in 1860	-0.02448***	-0.05596*	-0.05255*	-0.05894*	-0.02735***	-0.02698***	-0.02698***	-0.02763***
	(-3.86)	(-2.38)	(-2.23)	(-2.51)	(-4.45)	(-4.39)	(-4.39)	(-4.49)
Non-South in 1850, South in 1860	-0.008202	-0.009991	-0.008314	-0.01173	-0.008668	-0.008402	-0.008402	-0.008832
	(-1.20)	(-0.44)	(-0.37)	(-0.52)	(-1.32)	(-1.28)	(-1.28)	(-1.35)
Foreign Born					0.05245***			0.5531***
					(31.33)			(6.84)
Born in Ireland			0.02369***			0.07386***	0.07386***	
			(5.18)			(27.44)	(27.44)	

Table B-5 continued

(C) 1850-1860 Changes in Longitudinal Sample continued								
	Native Born	Foreign Born			Native and Foreign Born			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Born in Germany			-0.01152*			0.03943***	0.03943***	
			(-2.31)			(12.16)	(12.16)	
Born in Great Britain			--			0.04729***	0.04729***	
						(15.84)	(15.84)	
Born in Canada			-0.02600**			0.02404***	0.02404***	
			(-2.98)			(3.40)	(3.40)	
Born in Mexico			-0.1095			-0.06465	-0.06465	
			(-1.00)			(-0.67)	(-0.67)	
Born All Other Countries			-0.03101***			0.01878*	0.01878*	
			(-3.42)			(2.54)	(2.54)	
Estimated YSM				-0.04470***				-0.04325***
				(-4.72)				(-5.27)
Estimated YSM^2				0.0008889***				0.0008607***
				(3.80)				(4.22)
Constant	-0.001853	0.05031***	0.03730**	0.5814***	-0.0005797	-0.002638	-0.002638	0.0008031
	(-0.35)	(3.79)	(2.72)	(6.10)	(-0.12)	(-0.55)	(-0.55)	(0.17)
Sample Size	1,066,572	103,091	103,091	103,091	1,169,663	1,169,663	1,169,663	1,169,663
R^2	0.005	0.006	0.006	0.007	0.006	0.006	0.006	0.006

Notes: OLS regressions in which the dependent variable is a natural logarithm of the measure of occupational attainment (SEI). t-ratios in parentheses, $^{\#}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. For Columns (3) and (4), the benchmark country of birth is Great Britain. In Panel (C), the benchmark for literacy, marital status, urban status, and region is no change from 1850-1860.
Source: Minnesota Population Center (2021, 2023).

Table B-6

Analysis of Occupational Income Score (OccInc) of Foreign-Born White Men, Age 20 and Over, By Foreign Origin, 1850-1860 Linked Samples

