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Constrained occupational pathways: Historical ethnic penalties in career mobility among Japanese immigrants in the United States, 1920–1940

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ABSTRACT

Racial and ethnic stratification was a persistent feature of the early 20th-century U.S. labor market. While acknowledging structural barriers such as organized exclusion, studies of Japanese immigrants have typically emphasized their upward mobility from laborers to independent farmers or small-business owners before World War II. Yet, few studies have examined how such barriers shaped Japanese mobility relative to that of contemporaneous immigrants from Europe, as well as Canada and Mexico. Using linked 1920–1940 U.S. census panel data, this study compares occupational mobility between first-generation Japanese immigrant men (born 1881–1900) and other immigrants by educational attainment. Findings indicate substantial ethnic occupational penalties for Japanese immigrants, particularly pronounced at higher levels of education, where they ranked below even their similarly educated Mexican counterparts. Whereas European and Canadian immigrants frequently ascended into managerial, professional, and skilled or semi-skilled blue-collar occupations, upward mobility among Japanese immigrants remained largely confined to small-business ownership and farming. Such an absence from mid-tier occupations is consistent with historically documented patterns of organized exclusion from labor unions and labor market discrimination. Additional analyses align with constrained occupational pathways as a major channel of the Japanese immigrants' economic disadvantage: within the same detailed occupations, salaried Japanese immigrants faced only modest observed wage penalties relative to U.S.-born Whites. Overall, my findings qualify optimistic narratives about first-generation Japanese immigrants by foregrounding the institutional constraints that structured their career mobility.

1. Introduction

The ideals of the "American Dream" have symbolized the promise of unlimited economic opportunities for immigrants coming into the United States. Yet, historically, not all immigrant groups began from the same starting point upon entering the country, nor was economic advancement equally accessible to all. Studies of early 20th-century U.S. mobility underscore persistent stratification and distinct mobility patterns by groups. Immigrants from Northern and Western Europe typically started at more advantageous positions upon entering the U.S., followed by those from Southern and Eastern Europe (White and Mullen, 2016). While most European immigrants experienced upward mobility at rates similar to native-born Whites (Abramitzky et al., 2014), Mexican immigrants entered

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the U.S. labor market with below-average positions and experienced further downward mobility (Escamilla-Guerrero et al., 2021).

Absent from this broader comparative discussion is the experience of Japanese immigrants, despite their historical significance as one of the earliest and largest Asian American groups in the early 20th-century United States. Existing scholarship has generally highlighted the upward occupational mobility of these initial waves of Japanese immigrants, transitioning from laborers to small-business owners or independent farmers before the onset of World War II (Bonacich and Modell, 1980; Daniels, 1988; Woodrum et al., 1980). Such mobility has often been attributed to their pre-migration social status or educational attainment, ethnic community resources, and/or cultural norms inherited from their homeland (Kihara, 2022; Kitano, 1974; Light, 1972; Suzuki, 2002; Woodrum et al., 1980).

Yet, this narrative must be contextualized within broader structural forces that limited their occupational advancement. The first-generation Japanese immigrants encountered severe institutional barriers, including exclusion from citizenship, land ownership restrictions, and, most importantly for this paper, organized exclusion from labor unions that were increasingly influential at that time (internment beginning in 1942 is beyond the scope of this paper). While considerable research has focused on second- and later-generation Japanese Americans who predominantly entered the labor market after World War II and are often portrayed as examples of socioeconomic "success" or "model minority," surpassing or on par with their U.S.-born White peers (Hirschman and Wong, 1984, 1986; Kihara, 2024; Kim and Kim, 2026; Sakamoto et al., 2011; Sakamoto et al., 2000; Tian, 2023:chap.1; Varon, 1967), little systematic attention has been paid to the economic mobility trajectories of first-generation Japanese immigrants, particularly within comparative contexts involving other immigrant groups at the time.

Addressing this gap is crucial, as first-generation Japanese immigrants' occupational mobility offers an opportunity to understand the racial and ethnic stratification in the early 20th-century U.S. labor market. If, despite the significant labor market barriers, Japanese immigrants indeed achieved upward mobility relative to other immigrants, it would lend support to the narrative of the "American Dream," where individual or community resources enabled immigrants to move upward. On the other hand, limited mobility would highlight the strength of institutional constraints and clarify the magnitude of barriers faced by the historical Japanese immigrants in the continental U.S.[1]

Using longitudinal panel data derived from full-count U.S. decennial census data 1920–1940, I examine intragenerational mobility among Japanese immigrant men born between 1881 and 1900 and compare their mobility to that of European, Canadian, and Mexican immigrant counterparts, as well as native-born Whites in the U.S. To preview, pooled OLS analyses show that, when compared at the same levels of education, first-generation Japanese immigrants faced ethnic occupational penalties,[2] especially pronounced at higher levels of education, where they ranked below their similarly educated Mexican counterparts. Occupational transition matrices between 1920 and 1940 further illustrate that the limited intragenerational progress is consistent with *constrained occupational pathways* for upward mobility, which have been documented by historians. While White immigrants advanced to managerial, professional, skilled craftsmen, or semi-skilled operative occupations, Japanese often started as low-income laborers, and their pathway up was restricted to small-business ownership and independent farming. An additional wage analysis of salaried Japanese immigrants (those outside the self-employment sector) points in the same direction: once workers are compared within the same detailed occupations, observed wage gaps relative to native-born Whites largely disappear for the less educated and shrink by more than half for the highly educated. These results collectively suggest that occupational segregation was a central channel of economic disadvantage among Japanese immigrants in the early 20th-century United States.

2. Background

2.1. Upward economic mobility of Japanese immigrants

In the wake of the Chinese Exclusion Act, Japanese immigrant men began arriving in large numbers on the West Coast as young laborers, farmers, or student-laborers, with their migration peaking in the early 1900s (Ichioka, 1988; Kihara, 2022). While many initially saw themselves as temporary migrants, numerous individuals ultimately settled long-term (Modell, 1971). Existing scholarship has emphasized the upward occupational mobility of these first-generation Japanese immigrants before World War II (Bonacich and Modell, 1980; Daniels, 1988; Higgs, 1978; Jiobu, 1988; Woodrum et al., 1980). Historian Roger Daniels (1988:163) succinctly summarizes as follows:

> "Although some Issei [i.e., first-generation Japanese immigrants] bachelors and others remained below or near the poverty line, by the eve of Pearl Harbor, most Issei families were at least mildly prosperous members of the lower-middle class. These families owned real property—farms and businesses—to a much greater degree than the general population."

Retrospective occupational data collected from a sample of elderly Japanese immigrants in the 1960s Japanese American Research Project (JARP) confirm this clear pattern of upward mobility (Woodrum et al., 1980:1238): upon their arrival at the turn of the 20th century, approximately 80% were concentrated in low-status occupations such as farm labor, non-farm labor, or private household

[1] This paper does not examine the Japanese population in Hawaii. The historical experiences of Japanese in Hawaii and those in the continental United States warrant separate analysis (Kihara, 2022, 2024) and the full-count census data released by IPUMS do not include Hawaii at the time of this writing.

[2] Throughout the paper, "ethnic occupational penalty" refers descriptively to conditional origin-group differences in occupational standing, rather than to a causal estimate of discrimination.

service workers. By 1932–1941, however, this proportion had declined to 20.4%, reflecting their progression into middle-class occupations prior to internment. As Woodrum et al. (1980) document, an important aspect of Japanese economic mobility was a shift into small-business ownership or independent farming. The proportion of "proprietors, managers, and officials" increased from 3.5% at arrival to 30.2% in the 1930s, and the share of "farm managers, owners, and tenants" increased from 3.5% to 36.8%.

Japanese immigrants' upward mobility has often been attributed to strong ethnic community resources facilitating economic opportunities, and to distinct cultural norms and values emphasizing work and effort (Bonacich and Modell, 1980; Kitano, 1974; Light, 1972). Moreover, others have pointed out pre-migration socioeconomic backgrounds: According to Kihara (2022), Japanese migrants experienced positive socioeconomic selection, with many immigrants originating from rural middle strata in Japan possessing above-average education levels compared to their non-migrant peers.[3] Analyses of War Relocation Authority internment records and the Japanese American Research Project survey both show that first-generation Japanese immigrants with more pre-migration education, or from better-off families (i.e., larger farm size, higher-status fathers), attained higher-status occupations in the prewar U.S. (Suzuki, 2002; Woodrum et al., 1980).

2.2. The structural barriers: organized exclusion, discrimination and labor market segmentation

These individual and community assets, however, operated within a highly restrictive institutional environment. Throughout the decades preceding their wartime internment in 1942, Japanese immigrants faced pervasive legal, social, and economic discrimination. While restrictions on land ownership (in some states) and denial of naturalization rights imposed strong legal constraints, exclusion from organized labor played a key role in constraining Japanese upward occupational mobility through skilled blue-collar occupations. The dominant labor organization during this era was the American Federation of Labor (AFL), founded in 1886. Under founder and president Samuel Gompers, AFL supported federal-level policies such as the U.S.-Japan Gentlemen's Agreement, which significantly restricted migration from Japan. Prominent AFL-affiliated labor leaders, many of whom were first-generation European immigrants, also founded the Japanese and Korean Exclusion League (later renamed the Asiatic Exclusion League) in San Francisco in 1905 (Daniels, 1962:28; Foner, 1964:270–71).

As the gatekeeper to many of the skilled blue-collar occupations, AFL's exclusionary policies limited occupational opportunities for Japanese immigrants. Entry into the skilled trades often began with apprenticeships. Yet, many AFL unions "severely limited the number of apprentices and gave preference in constitutional provisions to sons of members in selecting apprentices" (Foner, 1964:279), thus reinforcing immigrant exclusion. Although immigrants, in general, faced such discrimination, the AFL showed "particularly vicious" hostility towards Asians (Foner, 1964:268). For instance, in a 1903 strike involving an organized group of Mexican and Japanese workers near Oxnard, California, the AFL demanded the explicit exclusion of Japanese members as a condition for their AFL affiliation (see Foner, 1964:276–77; Ichioka, 1988:96–102). This exclusion did not mean that the Japanese could turn to non-unionized semi-skilled or white-collar work, since, in the context of a heavily organized workforce on the West Coast, anti-Japanese agitation meant that, as Daniels observes, "no significant number of Issei [first-generation immigrants] were ever hired by white firms for factory or office work" (Daniels, 1962:11).

