The Impact of the Johnson-Reed Act on Filipino Labor Market Outcomes

Andreas B. Vortisch[†]

February 14, 2023

Immigration restrictions to the US are rather modern policies. One of the most significant policy changes, the Johnson-Reed Act of 1924, drastically limited the number of new immigrants per year, especially from Asia. In combination with the Emergency Quota Act of 1921, immigration per country was capped at 2 percent of the respective population in the 1890 census. In this paper, I examine to what extent exemptions from immigration restrictions affected relative labor market outcomes of prior migration cohorts. Using decennial census data, I apply a difference-in-difference estimation, considering that restrictions initially did not apply to the Philippines, then a US territory. My findings indicate that initial immigration restrictions impacted Filipinos, who were exempt from the policy, more severely, highlighting the impact of competition on their economic assimilation. In comparison with other migrants, relative log occupational income scores of Filipinos declined, while their labor force participation and employment status increased. These findings corroborate previous studies that emphasize the relevance of substitutability within and the vulnerability across immigrant cohorts. The effects are particularly strong for the year of 1930 and in California, which coincides with the timing of immigration policies and Filipinos' main destination. Individual panel data analysis partially supports the findings in the cross-sectional evaluation.

1. Introduction

In recent years immigration has become a controversial topic for public and policy debate in the US and the EU. Opinions diverge on whether to restrict immigration by enhancing border security. Likewise, the debate on the paths to entry and citizenship covers almost the whole spectrum of policy initiatives—from open borders to closed doors. For the US this debate is nothing new. A century ago restrictions prevented immigration almost universally. Immigration restrictions are politically motivated, as a result, their economic ramifications are not usually the primary focus, particularly in relationship to previous immigrant cohorts that lack political representation.

My paper attempts to answer the question: Are immigration restrictions more harmful to exempt groups? I focus on the Johnson-Reed Act of 1924, which established quotas permanently, thereby also prohibiting immigration from Asia. The policy did not apply to the Philippines, then a US territory, which serves as the treated group with which the impact of the restrictions can be measured.[1] Only Filipinos did not face barriers to entry for intercontinental migration routes. I argue that this differential treatment at the border increases competition for Filipinos relative to other immigrants. In turn, Filipinos' labor market outcomes are more adversely affected by the immigration restrictions.

This case study can help us understand immigration policies and their impact on prior cohorts of immigrants, in particular among those most similar to recent arrivals. This study's focus on the labor substitution within a narrowly defined immigrant group may be useful to modify future policies. Modern-day exemptions often exist for refugees, highly-skilled workers and students, or family reunifications. The analysis of historical restrictions provides two additional advantages by covering the full foreign-born population and allowing to gauge the long-term consequences.

I use this natural experiment to apply a difference-in-differences analysis of the foreign-born population that considers full-count census data from 1910–1940. I also employ panel data by tracking people across censuses, a novel matching method in this literature. In my analysis, I focus on the relative differences in labor market outcomes (log occupational income score as a proxy for lifetime earnings, employment status, and labor force participation) of the entire foreign-born population in the US. In a separate step, I estimate the policy's impact on California, the main destination of Filipinos.

My results indicate an impact on labor market outcomes for Filipinos, whose immigration remained unrestricted. When compared to other immigrant groups, relative log occupational income scores for Filipinos declined by 0.2 log points or about 22 percent. Likewise, Filipinos' relative employment went up by ca. 7 percentage points and relative labor force participation increased about 10 percentage points. Apart from labor force participation, the effects are more pronounced when looking at previous immigrant cohorts separately from recent arrivals. Moreover, a dynamic estimation approach shows

---

[1]Similar exceptions also applied to citizens of independent countries in the Americas (*non-quota immigrants*), which are in consequence excluded from the analysis below. Note that colonizations were included in the quota of the colonial power.

greater effects in 1930, which is consistent with the timing of immigration policies that also restricted Filipinos in the 1930s.

I test the same hypotheses with individual-level panel data, tracking immigrants over time. Panel estimates show no significant change in either of the variables after the policy changes but align in direction with the cross-sectional estimates and mostly also in size. However, the statistical insignificance may be a consequence of the limited sample size that arises from challenges tracking people across censuses.