(A) 1850 Observations used in Longitudinal Sample

	Ireland		Germany		Great Britain	
	(1)	(2)	(3)	(4)	(5)	(6)
EXP	0.003632***	0.004413***	0.005497***	0.002384	0.002544**	0.002018
	(5.16)	(3.48)	(5.40)	(1.21)	(2.84)	(1.20)
EXPSQ	-0.0001196***	-0.0001244***	-0.0001600***	-0.0001031***	-0.0001107***	-0.00009602***
	(-9.85)	(-7.23)	(-8.54)	(-3.62)	(-7.17)	(-4.24)
Literate	0.06609***	0.06651***	0.07516***	0.07458***	0.05518***	0.05489***
	(15.28)	(15.37)	(5.36)	(5.33)	(5.46)	(5.43)
Married	0.01631*	0.01438*	0.01397	0.007695	0.05055***	0.04848***
	(2.34)	(2.06)	(1.49)	(0.82)	(5.88)	(5.63)
Number of Children	-0.007447***	-0.007387***	-0.01106***	-0.01080***	-0.006471***	-0.006601***
	(-9.33)	(-9.25)	(-9.89)	(-9.66)	(-6.60)	(-6.72)
Urban	0.2611***	0.2611***	0.3437***	0.3428***	0.3312***	0.3310***
	(85.45)	(85.46)	(81.84)	(81.68)	(76.06)	(76.00)
South	0.1202***	0.1200***	0.05208***	0.05158***	0.1054***	0.1049***
	(21.63)	(21.60)	(10.16)	(10.07)	(13.79)	(13.73)
Estimated YSM	--	0.005302	--	0.09217***	--	0.01919
		(0.43)		(3.75)		(1.56)
Estimated YSM^2	--	-0.0004255	--	-0.005353***	--	-0.001009#
		(-7.67)		(-4.22)		(-1.89)
Constant	2.8315***	2.8053***	2.8002***	2.4698***	2.8632***	2.7869***
	(262.43)	(67.50)	(148.09)	(28.22)	(184.51)	(61.96)
Samp. Size	37,635	37,635	25,410	25,410	30,045	30,045
R^2	0.210	0.210	0.249	0.251	0.194	0.194

Table B-6 cont.

(A) 1850 Observations used in Longitudinal Sample continued			
	Canada	Mexico	All Other Countries
	(7)	(8)	(9)
EXP	0.004250*	0.01395	0.01056***
	(2.07)	(0.36)	(4.42)
EXPSQ	-0.0001051**	-0.00005941	-0.0002079***
	(-2.80)	(-0.07)	(-5.00)
Literate	-0.02105#	0.3391*	0.1299***
	(-1.76)	(2.45)	(5.83)
Married	0.06760***	0.06798	-0.01690
	(3.77)	(0.37)	(-0.88)
Number of Children	-0.01499***	-0.06405	-0.01066***
	(-6.50)	(-1.34)	(-4.03)
Urban	0.3135***	-0.2517	0.4030***
	(25.39)	(-0.89)	(35.59)
South	0.06255#	-0.3099#	0.2101***
	(1.93)	(-2.02)	(15.92)
Constant	2.8622***	2.9828***	2.6745***
	(111.45)	(7.36)	(73.47)
Samp. Size	5,217	28	4,756
R^2	0.130	0.610	0.275

Table B-6 continued

(B) 1860 Observations used in Longitudinal Sample						
	Ireland		Germany		Great Britain	
	(1)	(2)	(3)	(4)	(5)	(6)
EXP	-0.001256	-0.0003392	-0.002657*	-0.003952#	-0.001151	-0.002741
	(-1.38)	(-0.26)	(-1.98)	(-1.79)	(-1.01)	(-1.48)
EXPSQ	-0.00002386#	-0.00002909*	-0.000004434	0.00001919	-0.00002935#	-0.000006542
	(-1.95)	(-1.97)	(-0.23)	(0.74)	(-1.93)	(-0.32)
Literate	0.08161***	0.08203***	0.09391***	0.09251***	0.09407***	0.09347***
	(16.00)	(16.08)	(5.69)	(5.61)	(7.75)	(7.71)
Married	0.02833***	0.02788***	0.03323**	0.03326**	0.05203***	0.05198***
	(4.18)	(4.11)	(3.22)	(3.23)	(5.92)	(5.91)
Number of Children	-0.004030***	-0.004290***	-0.003194**	-0.004033***	-0.006731***	-0.007324***
	(-5.27)	(-5.58)	(-3.25)	(-4.06)	(-7.11)	(-7.64)
Urban	0.3595***	0.3594***	0.4406***	0.4390***	0.4146***	0.4141***
	(106.26)	(106.20)	(99.09)	(98.61)	(91.98)	(91.84)
South	0.1125***	0.1124***	0.04330***	0.04263***	0.1143***	0.1138***
	(18.38)	(18.37)	(7.87)	(7.75)	(14.18)	(14.12)
Estimated YSM	--	0.01149	--	0.1287**	--	0.05815**
		(0.54)		(2.81)		(2.71)
Estimated YSM^2	--	-0.0003709	--	-0.003547**	--	-0.001467**
		(-0.69)		(-3.03)		(-2.91)
Constant	2.8074***	2.7003***	2.7997***	1.6674***	2.8289***	2.2954***
	(162.26)	(14.14)	(97.63)	(4.10)	(118.41)	(11.79)
Samp. Size	37,635	37,635	25,410	25,410	30,045	30,045
R^2	0.126	0.126	0.203	0.204	0.162	0.163