As theories of ethnic economy and middleman minorities (both of which developed partially based on the Japanese American experience) would predict, in such conditions, those seeking upward mobility would use ethnic-community resources and select into small-business ownership, as proprietorship depended less on majority-controlled opportunities or resources. In the case of Japanese immigrants, while U.S. banks were reluctant to lend them capital, they could rely on *tanomoshi*, or rotating credit associations, often organized through *kenjin-kai* (home community prefectural association) networks, and could recruit employees from within the ethnic community (Bonacich, 1973; Bonacich and Modell, 1980; Light, 1972). Farming was also a strong option, since a substantial share originated from rural Japan, carrying agricultural skills and aspirations for independent land cultivation (see Azuma, 2005:28; Ichioka, 1988:148). The exclusionary forces likely produced a divided trajectory among the Japanese between those with ethnic-community and/or family resources who moved upward and those without such resources who remained engaged in non-unionized low-wage labor.

Both racial prejudice and economic conditions described by sociologists as a "split labor market" were likely at work in excluding the Japanese. According to Bonacich (1972), splits in the labor market typically arise because economically advantaged groups seek to preserve their higher wages and occupational privileges by excluding cheaper labor identified along ethnic and racial lines. Understanding Japanese immigrants' upward mobility experiences in the context of these structural barriers, whether shaped by racial and/or economic motives, becomes critical when comparing their mobility with contemporaneous European and Mexican immigrant groups.

2.3. Mobility of European and Mexican immigrants during the Age of Mass Migration

Japanese immigration to the United States occurred alongside large-scale immigration from Europe, which has received greater scholarly attention regarding socioeconomic mobility. While early writings on this issue, including the infamous yet canonical *1911 United States Immigration Commission Reports* (the "Dillingham Report") (U.S. Immigration Commission, 1911a), emphasized the low economic status and limited mobility of the "new" immigrants from Southern and Eastern Europe compared to the "old" Western

[3] This selection was non-linear in that college-educated individuals were less likely to migrate than those with secondary school education (Kihara, 2022).

European groups, some subsequent literature suggested rapid upward mobility and convergence (e.g., Hatton, 1997; Minns, 2000).

More recent studies, however, provide nuance to this view, highlighting persistent but varied mobility patterns (Abramitzky et al., 2014; Alba and Nee, 2003; Catron, 2016; Escamilla-Guerrero et al., 2021; White and Mullen, 2016; Witteveen and Hossain, 2026). Analyzing pooled 1900–1930 U.S. decennial censuses, White and Mullen (2016) studied the occupational mobility of European groups who arrived between 1880 and 1919, which coincided with the peak of Japanese immigration. They found that origin group differences were evident early in first-generation immigrants' U.S. labor market careers and persisted throughout: Jewish and Northern and Western European immigrants held distinct advantages over their Southern and Eastern European counterparts. Similarly, using linked 1900–1920 census data, Abramitzky et al. (2014) found that immigrants' relative economic positions changed very little after entry, and on average, they stayed in a very similar economic position relative to their native-born White counterparts. They argued that cross-sectional analyses tend to overstate upward mobility due to negative socioeconomic selection in return migration and declining immigration cohort quality. Focusing on intergenerational mobility over the same period, Diaz and Lee (2023) study variation among early 20th-century European-origin families. They find that mobility largely conformed to classical assimilation rather than the segmented assimilation pattern found among post-1965 immigrants, with downward mobility trajectories observed primarily among German-origin children following World War I-era xenophobia.

Mexican immigrants were also an important part of the turn-of-the-20th-century immigration to the U.S. Studying several arrival cohorts of Mexican immigrants during the Age of Mass Migration using linked 1910–1940 census data, Escamilla-Guerrero et al. (2021) presented evidence for downward mobility. According to their estimates, Mexican immigrants were already far below the native-born Whites or Italian immigrants in imputed earnings at their entry into the U.S. labor market, and the gap increased because Mexican immigrants fell further down the income ladder. Crucially, the authors argue that Mexican disadvantage was not due to low human capital or geographic sorting, but because of "Mexican-specific barriers" such as targeted discrimination and occupational segregation into unskilled work. Studying the Mexican-specific barrier further, Catron et al. (2024) find that darker skin tone as recorded in the immigration records predicts negative outcomes for Mexican-origin immigrants during this period, but these negative effects are only found in states where racialization of Mexicans was institutionalized. One of the core institutionalization processes, as was also documented in the Japanese case, was exclusion enforced by the AFL and also naturalization barriers (Catron et al., 2024:1382). While the Japanese were categorically barred from naturalization as a group deemed non-White by law, Mexicans were "White by law" and formally eligible, yet were often treated as non-White in practice (Fox and Bloemraad, 2015). Furthermore, Boyd (2023) examines this marginalization from the perspective of European immigrant entrepreneurship during the early 20th century, arguing that White immigrants in locations with larger Mexican populations moved up the social ladder by leveraging the marginalized Mexican consumer market.

2.4. *Comparing Japanese against European and Mexican immigrants*

Despite the overlapping time frames of Japanese, European, and Mexican immigration, systematic comparisons of their economic mobility remain limited. Studies of Japanese immigrants have typically analyzed this group in isolation (Bonacich and Modell, 1980; Suzuki, 1995; Woodrum et al., 1980), partly because scholarship on Japanese immigrants has developed separately from the research on European and Mexican mobility reviewed above. Among the few large-scale comparative studies is the aforementioned 1911 *U.S. Immigration Commission Reports* (U.S. Immigration Commission, 1911b), which devoted three separate volumes to Japanese immigrants. Capturing the early years of the Japanese immigrants' careers in the U.S., the Reports depict the Japanese as working alongside European and Mexican immigrants in the same industries or occupations, despite generally possessing higher levels of education or literacy.[4]

Modern comparative evidence remains scarce and largely cross-sectional. Comparing Japanese and White immigrants in the 1900, 1920, and 1940 U.S. censuses, Suzuki (2002:256–58) finds that while Japanese immigrants' occupational standing was significantly lower than that of White immigrants in 1900, it increased rapidly and had caught up by 1940. However, as Suzuki himself acknowledged, this catch-up does not necessarily indicate stronger upward mobility of the Japanese: the average educational level of Japanese immigrants was higher than that of European immigrants (Suzuki, 2002:264–66), and less successful Japanese immigrants may have returned to Japan at higher rates (Suzuki, 1995). Cross-sectional data alone cannot distinguish between the catch-up interpretation and alternative explanations: as noted above, repeated cross-sections conflate the mobility of those who stayed with compositional change driven by return migration (Abramitzky et al., 2014), and they do not follow individuals with comparable educational attainment over time. A fuller assessment of comparative economic mobility requires following Japanese immigrants who settled in the U.S. long term, in direct comparison with other immigrants who arrived during the same period, with educational attainment taken into account.

[4] According to U.S. Immigration Commission (1911b:30–33), 90.3% of male wage-earners (n = 10,864) and 72.3% of self-owned businesspersons (n = 1312) were in the U.S. for less than 10 years at the time of their survey. The Reports state that the Japanese stood out due to a large proportion of them having studied basic English grammar in high schools prior to migration (U.S. Immigration Commission, 1911b:145–66).

3. Data and methods

3.1. Analysis plan

The aim of the analysis is to examine Japanese intragenerational mobility within the broader context of immigrant mobility in the early 20th century. While previous studies (e.g., Cooper, 2003) used native-born Whites as a reference group to analyze immigrant labor market outcomes, it would be more appropriate to also compare them with immigrants of similar age groups who arrived in the U.S. during comparable periods (e.g., White and Mullen, 2016). This paper therefore utilizes linked-census panel data that follow the same immigrants from 1920 to 1940 and analyzes them by origin group and education.

3.2. Data: linked U.S. decennial census panel 1920–1940

The present paper uses a linked panel dataset of immigrant men[5] born between 1881 and 1900 who migrated to the United States between 1900 and 1920 at the age of 17 or older. A 3% sample of U.S.-born Whites whose parents were also U.S.-born is included as a supplementary reference group. Data were obtained from the IPUMS full-count U.S. decennial censuses of 1920 and 1940 (Ruggles et al., 2024), with person-level links[6] obtained through the Census Linking Project (Abramitzky et al., 2022). Following the literature on census linking (Abramitzky et al., 2014, 2022), inverse probability weights were generated and applied to account for selection into the linked census panel. Details on weights and results from alternative linking strategies are discussed later in the robustness-check section and in Online Appendices A and C.

The main immigrant panel consists of working-age men (between 20 and 39 years old in 1920 and between 40 and 59 years old in 1940) with a valid occupation in both census years. Although birth and migration cohort restrictions limit the scope of the analysis to those who migrated toward the end of the Age of Mass Migration, this dataset is appropriate for use in the analysis of prewar Japanese immigrants because their migration was concentrated during this period (Kihara, 2022:2582), and their labor market experience was mostly accrued between the beginning of the 20th century and 1940.

3.3. Variables and measures

This study employs two occupation-based measures to examine economic standing and career trajectories and, as an additional analysis, one wage-based measure to assess economic standing within the same occupation.

3.3.1. Outcome 1: percentile rank of adjusted occupational score

To systematically compare occupational outcomes across groups and over time, I employ the percentile rank of the occupational score ("OCCSCORE") in the IPUMS dataset as a continuous measure of economic standing in both 1920 and 1940. Commonly used in historical immigration studies (e.g., Abramitzky et al., 2014; Catron, 2020; Suzuki, 2002; Ward, 2020), this measure proxies for economic status by imputing the median 1950 income for each three-digit occupation, addressing the lack of full-population income data prior to 1950.