The policy impact on Filipinos seems to be particularly strong in California, their major destination within the US. Again, this result suggests that greater competition from incoming immigrants mostly hurts similar incumbents, also in more narrowly defined localities. These implications are robust across several checks.

Taken together, my findings suggest that the Johnson-Reed Act proved to be harmful for exempt Filipinos by pushing them into lower-tier jobs than similar foreign-born. Additionally, Filipinos were more likely to participate in the labor force than previously, perhaps out of sheer necessity to counter the negative impact on occupational standing or because of improved (ethnic) networks.

The main contribution of this paper is an evaluation of unintended, secondary effects of stricter immigration regimes on immigrant workers. The less favorable economic conditions for Filipinos, who compete against new arrivals from their homeland, highlight the importance of substitutability among immigrants, a finding also documented by Ottaviano & Peri (2012). A more direct competition from the same source country translates into stronger in-group substitution. This result may also partially explain the support among modern-day immigrants in the US for more restrictive immigration policies, in particular in border regions.

My estimates also complement the literature on the effect on natives by similar policies in the US, thereby adding to the recently expanding literature on immigration restrictions. Abramitzky et al. (2023) find that the Emergency Quota Act of 1921 decreased earnings for natives in regions, which are more affected by such immigration quotas. For the same policy, population and productivity growth declined, as did marriage and fertility rates for first or second-generation immigrants, especially women. Also, white natives experienced lower earnings, whereas African Americans gained from the restrictions, and so, narrowed the earnings gap (Ager & Hansen, 2017; Xie, 2017). Greenwood & Ward (2015) assess that immigration quotas increased the length of stay and reduced emigration rates. Along the same line, Ward (2017) finds that return migration declined and improved working conditions, especially for those who entered under the policy. For another exclusionary poliy, Long et al. (2022) find a similar impact on the targeted people: remaining Chinese workers were pushed into lower-paying jobs after the 1882 Chinese Exclusion Act. Moreover, white workers seem to have been complements to Chinese ones, because their economic situation declined as well.

Similar to Massey (2016), Xie (2017), and Tabellini (2020), I focus on the Johnson-Reed Act, which had the most comprehensive, binding, and permanent consequences for immigration. Massey (2016) explores the change in the selection of Canadian migrants after the Johnson-Reed Act and assesses increased skill levels among restricted migrants.

Furthermore, Xie (2017) illustrates that wages in manufacturing increased, but that restrictions also discouraged industrial development. Tabellini (2020) finds economic benefits of immigration for natives, even in sectors with large numbers of immigrants employed. Despite these positive economic ramifications, immigration generated political backlash, especially for immigrants with different beliefs and cultures more distant from the native population; examples include Catholics, Jews, and non-English speakers.

This paper also provides new insights into the inflow of immigrants from Asia with the hopes of addressing a literature gap. In particular, I consider the effects on Filipinos, who were exempt from the initial quota acts in the 1920s. Closer cultural proximity, size of immigration, and data availability may explain the relative abundance of research on transatlantic immigration. In comparison to their European and American counterparts, Asian immigrants experience larger costs for migrating. Psychological distress from xenophobia further adds to their social costs (cf. Melendy, 1974). Asian immigrants only started to settle in masses, especially in the West in the early 1900s, thereby differing in their migration patterns and dynamics from European migrants. Results obtained by Massey (2016) indicate that immigration quotas had a more pronounced impact on migrants at the American west coast because changes in selection improved their average skill levels.

My focus on Asian immigration herein may also help to fill a void in the existing literature, and also offers insights into the effects of immigration to the US West. Doing so complements prior research, as markets are emerging, but also because there are differences across regions in migrant flows (Chen, 2015; Massey, 2016). Moreover, as Ward (2017) emphasizes for the Northeast, new arrivals with similar characteristics (prime-aged males) negatively affect residents in local labor markets. A distinct evaluation for Filipinos in California adds to this strand of literature.