Table B-6 cont.

(B) 1860 Observations used in Longitudinal Sample continued			
	Canada	Mexico	All Other Countries
	(7)	(8)	(9)
EXP	0.001030	-0.01260	0.004391
	(0.37)	(-0.22)	(1.44)
EXPSQ	-0.00005763	0.0001812	-0.00008864*
	(-1.47)	(0.20)	(-2.16)
Literate	0.04132**	0.2837	0.1106***
	(2.98)	(1.56)	(3.94)
Married	0.08005***	-0.1668	0.01788
	(3.68)	(-0.81)	(0.84)
Number of Children	-0.01275***	0.01122	-0.002981
	(-5.75)	(0.29)	(-1.27)
Urban	0.3529***	0.3033	0.4833***
	(27.17)	(1.45)	(41.41)
South	0.1214***	0.1327	0.1392***
	(3.48)	(0.79)	(9.86)
Constant	2.8176***	2.8495**	2.6625***
	(59.17)	(3.10)	(43.54)
Samp. Size	5,217	28	4,756
R^2	0.150	0.316	0.307

Table B-6 continued

(C) 1850-1860 Changes in Longitudinal Sample

	Ireland		Germany		Great Britain	
	(1)	(2)	(3)	(4)	(5)	(6)
Change in Experience	0.002248	0.001620	0.002452	0.001982	-0.0008886	-0.001069
	(1.42)	(1.02)	(0.88)	(0.71)	(-0.25)	(-0.31)
Change in EXP^2	-0.0001260$^{\#}$	-0.0001064	-0.0001812	-0.0001715	0.000004910	0.00001065
	(-1.67)	(-1.41)	(-1.36)	(-1.29)	(0.03)	(0.06)
Illiterate in 1850, Literate in 1860	0.01089$^{\#}$	0.01040$^{\#}$	0.001871	0.001424	-0.03942***	-0.03955***
	(1.96)	(1.87)	(0.12)	(0.09)	(-3.43)	(-3.44)
Literate in 1850, Illiterate in 1860	-0.03478***	-0.03557***	-0.02503	-0.02517	-0.04961***	-0.04949***
	(-5.56)	(-5.69)	(-1.48)	(-1.48)	(-3.68)	(-3.67)
Married in 1850, Nonmarried in 1860	0.004179	0.004901	0.005077	0.005661	0.004009	0.004235
	(0.51)	(0.60)	(0.41)	(0.46)	(0.38)	(0.40)
Nonmarried in 1850, Married in 1860	-0.004283	-0.004305	0.003059	-0.004359	0.02012$^{\#}$	0.01837
	(-0.41)	(-0.41)	(0.27)	(-0.38)	(1.77)	(1.61)
Number of Children	0.0008713	-0.0009725	-0.001197	-0.002685**	-0.002118**	-0.002697**
	(1.35)	(-1.28)	(-1.42)	(-2.69)	(-2.64)	(-2.80)
Urban in 1850, Rural in 1860	-0.1636***	-0.1642***	-0.1939***	-0.1953***	-0.1374***	-0.1378***
	(-19.97)	(-20.04)	(-21.07)	(-21.22)	(-15.17)	(-15.19)
Rural in 1850, Urban in 1860	0.07751***	0.07648***	0.09080***	0.08988***	0.09440***	0.09410***
	(13.13)	(12.95)	(11.49)	(11.37)	(14.05)	(13.98)
South in 1850, Non-South in 1860	-0.1183***	-0.1181***	-0.05114**	-0.05271**	-0.06816*	-0.06777*
	(-5.01)	(-5.01)	(-2.66)	(-2.74)	(-2.45)	(-2.43)
Non-South in 1850, South in 1860	-0.02368	-0.02354	0.004240	0.004093	-0.01444	-0.01404
	(-1.07)	(-1.06)	(0.19)	(0.19)	(-0.66)	(-0.64)
Estimated YSM	--	-0.05547***	--	-0.09244***	--	-0.02083
		(-3.83)		(-3.54)		(-1.61)
Estimated YSM^2	--	0.001364***	--	0.002378***	--	0.0004985
		(-7.67)		(3.44)		(1.57)
Constant	-0.01973*	0.5337***	-0.02073	0.8681***	-0.01141	0.2016
	(-2.22)	(3.86)	(-1.27)	(3.55)	(-0.60)	(1.54)
Samp. Size	37,635	37,635	25,410	25,410	30,045	30,045
R^2	0.018	0.019	0.025	0.026	0.016	0.017