Because the standard occupational score does not consider perquisites (e.g., room and board) that were very common in agricultural occupations, I apply the perquisite multipliers by Collins and Wanamaker (2022), which they infer from 1950s U.S. Department of Agriculture statistics. Specifically, I upgrade the farm laborer score by 26%, the farm owner and tenant score by 43%, and the farm manager score by 34% for both 1920 and 1940.[7] Following this adjustment, I convert the scores into percentile ranks using the distribution of men in the 1881–1900 birth cohort, in the pooled full-count 1920 and 1940 censuses, observed at ages 20–39 in 1920 and 40–59 in 1940.[8] This transformation creates a fixed occupational hierarchy across the two decades, meaning that observed changes in an individual's rank reflect actual occupational mobility rather than shifts in the underlying occupational distribution between census years. Finally, to check the sensitivity of my results to these agricultural adjustments, I conduct parallel analyses for the full sample as well as for the sample excluding those who were ever farmers.

[5] Except for the 3% U.S.-born White reference sample, members of the native-born population and those whose country of birth did not match their parental country of birth were dropped from the sample.

[6] The three major census-linking datasets are the Census Linking Project (CLP: Abramitzky et al., 2022), the IPUMS Multigenerational Longitudinal Panel (MLP: Helgertz et al., 2022), and the Census Tree Project (CTP: Buckles et al., 2025). As the main specification, I use phonetic linkage from the CLP, which uses a deterministic algorithm to match individuals based on their phonetically standardized first and last names, birthplace, and age. The online appendix replicates the analysis using the CLP's exact-name links, its more conservative variant, as well as the CTP, which provides the highest coverage.

[7] These numbers are reported in the online appendix to Collins and Wanamaker's article (pp. 11–12) and applied in their publicly available replication code (Collins and Wanamaker, 2022). Unadjusted analysis (i.e., without the Collins and Wanamaker upgrade) is presented in Online Appendix B4.

[8] The percentile rank of the adjusted occupational score is computed as the percentage of this reference population with an adjusted score at or below a given value (i.e., the empirical CDF). Wage ranks (Outcome 3) use the same convention. Sensitivity analyses using midranks change estimated group differences by at most about two percentile points and typically by less than half a point, without altering the substantive comparisons or conclusions. The replication package includes a script that re-estimates the main-text rank-based results using midranks.

3.3.2. Outcome 2: occupational categories

Another measure is census occupation categories. In this variable, seven (relatively homogeneous) broad occupation categories in 1920 and 1940 are aggregated from 253 three-digit level occupations in the census: 1) Managerial occupations, 2) Professional and technical occupations, 3) Craftsmen, 4) Clerical and sales occupations, 5) Operatives, 6) Farmers, and 7) Labor and service occupations.

3.3.3. Outcome 3: percentile rank of wages

Outcomes 1 and 2 are both *occupational* measures. While useful, these measures cannot capture within-occupation heterogeneity in economic standing. To address this limitation, I conduct an additional wage analysis using 1940 census data for salaried workers (i.e., men reporting positive wage and salary income). Paralleling the occupational score analysis, I convert these wages into percentile ranks. Because wage information was not collected in 1920, this analysis relies on the unlinked, cross-sectional full-count 1940 census.

3.3.4. Origin groups

I classify the sample into country-of-birth and ethnic origin categories (hereafter, "origin groups"). Origin is determined primarily by country of birth, where the countries of birth of the individual and parents had to match for the individual to be included in the sample. Japanese immigrants were thus defined as individuals born in Japan whose fathers and mothers were also born in Japan. Countries or regions that were well represented in the full sample of immigrants, i.e., Canada, Britain (England, Wales, and Scotland), Germany, Ireland, Italy, and Poland, were classified individually, whereas countries that contributed only small shares were classified collectively as Scandinavian countries, Other North and Western (Other NW) Europe and Other Southern, Central and Eastern (Other SCE) Europe. Hebrew or Yiddish speakers in 1920 (the majority were from Russia) were separately classified as Jewish, following earlier work (White and Mullen, 2016). All other immigrants (approximately 2.2% of the immigrants) are classified as "Other immigrants".[9] Table 1 lists the origin groups and their sample sizes.[10]

Origin categories were further consolidated for cross-tabulation and wage analyses: Jewish, Canadian, Northern and Western (NW) European (Britain, Germany, Ireland, Scandinavian, and Other NW Europe), Southern, Central and Eastern (SCE) European (Italy, Poland, and Other SCE Europe), Japanese, Mexican and "Other immigrants," plus U.S.-born Whites.

3.3.5. Educational levels

Education is classified to capture the heterogeneity in schooling level in this historical context: Lower levels of primary schooling (0–4 years of education), upper levels of primary schooling (5–8 years of education), some high school or high school graduate (9 to 12 years of education), and some college or college graduate (13 or more years of education).[11] As indicated in Table 1, the levels of education differed significantly across origin groups. Given that migrants in the sample arrived in the United States at age 17 or older, most schooling through high school was likely completed in their countries of origin, although some may have completed part or all of their college education in the United States.

3.3.6. Control variables

To account for the differences in age structure and years of exposure to the U.S. labor market, I include birth cohort (1881–1885, 1886–1890, 1891–1895, 1896–1900) and years of U.S. residence prior to entering the panel in 1920, categorized as 15 or more years (migration cohort 1900–1905 and U.S.-born Whites), 10–14 years (migration cohort 1906–1910), 5–9 years (migration cohort 1911–1915), and 0–4 years (migration cohort 1916–1920) as covariates. Further, an alternative specification adds county fixed effects, based on each individual's county of residence in the given census year (3088 counties in all), to account for local economic conditions and the geographic sorting of immigrants that could influence mobility patterns (Abramitzky et al., 2014, 2021).

3.4. Statistical analysis

3.4.1. Analysis 1: pooled OLS

Using panel data, I first estimated the occupational score percentile rank mobility between 1920 and 1940 by the following Equation (1), in which i denotes individual migrant, t denotes the census year (1920 = 0, 1940 = 1), β_1 is a coefficient for origin groups by educational level (i.e., a combined category of education and origin group), β_2 is a coefficient for the census year dummy (1920 = 0, 1940 = 1), β_3 is a coefficient for the interaction term between immigrant origin by educational level and the census year. δ_b denotes birth cohort dummies and κ_a denotes arrival cohort dummies.

[9] Among immigrants classified in the "Other" category, those from West Indies, Syria, Turkey or China are the majority. For the birth/arrival cohort in question, there were *fewer* Chinese than Japanese immigrants because of the 1882 Chinese Exclusion Act. The Chinese also had much lower levels of education, and it was not possible to obtain large enough sample size to accurately estimate their mobility by educational level.

[10] Additional wage analysis that uses unlinked 1940 full-count census relies only on the place of birth and mother tongue information from 1940 (for Jewish immigrants) to define origin groups.

[11] The 1920 census recorded school attendance but not educational attainment, so education is measured in 1940 and treated as a time-invariant individual characteristic in both census years. This assumption likely holds for most men: in the linked sample, which includes only men aged 20–39 in 1920 with a reported occupation in both years, 0.9 percent of men (2.7 percent of the Japanese) were recorded as attending school in 1920.

Table 1
Descriptive statistics (age 20–39 in 1920 and 40–59 in 1940).

Panel A: Socioeconomic Variables

Groups	Adj. OccScore (Pct Rank)				Adj. OccScore (Pct Rank, nonfarm)				Wage (PctRank)		Educational attainment			
	1920		1940		1920		1940		1940		Primary (0-4yrs)	Primary (5-8 yrs)	HS (9-12 yrs)	College (13+ yrs)
Jewish	65	(25)	68	(27)	65	(25)	68	(27)	57	(26)	0.42	0.44	0.10	0.04
Canada	59	(26)	61	(27)	60	(26)	62	(27)	56	(27)	0.11	0.53	0.25	0.10
Britain	61	(25)	61	(27)	63	(25)	62	(27)	60	(25)	0.04	0.58	0.29	0.10
Ireland	58	(26)	57	(28)	59	(26)	57	(28)	58	(25)	0.09	0.70	0.16	0.05
Germany	57	(28)	58	(28)	59	(28)	60	(29)	56	(26)	0.06	0.65	0.20	0.09
Scandinavia	51	(26)	54	(26)	54	(27)	57	(28)	53	(27)	0.12	0.71	0.13	0.04
Other NW Europe	50	(26)	52	(27)	52	(27)	54	(29)	51	(26)	0.24	0.57	0.14	0.05
Poland	49	(23)	52	(25)	49	(24)	53	(26)	46	(23)	0.57	0.38	0.04	0.01
Italy	46	(26)	49	(28)	46	(26)	49	(28)	44	(22)	0.58	0.36	0.04	0.01
Other SCE Europe	50	(27)	52	(29)	51	(27)	53	(30)	49	(25)	0.39	0.49	0.09	0.03
Japan	**35**	**(30)**	**38**	**(34)**	**35**	**(35)**	**37**	**(38)**	**42**	**(23)**	**0.16**	**0.43**	**0.32**	**0.08**
Mexico	31	(22)	32	(27)	31	(22)	31	(28)	26	(21)	0.74	0.22	0.04	0.01
Other Immigrants	43	(32)	45	(34)	44	(32)	45	(34)	43	(25)	0.32	0.45	0.16	0.07
U.S.-Born Whites	53	(27)	58	(27)	58	(29)	64	(28)	54	(29)	0.11	0.52	0.26	0.10