This paper also shows differences in labor market outcomes that may be linked to racial discrimination, given the relatively low rate of legal and permanent immigrants, in particular of non-whites. In a similar study, Chen (2015) investigates the impact of the Chinese Exclusion Act of 1882 on the skill levels of restricted and unrestricted immigrants and finds that the average occupational standing of Chinese immigrants declined.

The differential treatment across migration cohorts by the Johnson-Reed Act allows detailed analysis of the long-run effect of the quotas on both the immigrant and native populations. In this sense, immigration from Asia in the early twentieth century is of distinct interest, as the exception for Filipinos was both temporary and contrary to strict anti-Asian measures (cf. Ngai, 1999; Okrent, 2020). Understanding the Filipino experience may offer an opportunity to disentangle racial and ethnic discrimination from anti-immigration policies and the resulting reactions of affected labor market participants in future research.

4

2. Immigration Restrictions to the US in the Early Twentieth Century

2.1. The Path to Restricting Immigration to the US

The Page Act of 1875, banning only Chinese women from entry, and the Chinese Exclusion Act of 1882 were the first major anti-immigration bills signed into law (Chen, 2015; Long et al., 2022). Although nativist rhetoric permeated American politics, immigration remained unrestricted and thus flourished from western and northern Europe throughout the nineteenth century.[2]

Between 1890 and 1920, the share of US residents from these traditional source countries decreased from 80 to 40 percent. Countries located in southern and eastern Europe accounted for larger shares of immigrants than before, which altered the demographics of new immigrants. Their beliefs, but also cultural, linguistic, and socioeconomic differences met staunch opposition from nativist policymakers and the press (Tabellini, 2020).

Prejudicial attitudes of policymakers motivated the implementation of restrictions to enter, driven by a desire to maintain a predominantly white and Protestant population (Higham, 1988; Ngai, 1999; Okrent, 2020; Yang, 2020; Shah, 2021; Abramitzky & Boustan, 2022). Initial restrictive measures, starting in the late nineteenth century, screened individual skills. Literacy was the main concern in the public debate in regards to basic requirements for new immigrants (Goldin, 1994). Proposals to implement such legislation either failed in Congress or were ultimately vetoed by Presidents Cleveland, Taft, and Wilson. Both congressional chambers overrode Wilson's second veto and established reading and writing requirements for immigrants in the Literacy Act (also known as Immigration Act of 1917) while barring most Asians from relocating to the US.[3] The passage of the Literacy Act marks the beginning of the end of the Age of Mass Migration (Abramitzky & Boustan, 2017).

Given the high levels of literacy by 1910, the Literacy Act is commonly deemed ineffective in mitigating European immigration (Hutchinson, 1981; Tabellini, 2020; Higham,

---

[2]The rise of the anti-immigrant movement is emblematic in the success of the anti-Catholic *Know-Nothing Party* around 1850 (cf. Alsan et al., 2020). Policies implemented to reduce the number of immigrants singled out classes, which were deemed, among others, insane, anarchist or involved in prostitution (Immigration Act of 1903), followed by disabled and ill persons (Immigration Act of 1907). More details on the legislative history of immigration to the US can be found in Hutchinson (1981). On the eugenicist motivation of immigration restrictions, see Okrent (2020).

[3]The special status of the Philippines, a main focus of this paper, was considered in the Literacy Act and exemptions granted. Besides the Philippines, the Empire of Japan, which disallowed emigration by the informal Gentlemen's Agreement in 1907, was excluded, at least in theory. Further, the policy did not apply to Asians working in certain professions and their families (Hutchinson, 1981). As the US entered into the First World War, multiple exemptions from the Literacy Act were also granted for Mexican workers in farming, mining and railroads. Lastly, refugees were exempt from the initial Literacy Act (Okrent, 2020).

1988).[4] Contemporaneous assessment corresponds with this point of view as the perceived ineffectiveness of previous policies ignited the support of stricter measures. Despite being provisional, the Emergency Quota Act of 1921 drastically reduced the number of migrants allowed into the US (Tabellini, 2020). Immigration from southern and eastern Europe was largely prevented and came to a halt for Asians. No such restrictions were set in place for immigration from the Americas (Abramitzky et al., 2023; Ager & Hansen, 2017; Massey, 2016).