Table B-6 cont.

(C) 1850-1860 Changes in Longitudinal Sample continued

	Canada	Mexico	All Other Countries
	(7)	(8)	(9)
Change in Experience	-0.003468	0.2893#	-0.002552
	(-0.40)	(2.08)	(-0.26)
Change in EXP^2	0.0001613	-0.01250#	0.0001519
	(0.40)	(-1.98)	(0.32)
Illiterate in 1850, Literate in 1860	-0.009895	-0.1598	0.01050
	(-0.56)	(-0.54)	(0.43)
Literate in 1850, Illiterate in 1860	-0.03683#	-0.3299	-0.01614
	(-1.95)	(-0.67)	(-0.52)
Married in 1850, Nonmarried in 1860	0.002335	0.2947	-0.03429
	(0.09)	(0.64)	(-1.34)
Nonmarried in 1850, Married in 1860	0.03137	-0.3608	-0.01098
	(1.39)	(-1.49)	(-0.48)
Number of Children	0.001603	-0.05469	-0.0002963
	(0.90)	(-1.59)	(-0.15)
Urban in 1850, Rural in 1860	-0.09502**	0.5516	-0.1493***
	(-3.28)	(0.84)	(-5.30)
Rural in 1850, Urban in 1860	0.03167	-0.5699*	0.06669***
	(1.62)	(-2.36)	(3.37)
South in 1850, Non-South in 1860	0.2635*	0	-0.1113#
	(2.47)	(.)	(-1.76)
Non-South in 1850, South in 1860	0.01852	0	0.1208#
	(0.26)	(.)	(1.75)
Constant	-0.007803	-1.4222#	-0.01125
	(-0.16)	(-2.08)	(-0.22)
Samp. Size	5217	28	4756
R^2	0.005	0.478	0.011

Notes: All Other Countries excludes Great Britain, Germany, Ireland, Mexico, and Canada. OLS regressions in which the dependent variable is a natural logarithm of the measure of occupational attainment (OccInc). t-ratios in parentheses, # $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Source: Minnesota Population Center (2021, 2023).