Panel B: Demographic Variables

Groups	Birth cohort				Years in U.S. by 1920 (= arrival cohort)				Farmer Share	Unweighted n
	1881-1885	1886-1890	1891-1895	1896-1900	15 yrs+	10–14 yrs	5–9 yrs	0–4 yrs	1920 or 1940	
Jewish	0.31	0.35	0.29	0.06	0.23	0.35	0.39	0.03	0.02	21,488
Canada	0.28	0.28	0.25	0.18	0.18	0.25	0.29	0.28	0.08	14,159
Britain	0.35	0.36	0.23	0.06	0.14	0.38	0.38	0.10	0.06	22,624
Ireland	0.30	0.32	0.28	0.10	0.17	0.34	0.42	0.06	0.03	12,444
Germany	0.32	0.35	0.26	0.07	0.16	0.32	0.47	0.04	0.14	16,459
Scandinavia	0.33	0.33	0.25	0.09	0.27	0.34	0.31	0.08	0.24	27,922
Other NW Europe	0.32	0.37	0.25	0.06	0.17	0.36	0.42	0.06	0.17	20,341
Poland	0.26	0.36	0.33	0.05	0.15	0.35	0.49	0.02	0.06	27,269
Italy	0.30	0.35	0.27	0.08	0.18	0.33	0.44	0.05	0.05	43,015
Other SCE Europe	0.29	0.36	0.29	0.07	0.16	0.34	0.44	0.06	0.10	52,411
Japan	**0.38**	**0.38**	**0.13**	**0.12**	**0.25**	**0.36**	**0.21**	**0.18**	**0.36**	**1,326**
Mexico	0.20	0.26	0.29	0.25	0.04	0.13	0.32	0.51	0.11	7,258
Other Immigrants	0.18	0.28	0.34	0.20	0.09	0.24	0.41	0.26	0.03	6,102
U.S.-Born Whites	0.18	0.24	0.28	0.29	1.00	0	0	0	0.32	63,007

Note: Values in parentheses indicate standard deviations. "Non-farm" reports average percentile ranks for the sample excluding those who were ever farm managers, farm owners, or tenants in 1920 or 1940. All groups, except for U.S.-born Whites, are foreign-born. Results are weighted to account for linkage selection between 1920 and 1940 using weights described in Online Appendix A**.** Salary wage percentile rank is computed from a separate, unlinked full-count 1940 U.S. census dataset, unweighted and only used in the additional analyses.

$$\text{OccPctRank}_{it} = \alpha + \beta_1 \textit{Origin_Educ}_i + \beta_2 \textit{Year}_t + \beta_3 \textit{Origin_Educ}_i \times \textit{Year}_t + \delta_b + \kappa_a + \epsilon_{it} \quad \text{(Eq. 1)}$$

I then estimate a second specification, Equation (2), that adds θ_c which denotes U.S. county of residence fixed effects to take into account the differences in local labor markets and geographic sorting of immigrants at the county level. Standard errors were clustered at the individual level.

$$\text{OccPctRank}_{it} = \alpha + \beta_1 \textit{Origin_Educ}_i + \beta_2 \textit{Year}_t + \beta_3 \textit{Origin_Educ}_i \times \textit{Year}_t + \delta_b + \kappa_a + \theta_c + \epsilon_{it} \quad \text{(Eq. 2)}$$

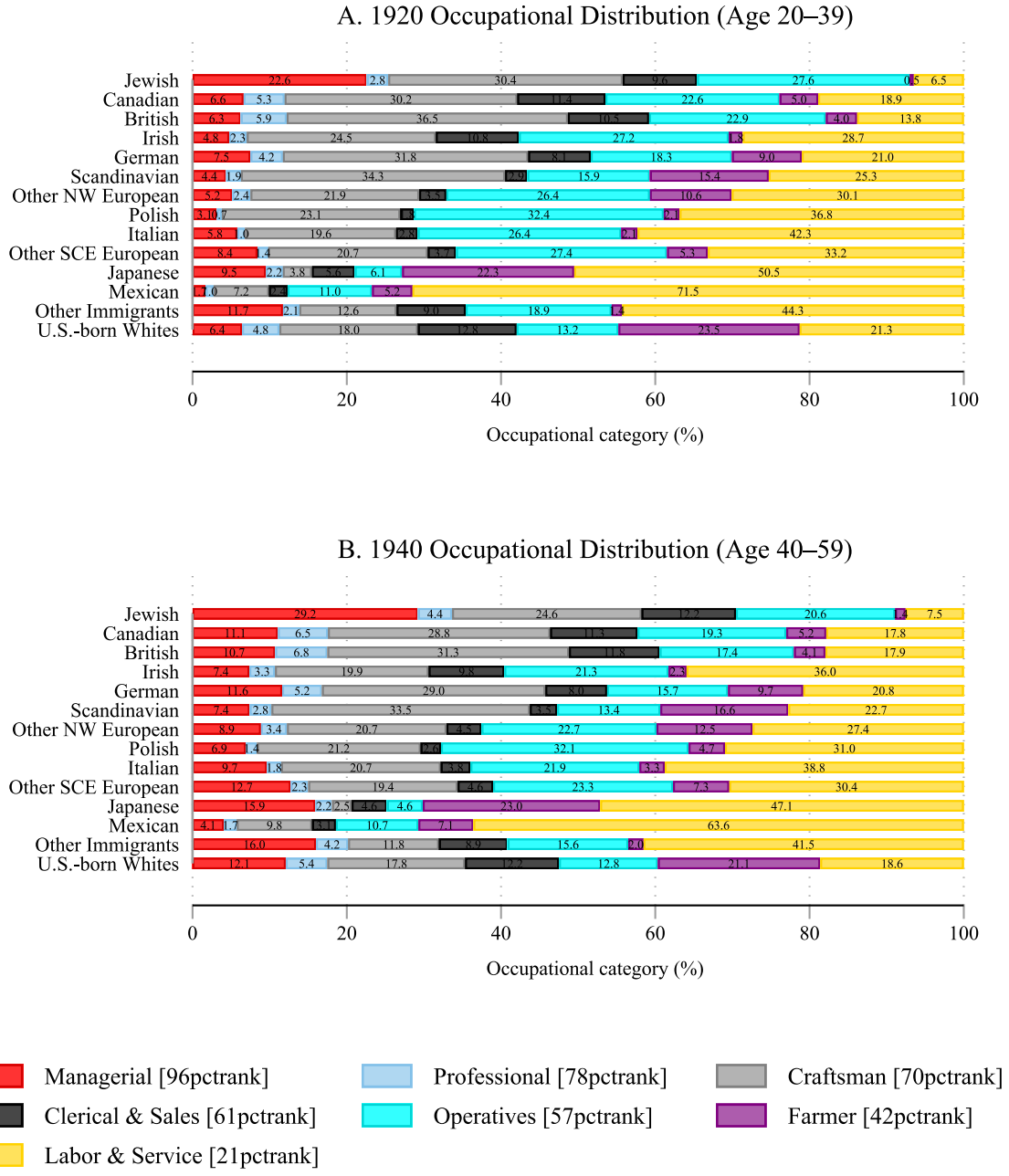


Fig. 1. Broad Occupational Category by Census Year and Group

Note: The figure presents broad occupational classifications by census year and origin (n = 335,825 persons). Bracketed values in the legend represent the mean occupational score percentile rank for occupations within each broad occupational category. All groups except for U.S.-born Whites are foreign-born. Results are weighted to account for linkage selection between 1920 and 1940 using weights described in Online Appendix A.

Since the occupational score percentile rank is constant across the two censuses for the same occupations, any change in the score in the 20 intervening years can be interpreted as a result of changes in occupations, net of the covariates in the respective models. To facilitate interpretation, rather than showing the regression outputs as tables, I calculated the predicted score for each origin group by educational level in 1920 and 1940, holding other variables as observed, and prepared graphical representations of the levels and changes. I also reestimated the same models using a sample excluding those who were ever farmers (i.e., farm owners, tenants, or managers).

3.4.2. Analysis 2: occupational transition matrices

Using panel data and the seven larger occupational categories, transition matrices (cross tabulations) of 1920 occupations and 1940 occupations were generated, stratified by origin and education. Such transition matrices complement the pooled OLS by revealing the allocational mechanism behind the aggregate patterns, that is, by showing which occupations were available for upward mobility within each group. To facilitate interpretation, origin groups were consolidated as Jewish, Canadian, NW European, SCE European, Japanese, Mexican, Other immigrants and U.S.-born Whites. Education was also aggregated, with the "less educated" being those with primary education or less (up to 8 years of schooling) and the "more educated" being those with at least some high school education or more (9+ years of schooling).

4. Results

4.1. Descriptive statistics

Table 1 presents descriptive statistics. For both occupational percentile ranks, including and excluding farmers in 1920 and 1940, the Japanese came close to the bottom of the hierarchy, only above Mexican immigrants and slightly behind Italians, Poles, and other immigrants from SCE Europe. The Japanese occupational disadvantage is particularly striking given their relatively high educational attainment: Eight percent of Japanese immigrants had a college education, and 40% of Japanese immigrants had at least some high school education (including those with college). This proportion of high school-educated immigrants was highest among all groups in this study, including native-born Whites.

Fig. 1A and 1B present the distribution of broad census occupational categories in 1920 and 1940 by origin groups. From the two figures, it is clear that the disadvantage of the Japanese in Table 1 is driven by their concentration in labor and service occupations. In 1940, for instance, approximately 47% of Japanese immigrant men were employed in labor and service occupations, compared to 21% of Germans and 39% of Italians. Another unique feature of the Japanese is their relative absence from blue-collar occupations with middle-range occupational score percentile ranks, such as craftsmen and operatives. In 1940, 29% and 16% of Germans and 21% and 22% of Italians were craftsmen and operatives, respectively, whereas just 3% and 5% of Japanese immigrants were in these occupation categories.

Japanese immigrants were overrepresented in managerial occupations. In 1940, 16% of Japanese immigrant men held managerial occupations, compared to 12% of Germans and 10% of Italians. These Japanese were predominantly self-employed small-business owners (Bonacich and Modell, 1980) and formed the core of the Japanese ethnic economy on the West Coast. Online Appendix Figure B1 shows that, among the origin groups in this study, Japanese had one of the highest self-employment rates.