Ongoing public discontent and anti-immigrant sentiments demanded more comprehensive, permanent restrictions, thus leading to the Johnson-Reed Act (also known as Immigration Act of 1924), which modified previous laws.[5] Economic crises in peak immigration years may have intensified the calls for restrictive policies. The measure also had the support of white farmers and business owners in the West, who claimed to be threatened by immigration from East Asia (Goldin, 1994; Tabellini, 2020).

The Johnson-Reed Act included the Asian Exclusion Act and the National Origins Act, which adjusted the existent quotas to determine the number of immigrants allowed into the US by using 1890 as the reference year. Changing the year of reference to 1890 essentially barred Asians from migrating to the US altogether, with the exception of Filipinos, then US nationals (cf. Okrent, 2020; Yang, 2020). Key details were left for later adjustment to implement the policy swiftly (Higham, 1988; Ngai, 1999). By 1929, quotas based on an immigrant's nation of origin capped the maximum numbers at 150,000 immigrants per year, thereby shifting the share of immigrants to the detriment of southern, eastern, but also central European countries, while favoring British immigrants (Ngai, 1999; Shah, 2021; Abramitzky & Boustan, 2022).

2.2. A Brief History of Filipino Americans

The history of Filipino Americans is relatively short, and almost entirely takes place in the twentieth century (cf. Melendy, 1974).

The Chinese Exclusion Act had increased the immigration from Japan because of labor shortages, the Gentlemen's Agreement with the Japanese Empire (which prohibited Japanese citizens from emigration) resulted in job vacancies in the US West. There were no restrictions of entry for immigrants, however, the transfer in colonial power from Spain to the US provided two motives for Filipinos to emigrate. Since 1901, the US Army and American teachers provided public education in English, and as a result, disseminated US-American values in the Philippines. On the other hand, the dependency on exports, coupled with the loss of life and famine in the Philippine-American war, provided push factors to emigrate (Sharma, 1984).

---

[4]Goldin (1994) offers a more detailed and somewhat challenging view on the Literacy Act and its history. Along this line, by using body height as a measure, Spitzer & Zimran (2018) find evidence for more positive selection among Italians under the Literacy Act.

[5]Coolidge (1921) offers insights into the mindset of the incoming Harding administration, distinguishing between assimilation by Nordics and others. President Coolidge himself signed the Johnson-Reed Act into law on May 24, 1924.

Filipinos settled in Hawaii (excluded for the sake of this paper) for agricultural work, while students mostly moved to California. The 1920s saw a drastic increase in Filipino immigration, with their primary occupations being concentrated in the fields of agriculture, salmon canning, and services. Often work was seasonal and Filipinos moved between big cities and farming regions (Melendy, 1974). Furthermore, Filipinos served in the US Navy, although they had no path to citizenship until 1940 (Posadas, 1999).

Widespread participation among Filipinos in unions and the labor movement was a product of poor working conditions and discrimination in all aspects of life. Hostility against Filipino immigrants, particularly related to the opposition of intimate relations between Filipinos and white women, resulted in multiple riots in the late 1920s, culminating in the 1930 Watsonville riots (Melendy, 1974). Calls for political action to mitigate discord resulted in anti-miscegenation laws and policy considerations to bar Filipinos from entry (Daniels & Kitano, 1970, pp. 66–68).[6]

A law that would ban US nationals from entry, was deemed inappropriate by many policymakers in the US and the Philippines. One way to circumvent such a moral dilemma was to grant independence, thus allowing for restrictions on immigration in return (Bonacich, 1984). According to Hutchinson (1981), legal proceedings to limit the immigration of Filipinos emerged in 1931 but were not acted on. Two years later, the Hare-Hawes-Cutting Act passed Congress but was rejected by the Philippine Senate, mostly in opposition to trade barriers.