Table B-7

Analysis of Socioeconomic Index (SEI) of Foreign-Born White Men, Age 20 and Over, By Foreign Origin, 1850-1860 Linked Sample

(A) 1850 Observations used in Longitudinal Sample

	Ireland		Germany		Great Britain	
	(1)	(2)	(3)	(4)	(5)	(6)
EXP	0.009795***	0.008499**	0.006427***	0.002695	0.009149***	0.01325***
	(6.68)	(3.21)	(3.47)	(0.75)	(5.90)	(4.54)
EXPSQ	-0.0001055***	-0.00008921*	-0.0001581***	-0.00008610#	-0.0001392***	-0.0001785***
	(-4.17)	(-2.49)	(-4.64)	(-1.66)	(-5.21)	(-4.55)
Literate	0.3353***	0.3353***	0.2401***	0.2393***	0.2920***	0.2919***
	(37.21)	(37.19)	(9.42)	(9.39)	(16.69)	(16.69)
Married	-0.02563#	-0.02641#	0.006642	-0.002114	0.02170	0.01920
	(-1.77)	(-1.81)	(0.39)	(-0.12)	(1.46)	(1.29)
Number of Children	0.004205*	0.004188*	0.003933#	0.004308*	-0.005178**	-0.005187**
	(2.53)	(2.52)	(1.93)	(2.12)	(-3.05)	(-3.05)
Urban	0.1188***	0.1189***	0.3110***	0.3098***	0.3632***	0.3630***
	(18.67)	(18.67)	(40.71)	(40.56)	(48.20)	(48.17)
South	0.3016***	0.3016***	0.09802***	0.09731***	0.2276***	0.2272***
	(26.06)	(26.06)	(10.51)	(10.44)	(17.21)	(17.19)
Estimated YSM	--	0.01872	--	0.1212**	--	-0.02003
		(0.74)		(2.71)		(-0.94)
Estimated YSM^2	--	-0.0009374	--	-0.007115**	--	0.0006338
		(-0.76)		(-3.08)		(0.69)
Constant	2.1218***	2.0588***	2.4072***	1.9715***	2.3241***	2.3790***
	(94.41)	(23.78)	(69.97)	(12.37)	(86.56)	(30.57)
Samp. Size	37,635	37,635	25,410	25,410	30,045	30,045
R^2	0.068	0.068	0.078	0.079	0.097	0.097

Table B-7 cont.

(A) 1850 Observations used in Longitudinal Sample continued			
	Canada	Mexico	All Other Countries
	(7)	(8)	(9)
EXP	0.02155***	0.04306	0.01459***
	(6.65)	(0.53)	(3.71)
EXPSQ	-0.0003474***	-0.0001096	-0.0002437***
	(-5.88)	(-0.06)	(-3.56)
Literate	0.3073***	0.7954*	0.2007***
	(16.35)	(2.72)	(5.46)
Married	0.02011	-0.2374	-0.02433
	(0.71)	(-0.61)	(-0.77)
Number of Children	-0.02538***	-0.009296	-0.003891
	(-6.99)	(-0.09)	(-0.89)
Urban	0.2728***	0.06139	0.4521***
	(14.03)	(0.10)	(24.22)
South	0.2284***	-0.4417	0.3395***
	(4.47)	(-1.36)	(15.61)
Constant	2.2021***	2.0798*	2.4068***
	(54.47)	(2.43)	(40.12)
Samp. Size	5,217	28	4,756
R^2	0.111	0.577	0.171