4.2. Pooled OLS results

How did the Japanese economic standing fare against that of other immigrants at similar levels of education? Although the descriptive statistics make it clear that the Japanese are ranked low, we do not know, for example, whether *all* Japanese were at a disadvantage or whether Japanese at a certain level of skill faced a significant disadvantage. Furthermore, since there are differences in birth and arrival cohorts and regional distribution by origin groups, it is important to account for these factors.

Fig. 2 presents the predicted occupational score values from estimates derived by running pooled OLS regressions. Panel A reports the baseline specification in Equation (1), while Panel B presents the specification in Equation (2) that includes county of residence fixed effects. Fig. 3 repeats this comparison excluding those who were ever farmers to understand how sensitive the results are to the farmer category. In both figures, arrows indicate the direction of mobility in percentile ranks between 1920 and 1940. Since the men in the sample were born between 1881 and 1900, they were in their early-to-mid careers (20–39 years old) in 1920 and in their mid-to-late careers (40–59 years old) in 1940. Because Fig. 2 (full sample) and Fig. 3 (never farmer sample), and Panels A (no county FE) and B (with county FE) within each figure, present a relatively similar pattern in ranking by groups, the following description of results focuses on Fig. 2 Panel A.

4.2.1. Initial economic standing in the U.S. labor market: 1920 occupational score PctRank

By comparing groups at the same education level, it was possible to describe the ethnic occupational penalty at each level of education in 1920. At higher levels of education, Japanese immigrants occupied substantially lower economic positions than most other origin groups. College-educated Japanese immigrants in 1920 held occupations that ranked lower than those of their college-educated peers from all other groups. Similarly, Japanese immigrants with a high school education fell behind all other comparably educated immigrant groups. Among the less educated (0–4 and 5–8 years), Japanese immigrants ranked at or near the bottom of the occupational distribution, alongside Mexican immigrants.

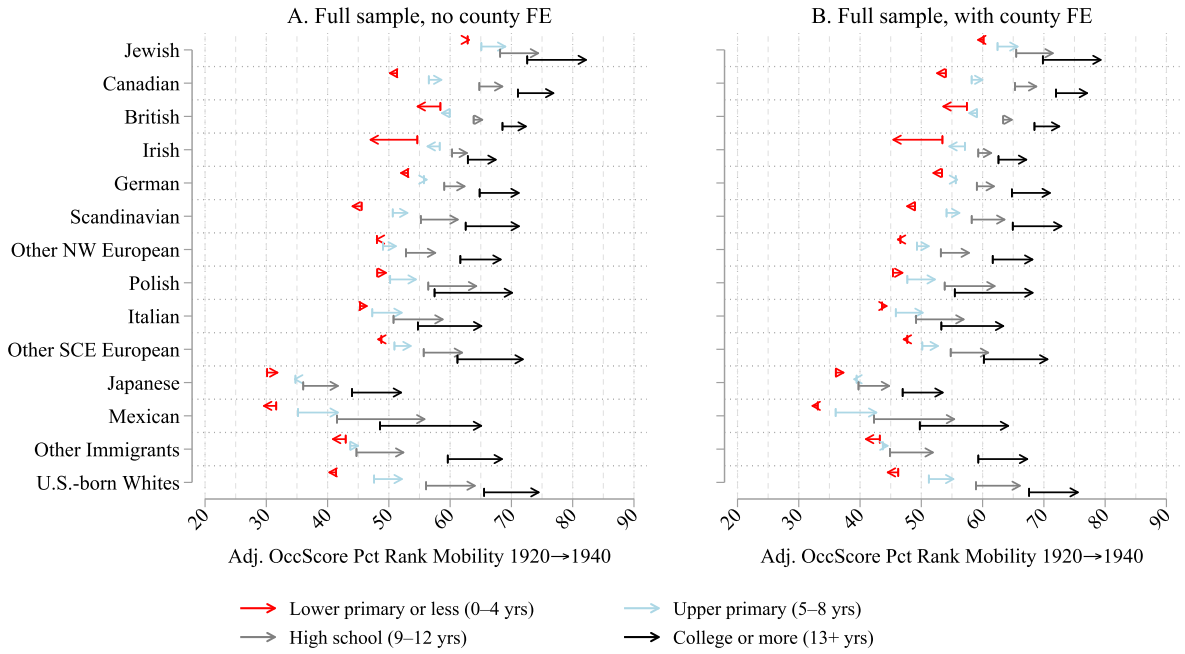


Fig. 2. Occupational Score Percentile Rank Mobility 1920–1940 by Origin and Education, Full Sample
Note: The figure presents predicted occupational score percentile ranks in 1920 and 1940 by origin and education for the entire sample (n = 671,650 person-years). Panel A reports baseline estimates and Panel B reports estimates that add county of residence fixed effects. All groups except U.S.-born Whites are foreign-born. Results are weighted to account for linkage selection between 1920 and 1940 using weights described in Online Appendix A. 95% confidence intervals for point estimates are reported in Online Appendix B2, while results from analysis using unadjusted occ-scores are presented in Online Appendix B4.

4.2.2. Trajectories in the U.S. labor market: mobility between 1920 and 1940

Mobility patterns from 1920 to 1940 varied consistently by educational attainment across immigrant groups. Immigrants with lower education levels (0–4 or 5–8 years of schooling) generally experienced stagnation or (slight) downward mobility in occupational score rankings. In contrast, those with higher education levels (high school and college graduates) typically moved upward. The Japanese are no exception to this general pattern. However, compared to European immigrants or U.S.-born Whites, the Japanese immigrants appeared to receive relatively lower returns to education in terms of their 20-year mobility. Many European immigrants with high school or college education, such as Poles or Italians, initially occupied relatively lower economic positions given their education, but subsequently experienced substantial upward mobility. This mobility helped narrow the occupational gap with similarly educated immigrants from Northern and Western European countries or U.S.-born Whites by 1940. In contrast, educated Japanese immigrants achieved only modest gains, causing the percentile rank gap between them and similarly educated peers from other origin groups, including Mexican immigrants, to widen.[12]

Due to their disadvantaged initial positions in 1920, stagnant mobility among less educated individuals, and limited upward mobility among more educated individuals between 1920 and 1940, the relative occupational position of Japanese immigrants in 1940 had deteriorated compared to other immigrant groups.

4.3. Occupational transition matrix results

While the previous pooled OLS analyses provide a useful comparative overview, the continuous percentile rank measure aggregates information across occupational categories into a single numerical score and cannot reveal which specific occupational paths were open or closed for each origin group. A categorical examination using transition matrices in which I cross-tabulate 1920 and 1940 occupations addresses this gap. Fig. 4 presents occupational transition matrices by origin group. The sample is aggregated into eight simplified groups for clearer comparison: Jewish, Canadian, NW European, SCE European, Japanese, Mexican, and Other immigrants, with U.S.-born Whites included for supplementary reference. Panel A displays occupational mobility for less-educated immigrants (0–8

[12] Gaps favoring Mexicans are statistically significant ($p < .05$) by 1940 for both the college- and high-school-educated Japanese–Mexican comparisons, and already at the high-school level in 1920 (in the specification without county fixed effects). See Online Appendix B2 for details.

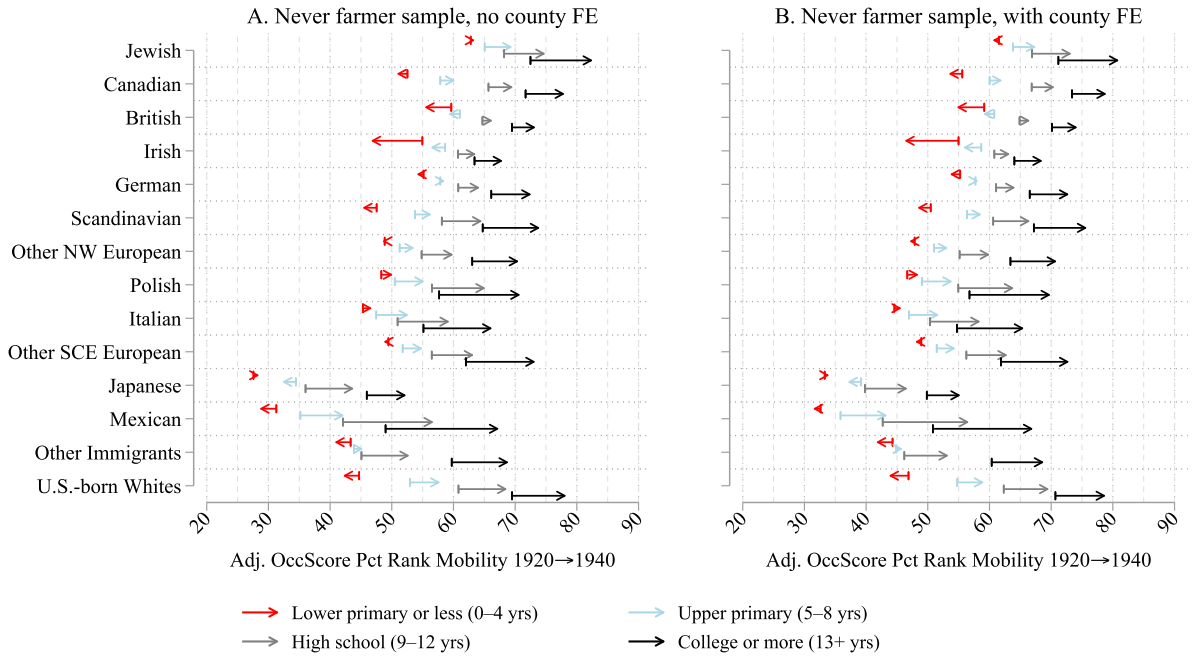


Fig. 3. Occupational Score Percentile Rank Mobility 1920–1940 by Origin and Education, Never Farmer Sample
Note: The figure presents predicted occupational score percentile ranks in 1920 and 1940 by origin and education for the sample excluding those who were ever farm managers, farm owners, or tenants (n = 575,624 person-years). Panel A reports baseline estimates and Panel B reports estimates that add county of residence fixed effects. All groups except U.S.-born Whites are foreign-born. Results are weighted to account for linkage selection between 1920 and 1940 using weights described in Online Appendix A. 95% confidence intervals for point estimates are reported in Online Appendix B3.

years of primary schooling), while Panel B shows mobility for more-educated immigrants (high school or college). The figures indicate row percentages, representing the proportion of individuals within each occupational category in 1920 transitioning to specific occupational categories by 1940. Due to the partition of each origin-education group into 7-row by 7-column cells, the rates in thinly populated cells should be read with their cell sizes in mind. The central comparisons I draw on for interpretation concern transitions out of labor and service occupations, the largest 1920 occupational category among the Japanese. Online Appendix B5 reports the number of observations behind every cell of the Japanese matrices, the same matrices under an alternative census linkage with a larger sample size, and confidence intervals for the key transition rates.