Starting in 1934, specific restrictions for the Philippines were introduced. The Tydings-McDuffie Act drastically reduced the number of immigrants per year allowed to 50 (from almost 4,600 under open borders in 1929).[7] To motivate their return, the Filipino Repatriation Act was ratified in 1935, which allowed for free one-way travel to the Philippines.[8] The Luce-Celler Act, which was passed just two days before Philippine independence on July 4 in 1946, doubled the annual immigration quotas for Filipinos to 100 immigrants.[9]

The policies discussed herein largely remained in place until the major overhaul of immigration policies in 1965, which also abolished the reference to national origins in earlier censuses (Yang, 2020). My data exclude years later than 1940 from the analysis, thus ignoring drastic demographic changes among Filipino and international migrants.[10]

---

[6]In 1948, laws to prohibit interracial marriages were ultimately ruled unconstitutional by the California Supreme Court. The US Supreme Court followed in 1967.

[7]The Tydings-McDuffie Act (or Philippine Independence Act) also reclassified Filipinos in the US from *nationals* to *aliens* for immigration purposes.

[8]This act expired in 1938 with a total of 2,190 repatriates (less than five percent of the 1930 stock; Posadas, 1999, p. 24; Melendy, 1974, p. 544) and was considered a flop by contemporaneous officials, see http://content.time.com/time/subscriber/article/0,33009,760236,00.html.

[9] Under the Luce-Celler Act, Filipinos could naturalize as American citizens, which had been possible through military service since 1940. The same measure applied to Indians. The Immigration and Nationality Act of 1952 (McCarran-Walter Act) made all other Asian immigrants eligible for naturalization but limited immigration from their homecountries at one hundred per year (Paik, 2020).

[10]Examples include the conscription of thousands of Filipinos into the US Army (of whom 10,737 were naturalized) and so-called war brides and mutual children (up to 108,000 immigrants) as well as nursing graduates. None of these entered the US through the quotas (Posadas, 1999). Melendy (1974) offers a contemporaneous and refined view on Filipino migration to the US, also citing changes

According to estimates by the 2018 American Community Survey, almost 4.1 million Filipinos and Filipino Americans live in the US, forming the third-largest group of Asian descent.

3. Theory

Unsurprisingly, immigration restrictions reduce the future inflow of labor into a country. Over time, this policy slows the growth of labor supply for given wages because the cost of migration increases. According to neoclassical economic theory, labor supply shifts to the left. Less competition from new arrivals allows for the bargaining of higher wages or taking more attractive job offers. In that sense, on average, immigration restrictions are expected to improve the income situation and occupational standing of prior immigrant cohorts (Abramitzky et al., 2023; Ager & Hansen, 2017; Ward, 2017).

However, it seems plausible that these implications vary for different groups in the country. Ultimately, the impact of such a labor market shock depends on assumptions made about the substitutability between native and immigrant labor, skill levels, and returns to scale (Ager & Hansen, 2017; Borjas, 2014).

In this paper, I focus on the substitutability within the foreign-born population, assuming that identical birthplaces approximate a high degree of substitutability over time. Other characteristics that determine substitutability across immigrant groups are addressed below (cf. Ottaviano & Peri, 2012; Beaman, 2012). If we consider imperfect substitution between different groups of immigrants, quotas to entry improve the occupational standing of those in close competition to would-be migrants. As an example, an experienced carpenter in the Midwest from Germany may be threatened most by a similar craftsman who could undercut his wage at the same place.

In contrast to natives and other immigrant groups, Filipinos will still face competition from incoming compatriots because Filipinos face language and social barriers to employment, higher than those of e.g. Canadians; moreover, Filipinos and other Asian immigrant groups did not have a legal path to citizenship before 1946 (see fn. 9). According to this reasoning, greater Filipino immigration relative to Canadian immigration puts downward pressure on the relative wages of Filipinos. The absolute effect on Filipino wages might still be positive, but in case of occupational downgrading the results could even be negative. This rationale provides a first hypothesis to test empirically.

The impact of immigration restrictions on other labor market outcomes is less straightforward. The Johnson-Reed Act may also affect employment or labor force participation if continuous immigration from the Philippines threatens employed workers from any other country. If both groups have a high degree of substitutability, firms may prefer hiring Filipinos to reduce costs. The higher degree of competition by close substitutes may suggest for a need to find employment among Filipinos, arguing for a relative increase in their employment status and labor force participation. Additionally, the quotas

---

in racial discrimination and its impact on Filipino farm labor after World War II (p. 530). For further information on US immigration policies after 1924, see Yang (2020).

in place lead to increased emigration of unemployed, further impacting the composition of both treatment and control group.