Table B-7 continued

(B) 1860 Observations used in Longitudinal Sample						
	Ireland		Germany		Great Britain	
	(1)	(2)	(3)	(4)	(5)	(6)
EXP	0.005247**	0.004631#	-0.001375	-0.0001772	0.001986	-0.001003
	(2.88)	(1.80)	(-0.58)	(-0.05)	(1.04)	(-0.32)
EXPSQ	-0.00004195#	-0.00003641	-0.000008075	-0.000007719	-0.00003770	-0.000003121
	(-1.72)	(-1.23)	(-0.24)	(-0.17)	(-1.49)	(-0.09)
Literate	0.3606***	0.3605***	0.2106***	0.2093***	0.3251***	0.3246***
	(35.37)	(35.35)	(7.24)	(7.20)	(16.07)	(16.04)
Married	-0.01332	-0.01336	0.04142*	0.04152*	0.06567***	0.06576***
	(-0.98)	(-0.98)	(2.28)	(2.29)	(4.48)	(4.48)
Number of Children	0.003475*	0.003479*	0.008688***	0.007703***	-0.003396*	-0.003871*
	(2.27)	(2.26)	(5.02)	(4.40)	(-2.15)	(-2.42)
Urban	0.1855***	0.1855***	0.3958***	0.3938***	0.4274***	0.4269***
	(27.43)	(27.42)	(50.54)	(50.21)	(56.85)	(56.76)
South	0.2730***	0.2730***	0.08267***	0.08200***	0.1925***	0.1920***
	(22.31)	(22.31)	(8.53)	(8.46)	(14.31)	(14.28)
Estimated YSM	--	0.01211	--	0.08513	--	0.07093*
		(0.28)		(1.05)		(1.98)
Estimated YSM^2	--	-0.0002927	--	-0.002507	--	-0.001735*
		(-0.27)		(-1.21)		(-2.06)
Constant	2.1695***	2.0622***	2.4985***	1.7535*	2.3791***	1.7339***
	(62.72)	(5.40)	(49.47)	(2.45)	(59.71)	(5.34)
Samp. Size	37,635	37,635	25,410	25,410	30,045	30,045
R^2	0.066	0.066	0.106	0.107	0.118	0.118

Table B-7 cont.

(B) 1860 Observations used in Longitudinal Sample continued			
	Canada	Mexico	All Other Countries
	(7)	(8)	(9)
EXP	0.008245*	-0.01705	0.002384
	(1.98)	(-0.19)	(0.49)
EXPSQ	-0.0001548**	0.0005742	-0.00004991
	(-2.62)	(0.42)	(-0.76)
Literate	0.3200***	0.7442*	0.1939***
	(15.28)	(2.71)	(4.30)
Married	0.09971**	-0.2862	0.04342
	(3.04)	(-0.92)	(1.27)
Number of Children	-0.01558***	-0.01330	0.002044
	(-4.65)	(-0.23)	(0.54)
Urban	0.3169***	0.4146	0.5210***
	(16.16)	(1.31)	(27.77)
South	0.2516***	0.1821	0.2536***
	(4.78)	(0.71)	(11.17)
Constant	2.2881***	2.4490#	2.5054***
	(31.83)	(1.77)	(25.48)
Samp. Size	5,217	28	4,756
R^2	0.111	0.524	0.184