4.3.1. Mobility matrices for the less educated

The transition matrices in Fig. 4A visualize the pattern of stagnant mobility among the less educated that was discovered using regression analyses presented in Fig. 2. At the bottom end of the occupational hierarchy (i.e., labor and service), there is considerable immobility for all groups, but especially for the most disadvantaged Japanese and Mexican immigrants: 59% and 69% of immigrants from Japan and Mexico in labor and service occupations in 1920 remained in labor and service occupations in 1940 (Column 7, Row 7, Fig. 4A).

Among the less educated immigrants, a major way of achieving upward mobility from labor and service occupations was to transition to occupations categorized as operatives, with craftsman occupations also serving as a significant avenue for advancement (these occupations represent semi-skilled and skilled blue-collar jobs). However, for Japanese, these paths were constrained and narrow: For example, among those who were in labor and service occupations in 1920, only 5% transitioned to operatives, while the corresponding figures are 17% for Jewish, 22.5% for Canadian, 18% for NW European, 23% for SCE European, 10% for Mexican, 14% for Other immigrants, and 15% for U.S.-born Whites (Column 5, Row 7, Fig. 4A). A similar disparity is observed in the transition to craftsmen occupations. Only 1.4% of Japanese immigrants moved from labor and service occupations into craftsmen roles, whereas other origin groups experienced higher transition rates, ranging from 7.4% among Other immigrants to 21% among Canadians (Fig. 4A, Column 3, Row 7).

From the transition matrices, I also observed patterns that were not obvious from the regression analysis. Among the less educated Japanese immigrants, there was a high rate of downward mobility into labor and service occupations between 1920 and 1940 from other occupations (Column 7, Rows 1–6, Fig. 4A). Mexican immigrants also exhibited a similar trend. However, compared to Mexican immigrants, less educated Japanese demonstrated notable mobility into managerial (Column 1, Fig. 4A) and farming occupations

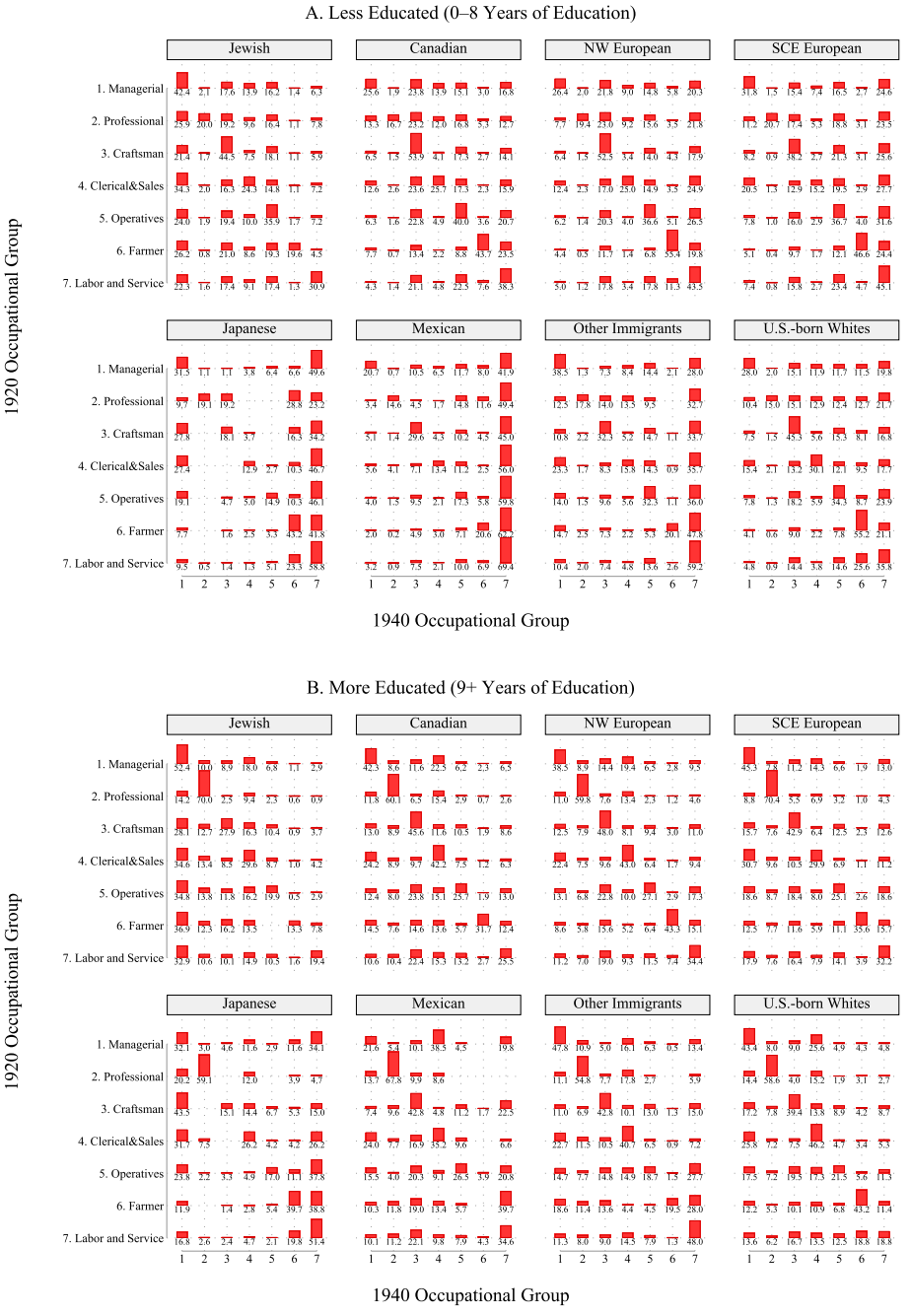


Fig. 4. Occupational Transition Matrices 1920–1940 by Origin and Education

Note: Figures show occupational transition matrices by origin and education, where NW European refers to Northern and Western European immigrants, and SCE European refers to Southern, Central, and Eastern European immigrants. All groups, except U.S.-born Whites, are foreign-born. Cells display transition rates (i.e., row percentages), indicating the proportion of individuals in each occupational category in 1920 who transitioned into specific occupational categories by 1940. Panel A: n = 265,491; Panel B: n = 70,334. Results are weighted to account for linkage selection between 1920 and 1940 using weights described in Online Appendix A. Underlying cell counts are reported in Online Appendix B5.

(Column 6, Fig. 4A), especially from labor and service positions. The proportion of Japanese immigrants ascending to managerial positions was higher than that of most other immigrant groups, except for Jewish immigrants.

4.3.2. Mobility matrices for the more educated

Occupational mobility matrices in Fig. 4B further help us to understand the occupational rank mobility behind Fig. 2. Compared to the less educated immigrants in Fig. 4A, there is a general trend toward upward mobility across groups, including the Japanese. More immigrants move up from labor and service to managerial, professional, craftsmen, and sales and clerical occupations (compare Columns 1–4, Fig. 4B to Columns 1–4, Fig. 4A). The Japanese also follow this trend, and they experience stronger upward mobility into managerial occupations compared to most other educated immigrants (except for Jewish immigrants) and their less-educated Japanese immigrant peers.

However, when compared to other immigrants with similarly high levels of education, the more educated Japanese stand out in their lack of upward mobility from labor and service occupations into craftsmen occupations: While 10% of Jewish, 22% of Canadian, 19% of NW European, 16% of SCE European, 22% of Mexican, 9% of Other immigrants, and 17% of U.S.-born White laborers/service workers in 1920 transitioned to craftsmen occupations in 1940, the corresponding figure for the Japanese is just 2.4% (Column 3, Row 7, Fig. 4B). Additionally, educated Japanese immigrants experienced downward mobility into labor and service occupations at substantially higher rates than Jewish, Canadian, and European immigrants, comparable to Mexican immigrants (Column 7, Rows 1–6, Fig. 4B).

4.4. Additional analysis: examining salary wages with occupation fixed effects

In the preceding analyses, occupation-based measures revealed how Japanese immigrants were funneled into a narrow set of occupational pathways. While providing a novel insight, this approach masks whether Japanese immigrants faced economic penalties *within* specific occupations since the same occupations were assigned identical occupational ranks or categories. To address this, I conduct an additional analysis using wage data from the 1940 census. Because wage information was not collected in 1920, this exercise focuses on wage levels in mid- or late-career rather than wage mobility over time.