There are many factors which could determine these outcomes of Filipinos. Negative selection may arise by open borders and migration networks as increased immigration may attract less-skilled Filipinos to move to the US. Open borders could motivate more Filipinos to emigrate as long as vacancies prevail and returns to skills are higher in the US than at home. An increasing number of Filipinos also establishes migration networks, lowering migration costs. In both scenarios, negative selection leads to lower average skill levels, and thus a decline in Filipinos' incomes. If such a trend exists, it should be visible in the outcomes of more recent immigrants.

Group interaction merits a closer look. In general, the native population could influence the assimilation of immigrants in two ways. First, increased immigration could provoke a backlash, in particular for groups with wider cultural gaps such as the Filipinos (e.g. by religious denomination or language). Social backlash might lead to a higher degree of discrimination, less prestigious jobs, retributions against unionization among Filipinos, and social exclusion (cf. Tabellini, 2020). Secondly, assimilation and acceptance into the native society might advance over time (cf. Steinmayr, 2021).

As a result of such ongoing assimilation, incumbent migrant workers become more substitutable with natives as time goes by. However, if previous migrant cohorts remain vulnerable to being replaced by incoming Filipinos, they can prevent competition by moving away from regions where new immigrants have also moved to or by looking for better jobs. If previous immigrants respond in this way to new arrivals, the effect of differential restrictions on employment may be attenuated, which motivates a nationwide analysis (cf. Massey, 2016). In the long run, the total impact of reactions by natives and previous immigrant groups on Filipino immigration is unclear.

The Johnson-Reed Act potentially improved the relative position of restricted migrants by accelerating their rate of assimilation. In contrast, incoming Filipinos were in need of employment, which strengthens the argument for a positive effect on their employment and labor force participation status, when compared to other immigrant groups. Ultimately, the impact of restrictions on employment, and similarly labor force participation, remains an empirical question to answer.

4. Data, Estimation Strategy and Results

4.1. Data

In my analysis, I focus on foreign-born men to evaluate the impact of immigration restrictions. Because the Johnson-Reed Act affects immigrant groups differently, I distinguish between Filipinos and other immigrant groups by place of birth.

I use the full-count census data from 1910–1940. Residents of group quarters and natural-born citizens, i.e. those who were born abroad to US-American citizens, are excluded from the data used in the estimations below. To avoid imprecise estimates, I also exclude immigrants from American countries of birth.

More information on the variables used in this paper is listed in Appendix Table A.1. Income and wage data are only recorded for 1940 onward, while employment is not included in the 1920 census. As a consequence, I focus on years for which data are available and rely on proxies for relevant outcomes. Since income is not observed, I use the occupational income scores provided by the Integrated Public Use Microdata Series (IPUMS), as commonly done in the literature (cf. Abramitzky et al., 2014; Chen, 2015; Tabellini, 2020).[11] The occupational income score is calculated as the median total income within an occupation in hundreds of 1950 dollars.

Fig. 1 shows the total numbers of Filipinos and all other foreign born by year of immigration in the 1930 census, the latest in the sample to report that variable. While the number of Filipino immigrants peaked in 1929 at about 4,600, immigration in general decreased from 1910 onwards, and even more after restrictions were implemented.