Table B-7 continued

(C) 1850-1860 Changes in Longitudinal Sample

	Ireland		Germany		Great Britain	
	(1)	(2)	(3)	(4)	(5)	(6)
Change in Experience	0.0007534	-0.001067	0.01140*	0.01012*	0.006331	0.005014
	(0.24)	(-0.33)	(2.31)	(2.05)	(1.01)	(0.80)
Change in EXP^2	0.000009565	0.00006054	-0.0004891*	-0.0004656*	-0.0003484	-0.0003155
	(0.06)	(0.40)	(-2.07)	(-1.97)	(-1.17)	(-1.06)
Illiterate in 1850, Literate in 1860	0.06270***	0.06056***	-0.001662	-0.002312	-0.01644	-0.01701
	(5.58)	(5.39)	(-0.06)	(-0.09)	(-0.80)	(-0.83)
Literate in 1850, Illiterate in 1860	-0.09357***	-0.09638***	-0.05306#	-0.05261#	-0.04625#	-0.04384#
	(-7.39)	(-7.62)	(-1.77)	(-1.75)	(-1.91)	(-1.82)
Married in 1850, Nonmarried in 1860	-0.007301	-0.005561	-0.02109	-0.01983	-0.04050*	-0.03877*
	(-0.44)	(-0.34)	(-0.96)	(-0.90)	(-2.14)	(-2.05)
Nonmarried in 1850, Married in 1860	0.01515	0.01760	0.02896	0.01351	0.01901	0.01550
	(0.71)	(0.83)	(1.43)	(0.66)	(0.93)	(0.76)
Number of Children	0.008140***	0.002091	0.003851**	-0.0002853	0.004047**	-0.001577
	(6.21)	(1.36)	(2.58)	(-0.16)	(2.81)	(-0.92)
Urban in 1850, Rural in 1860	-0.09345***	-0.09591***	-0.1518***	-0.1554***	-0.1292***	-0.1341***
	(-5.64)	(-5.79)	(-9.32)	(-9.54)	(-7.97)	(-8.26)
Rural in 1850, Urban in 1860	0.08419***	0.08066***	0.08598***	0.08349***	0.1450***	0.1412***
	(7.05)	(6.75)	(6.14)	(5.96)	(12.05)	(11.72)
South in 1850, Non-South in 1860	-0.1126*	-0.1124*	-0.001667	-0.005591	-0.06065	-0.06056
	(-2.36)	(-2.36)	(-0.05)	(-0.16)	(-1.22)	(-1.21)
Non-South in 1850, South in 1860	-0.009648	-0.009662	0.02629	0.02518	-0.04754	-0.04842
	(-0.21)	(-0.22)	(0.68)	(0.65)	(-1.21)	(-1.24)
Estimated YSM	--	-0.1190***	--	-0.1818***	--	-0.04710*
		(-4.06)		(-3.94)		(-2.04)
Estimated YSM^2	--	0.002830***	--	0.004600***	--	0.0009762#
		(3.75)		(3.76)		(1.72)
Constant	0.06860***	1.2947***	-0.01428	1.7628***	0.02874	0.5769*
	(3.81)	(4.63)	(-0.50)	(4.07)	(0.84)	(2.47)
Samp. Size	37,635	37,635	25,410	25,410	30,045	30,045
R^2	0.006	0.008	0.006	0.007	0.008	0.009

Table B-7 cont.

(C) 1850-1860 Changes in Longitudinal Sample continued	Canada (7)	Mexico (8)	All Other Countries (9)
Change in Experience	-0.01472	0.2664	0.009248
	(-1.08)	(1.15)	(0.57)
Change in EXP^2	0.0005234	-0.01059	-0.0004487
	(0.82)	(-1.01)	(-0.57)
Illiterate in 1850, Literate in 1860	0.02926	-0.2303	-0.01515
	(1.06)	(-0.47)	(-0.38)
Literate in 1850, Illiterate in 1860	-0.02926	-0.3199	-0.007768
	(-0.98)	(-0.39)	(-0.15)
Married in 1850, Nonmarried in 1860	-0.02156	0.3196	-0.1181**
	(-0.51)	(0.42)	(-2.78)
Nonmarried in 1850, Married in 1860	0.06172#	-0.3200	0.01363
	(1.74)	(-0.79)	(0.36)
Number of Children	0.01065***	0.003440	0.002336
	(3.78)	(0.06)	(0.70)
Urban in 1850, Rural in 1860	0.04409	-0.4447	-0.09884*
	(0.97)	(-0.41)	(-2.12)
Rural in 1850, Urban in 1860	0.02425	-0.6429	0.04632
	(0.78)	(-1.61)	(1.41)
South in 1850, Non-South in 1860	0.06423	0	-0.1468
	(0.38)	(.)	(-1.40)
Non-South in 1850, South in 1860	-0.07137	0	0.1439
	(-0.63)	(.)	(1.26)
Constant	0.1166	-1.2789	-0.01024
	(1.56)	(-1.12)	(-0.12)
Samp. Size	5,217	28	4,756
R^2	0.005	0.219	0.004

Notes to Table B-7: All Other Countries excludes Great Britain, Germany, Ireland, Mexico, and Canada. OLS regressions in which the dependent variable is a natural logarithm of the measure of occupational attainment (SEI). t-ratios in parentheses, # $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Source: Minnesota Population Center (2021, 2023).

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