I estimate two regression models using the unlinked full-count 1940 census to alleviate concerns about selection in linking and to maximize sample size. The dependent variable is the percentile rank of annual wage income within the national distribution for men born between 1881 and 1900 (i.e., restricted to ages 40 to 59) to align with the preceding panel data analysis. The base model (Eq. (3)) controls for birth cohort (δ_b) and county fixed effects (θ_c) and can be written as follows, where β_1 captures the wage gap between origin-by-education categories, ceteris paribus.

$$\text{WagePctRank}_{i1940} = \alpha + \beta_1 \mathit{Origin_Educ}_i + \delta_b + \theta_c + \epsilon_i \quad \text{(Eq. 3)}$$

The occupation fixed-effects model (Eq. (4)) adds fixed effects for 213 three-digit occupations (λ_o) observed in the salaried sample to compare workers who share the same occupations. The coefficient of interest β_1 captures any residual gap between different groups with the same levels of education, holding occupation (λ_o), county of residence (θ_c), and birth cohort (δ_b) constant. Formally, the model is written as follows:

$$\text{WagePctRank}_{i1940} = \alpha + \beta_1 \mathit{Origin_Educ}_i + \delta_b + \theta_c + \lambda_o + \epsilon_i \quad \text{(Eq. 4)}$$

Importantly, the above wage analyses necessarily focus on the salaried sector, as the 1940 census recorded wage and salary income but not the amount of income from self-employment. While the use of the unlinked full-count census maximizes the analytical sample size (n = 8,848,252 with n = 9766 Japanese), this restriction has differentially affected data availability across origin groups. Given that Japanese and Jewish immigrants were heavily concentrated in entrepreneurship, and Japanese and native-born Whites in independent farming, wage data are zero or missing for larger portions of these groups: Specifically, wages are unavailable for 43.5% of Japanese, 42.2% of Jewish immigrants, and 32.4% of native-born Whites compared to 28.8% of SCE European and 24.0% of NW European immigrants. Despite the need for significant caution in interpretation due to the exclusion of most self-employed men, the occupation-fixed-effects models provide complementary evidence on whether observed wage gaps remain after comparing Japanese immigrants with other workers in the same detailed occupations, an issue my earlier analyses using occupational outcomes could not address.

Fig. 5 presents the predicted differences in percentile ranks of wages for each group relative to U.S.-born Whites (the zero line), comparing the "Base Model" (blue bars) and the model "With Occupation Fixed Effects" (red bars). Since the analysis uses cross-sectional data from the 1940 census, it shows mid- or late-career wage position at ages 40–59, and not wage mobility. The results reveal a pattern of allocational disadvantage for salaried Japanese immigrants. In the “Base Model” (blue), Japanese immigrants face statistically significant wage penalties relative to U.S.-born Whites at all education levels, though the magnitude varies by education. While the wage gap is relatively small for those with primary education, the penalty is substantial for the more educated: secondary and college-educated groups rank up to 20 percentile points below their White counterparts. However, controlling for 213 occupations (red bars), these gaps shrink dramatically. For Japanese immigrants with the lowest levels of education (0–4 years of primary

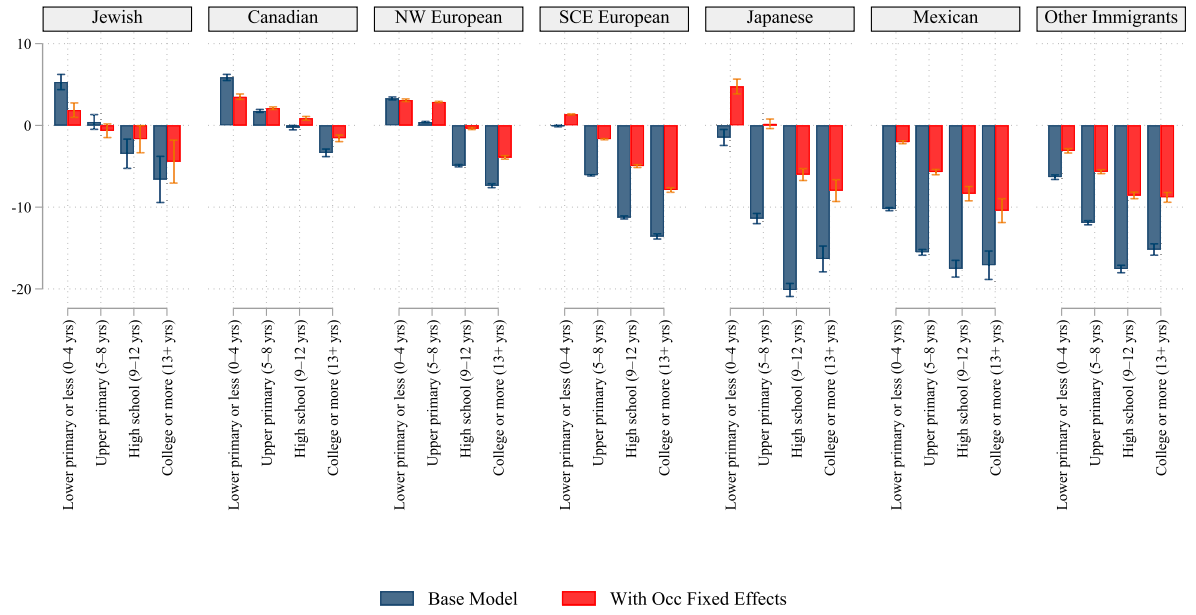


Fig. 5. Predicted Differences in 1940 Wage Percentile Rank Relative to U.S.-Born Whites by Origin and Education
Note: The figure displays predicted differences in 1940 annual wage percentile ranks for salaried immigrant men relative to U.S.-born Whites with 95 percent confidence intervals. The sample uses the unlinked full-count 1940 U.S. Census and is restricted to men aged 40 to 59 to isolate the birth cohort (1881–1900) studied in this paper. The sample sizes for salaried men in each group are: Jewish (n = 6949; in 1940 only the 5 percent on a sample line were asked their mother tongue, which identifies Jewish immigrants), Canadian (n = 130,489), NW European (n = 720,078), SCE European (n = 1,094,002), Japanese (n = 9766), Mexican (n = 57,317), Other immigrants (n = 70,971), and U.S.-born Whites (n = 6,758,680). "Base" Model controls for 5-year birth cohort and county fixed effects; "With Occ Fixed Effects" Model additionally controls for 213 unique three-digit occupation codes.

education), the observed wage gap is eliminated and even reversed, with Japanese workers appearing to earn slightly more than U.S.-born Whites in the same occupations.[13] For educated Japanese immigrants, the large negative penalty is reduced by more than half. This convergence indicates that observed wage penalties among salaried Japanese immigrants were strongly associated with occupational placement. Visually, the attenuation associated with adding occupation fixed effects is especially pronounced for Japanese compared with the European-origin groups. However, due to the possibility that workers observed in particular occupations may be selected based on unobserved ability, these within-occupation comparisons should not be interpreted as ruling out direct wage discrimination against the Japanese.

4.5. Assessing robustness and sensitivity: census linkage quality, alternative links, and regional restriction

To ensure the robustness of the findings, checks to assess and address potential concerns related to census linkage and geographic composition were implemented and are discussed in the Online Appendix. First, to address the concern about potential non-random selection into the linked census data from the Census Linking Project (Abramitzky et al., 2022), I assessed match rates and quality. The overall linkage rate was 20.0% for foreign-born men, with group-specific rates including 21.2% (Germans), 17.3% (Poles), 18.3% (Italians), and 11.8% (Japanese), broadly comparable to prior historical linkage studies (Abramitzky et al., 2014; Catron, 2020; Connor, 2019).[14] Inverse probability weights to account for selection into the linked panel were generated based on observable characteristics, explicitly incorporating interactions between immigrants' origin and sociodemographic characteristics (Online Appendix A1). Matched Japanese immigrants exhibited higher occupational scores than the target census sample, suggesting stronger positive socioeconomic selection into census panel data. After applying inverse probability weights this positive selection becomes very small. Put together, even if any residual selection bias still exists, it would imply that the matched Japanese sample remains positively selected in terms of economic standing, thereby understating, rather than overstating, the true occupational penalties faced by Japanese immigrants (Online Appendix A2).

Second, the primary linking method employs phonetic standardization of names from the CLP (Abramitzky et al., 2022). To assess

[13] This reversal should be interpreted descriptively rather than as evidence of a Japanese wage advantage. I return to this point in the Discussion, drawing on Hsieh et al. (2019).

[14] Recent studies show standard census linking algorithms may underlink populations with certain demographic traits, such as immigrants whose original names used non-Roman scripts (Postel, 2023). See Online Appendix A1 and A2 for further discussion on this issue.

the sensitivity of my results to different types of census matching, I replicated the entire analysis using an alternative, stricter linking method using exact names from CLP (Abramitzky et al., 2022), and conversely, higher coverage links from the Census Tree Project (CTP) using public genealogy inputs and machine learning methods (Buckles et al., 2025; Price et al., 2021; Price et al., 2023). The results remain consistent with the main findings, with one caveat: Analysis using CTP links suggests that the most educated Japanese (those in the top 8% with college education) experienced greater upward mobility compared to estimates derived from either the phonetic or exact-name matching methods from the CLP, although the relative positions of these most educated Japanese against other groups do not change (Online Appendix C).

Finally, given that most Japanese immigrants settled in the Pacific and Mountain States, the linked-panel analyses were replicated using a subsample of men residing in these states in both 1920 and 1940, and the wage analysis using men in these states in 1940. The results confirm that my findings hold even when limited to immigrants who settled in the West (Online Appendix D). Collectively, these robustness checks support the main findings regarding the ethnic penalties and constrained occupational pathways experienced by Japanese immigrants.

5. Discussion and conclusion

Historical studies of immigrant economic mobility underscore persistent social stratification and distinct mobility patterns by groups. These patterns unfolded in the context of organized and broader societal-level exclusion that racialized minority groups faced in gaining entry to occupations, such as the Japanese exclusion from skilled blue-collar occupations by the AFL. Despite this, previous studies have stressed Japanese immigrants' upward mobility before World War II (Bonacich and Modell, 1980; Daniels, 1988; Higgs, 1978; Jiobu, 1988; Woodrum et al., 1980). Previous research also argued that education partly explains upward mobility (Suzuki, 2002; Woodrum et al., 1980). However, the literature lacked a comparative perspective: to qualify Japanese "success," it is necessary to compare it to other immigrants who arrived in the U.S. during the same historical period. By analyzing the 1920–1940 linked U.S. decennial census panel, I studied the occupational mobility of Japanese and other immigrant men. In addition, using a subset of data from 1940, actual wages were analyzed with occupation fixed effects.

My analysis revealed four important, previously masked patterns for the Japanese: First, when examined by education level, Japanese immigrants experienced significantly lower occupational scores early in their observed U.S. labor-market careers. At ages 20 to 39 in 1920, their economic standing was below that of most European-origin groups. While Mexican immigrants also faced ethnic occupational penalties, the Japanese disadvantage was distinctive in its persistence at higher levels of education, where Japanese immigrants fell behind their Mexican counterparts. The primary reason Japanese immigrants appeared more advantaged than Mexicans overall was their substantially higher average educational attainment (see Table 1). Mexican labor migration to the U.S. arose partly in response to the labor shortages created by the 1882 Chinese Exclusion Act and the 1907–08 U.S.-Japan Gentlemen's Agreement (Catron et al., 2024:1379). The exclusion of Japanese and the racialized incorporation of Mexican workers were therefore part of a single labor system, which helps explain why both groups entered the U.S. labor market in similarly constrained positions at the bottom of the occupational distribution. Still, the form of this shared racialization differed: the exclusion of the Japanese was categorical, whereas the treatment of Mexican workers depended more on local institutional contexts and perceived skin tone (Catron et al., 2024; Fox and Bloemraad, 2015).

Second, the occupational mobility path in the early 20th century was missing the "middle" for Japanese immigrants. Japanese immigrants exhibited a distinct mobility pattern characterized by strong movement into farming occupations and bifurcated trajectories, either upward into small-business ownership with the highest occupational scores or downward into labor and service occupations with the lowest. In contrast, other immigrant groups, including, to some extent, Mexicans, had more diverse pathways to upward mobility via professional, skilled blue-collar, or semi-skilled blue-collar occupations with middle-range occupation scores. Fig. 4 makes this missing middle directly visible. For instance, among less-educated Japanese immigrants who held labor and service occupations in 1920, only 1.4% transitioned into craftsmen roles by 1940, compared with 7.4% to 21% for every other origin group; among the more-educated, the corresponding Japanese craftsmen-transition rate is 2.4%, less than half the rate for any comparison group. As discussed earlier, this absence from mid-tier occupations is consistent with the exclusion of the Japanese from labor unions like the AFL, which controlled entry into craftsmen occupations, as well as with White employers' reluctance to hire Japanese for factory or office work (Daniels, 1962; Foner, 1964; Suzuki, 1994). The narrow pathways to upward mobility left to the Japanese were urban proprietorship, which was sustained by ethnic community resources, and farming, drawing on their pre-migration agrarian skills and aspirations (Azuma, 2005; Bonacich and Modell, 1980; Ichioka, 1988).

Third, the Japanese experienced relatively modest occupational returns to education when compared to their European, Canadian, and Mexican counterparts. Even the high school and college educated were more likely than other origin groups to remain in the labor and service occupations across the 20 years. Because the sample is restricted to first-generation immigrants who arrived at age 17 or

older, most were educated in Japan, with some obtaining their college education in the U.S. Although my study design cannot cleanly distinguish structural exclusion from the devaluation of foreign credentials, the historical record points toward the former. Writing contemporaneously in the U.S., Yamato Ichihashi assembles numerous testimonies and other evidence of the difficulty that even U.S.-born, college-educated Japanese faced in finding professional or white-collar work due to exclusion (Ichihashi, 1932:356–63). Since that generation held full U.S. credentials, the barriers they encountered cannot reflect devaluation of degrees.

My results suggest that claims made by Suzuki (2002) and Woodrum et al. (1980),[15] among others, that education was the key to upward mobility among *first-generation* Japanese immigrants might require qualification, although it remains true that educated Japanese immigrants enjoyed better economic mobility outcomes than their less educated counterparts. An extant study indicates that first-generation immigrants' pre-migration education and occupation partially facilitated their second-generation children's upward mobility, along with their cultural background (Kihara, 2024). Recent scholarship further disentangles how these pre-migration backgrounds operate through distinct socioeconomic and cultural channels. On one hand, parents' relatively high education compared with their origin-society peers ("contextual selectivity") accounts for the advantage in the second-generation's attainment of elite credentials, such as university degrees (Kim, 2025:641). On the other hand, even children of parents with low education attained high levels of schooling, which points to the active role of inherited culture from the country of origin (Kihara, 2024; Kim, 2025). Taken together, these findings suggest that pre-migration capital primarily provided *inter-generational* (benefiting subsequent generations) rather than *intra-generational* (benefiting their own generation) advantages due to structural barriers: Because Japanese immigrants were institutionally barred from realizing the economic returns of their own education, the investment of both human and cultural capital into the next generation may have become the primary strategy for status recovery.

Finally, in an additional analysis of salaried workers using occupation fixed effects, the wage penalties observed in the base model were substantially reduced. At lower levels of education, the observed Japanese wage penalty was eliminated and even reversed, while for Japanese with greater levels of education, controlling for occupation reduced the wage gap by half or more. These patterns indicate that observed wage disadvantages among salaried Japanese immigrants become modest when they are compared to native-born Whites within the same occupations. However, these within-occupation estimates should be interpreted descriptively and should not be taken as evidence for the absence of wage discrimination. Hsieh et al. (2019) show that within-occupation wage gaps are unreliable measures of group-specific occupational barriers (including discrimination) when workers sort into occupations based on unobserved occupation-specific ability. If entry into a certain occupation (e.g., machinists) is more difficult for the Japanese due to organized exclusion, the few Japanese who successfully entered that particular occupation may have been positively selected on unobserved ability (e.g., exceptional ability in metalworking). This concern is especially relevant here because my wage sample is additionally selected on being in the salaried sector by excluding most of the self-employed. Thus, the wage results are best read descriptively: they are consistent with the transition analyses and the historical record pointing to occupational allocation as a major channel of Japanese economic disadvantage, although they cannot, on their own, separate the role of occupational allocation from that of within-occupation discrimination.

An important follow-up question is whether the structural barriers encountered by first-generation Japanese immigrants similarly constrained their U.S.-born descendants. Extending the analysis to later generations would enhance generalizability, but most of the U.S.-born second generation were born in the 1910s–1930s, after the Gentlemen's Agreement of 1907–08 curtailed male labor migration while permitting the entry of women, and were only beginning to enter the labor force at the close of my study window. Restricting the analysis to the first generation is therefore the appropriate scope for studying career mobility between 1920 and 1940. The available evidence on the second generation is consistent with my findings: studying second-generation Japanese in 1940, Tian (2023:chap.1) finds similarly low occupational returns to education. Shortly thereafter, the Japanese experienced significant disruption in their economic lives due to wartime collective internment that started in 1942. Even so, Japanese Americans' economic standing subsequently improved. Arellano-Bover (2022) documents long-run earnings gains and greater occupational mobility among former internees in the postwar period, alongside greater geographic mobility. More broadly, improvements in Japanese Americans' occupational standing were evident by 1960 (Varon, 1967). In the decades following the passage of the Civil Rights Act of 1964, which prohibited employment discrimination based on race, the adjusted wage disadvantage of native-born Japanese American men had largely disappeared by 1990 (Sakamoto et al., 2000). At the same time, different forms of economic barriers have emerged in later decades, such as East Asian Americans' exclusion from corporate leadership positions, and warrant further research (Lee et al., 2024; Lu et al., 2020; Zhu, 2024).

Overall, this study challenges the optimistic narrative of Japanese immigrant economic mobility in the early 20th-century U.S. The mobility path towards the "American Dream" for the early cohorts of Japanese immigrants was narrow, lacking critical mid-tier occupational opportunities that were accessible to many other European immigrant groups. Future research should carefully trace the career mobility of Japanese and other immigrant groups in later periods and generations to identify the specific historical and structural forces that hindered or facilitated mobility, thereby providing critical insights into broader processes of ethnic and racial

[15] The discrepancy between my findings and those of earlier studies, particularly Woodrum et al. (1980), which used survey data from the Japanese American Research Project (JARP), likely stems not from representation issues with the JARP but from measurement (and cohort) differences. The JARP data are considered reliable and representative, comparable to census or internment administrative records (e.g., Kihara, 2024; Komisarchik et al., 2022). A more plausible explanation for the discrepancy is in how occupational history information was collected. The JARP survey asked respondents their "principal occupation" in intervals (e.g., 1932-41), whereas the census captured occupations at specific years. This likely makes the JARP more prone to record upward mobility, especially if respondents who oscillated between simple labor and small-business ownership reported the latter.

inequality in the U.S.

Data and code availability statement

The full count 1920 and 1940 U.S. census data (Ruggles et al., 2024) underlying this article were provided by IPUMS (https://usa.ipums.org) with permission. The 1920–1940 record linkages use two publicly available crosswalks, the Census Linking Project crosswalk (Abramitzky et al., 2022) and the Census Tree Project crosswalk (Price et al., 2023). The Stata code required to reproduce the analyses is publicly available in the openICPSR repository at https://doi.org/10.3886/ICPSR314751.V1.

Declaration of generative AI and AI-assisted technologies in the manuscript preparation process

The original version of this manuscript was written in 2022–23 without the use of generative AI tools. In preparing the revised manuscript, the author used Claude and Claude Code to proofread the text for grammar and improve the clarity and phrasing of individual sentences, and to assist with refactoring the replication code, which was also audited using Codex. The author reviewed and edited all AI-assisted content, verified that the refactored code reproduces the results of the original author-written code, and takes full responsibility for the content of the article.

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I have no competing interests to declare or disclose.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ssresearch.2026.103442.

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