(a) Filipinos   (b) Others
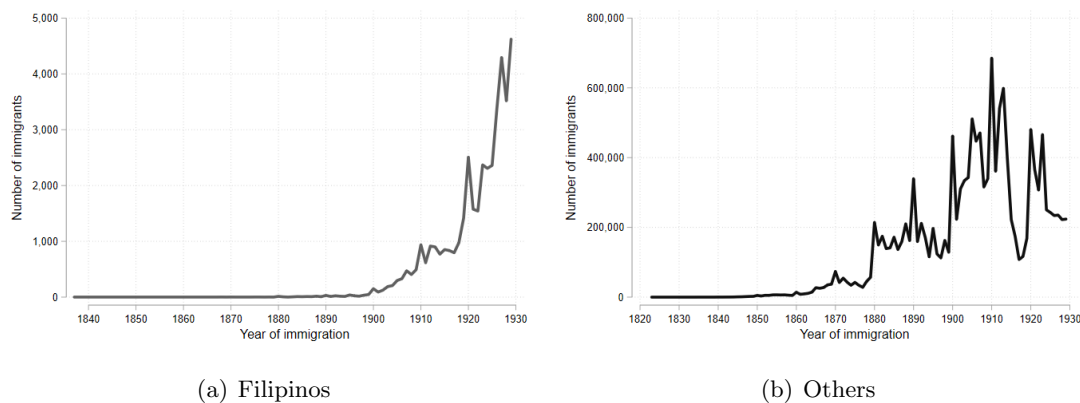
Figure 1: **Total Numbers of Foreign Born over Year of Immigration in the 1930 Census.** The figure considers both men and women of the full-foreign born population. Only years until 1929 are represented because the 1940 census does not specify years of immigration.
Data source: Ruggles et al. (2021).

Descriptive statistics, separated by an indicator on birthplace in the Philippines, are listed in Tables 1 and B.1. Table 1 further distinguishes between the full foreign-born population (save Alaska and Hawaii) and the sample of prime-working aged men, i.e. between 15 and 65 years old. For both population and sample, the descriptive statistics reveal an abundance of young and unmarried men among Filipinos. Their years in the US are clearly below the average of other groups. This difference coincides with a lag in year of migration, as outlined above, but may also be linked with the timing of

---

[11]Limited variation is a potential problem with occupational income scores, especially within occupations (Abramitzky et al., 2012; Chen, 2015), and discrimination not detectable (Abramitzky & Boustan, 2022). Spitzer & Zimran (2018) list further issues on the variable. However, Sobek (1996) finds that the 1950 occupational income is a good approximation for the one in 1890.

	Full Foreign-born Population				Sample			
	(1) Filipinos		(2) Others		(3) Filipinos		(4) Others	
	mean	sd	mean	sd	mean	sd	mean	sd
Male	0.91	0.28	0.55	0.50	1.00	0.00	1.00	0.00
Age	29.93	9.81	43.15	16.83	31.47	8.50	41.53	12.43
Married	0.15	0.36	0.61	0.49	0.21	0.41	0.67	0.47
Year of immigration	1919.97	9.17	1898.82	16.20	1919.40	9.22	1900.20	13.73
Years in the US	8.44	7.60	21.56	15.18	9.66	8.57	18.34	12.62
In labor force	0.86	0.35	0.56	0.50	0.93	0.25	0.94	0.23
Employed	0.79	0.41	0.48	0.50	0.85	0.36	0.80	0.40
Log occupational income score	2.50	0.47	3.04	0.49	2.55	0.51	3.13	0.39
N	94,048		53,743,731		49,151		20,950,262	

Table 1: **Summary Statistics of Key Variables for Foreign-born Population (Cross-sections, 1910–1940).** This table considers the full foreign-born population in columns (1) and (2); the latter two columns describe the sample used in the analysis below, i.e. men between 15 and 65 years old.

restrictions and possibly higher return migration, which amounted to between 16 and 50 percent of yearly arrivals (cf. Melendy, 1974, p. 526).[12]

These same reasons potentially explain the differences in labor market outcomes, the main variables of interest in this paper between Filipinos and other immigrants. For the full population, the shares of both employed and people in the labor force are greater for Filipinos, but very close for the sample considered. In contrast, log occupational income scores are lower for Filipinos than for other immigrants.

Table 2 reports descriptive statistics by group and census year; Appendix Table B.1 does so for the full population. Average ages and the percentage of married people increase in the time span covered by the table. Labor force participation and employment status of Filipinos increase after 1920. Both variables are relatively stable for other immigrants, with a small downward trend in labor force participation. Log occupational income scores temporarily fall for Filipinos, diverging from the continuous increase for everyone else.

Whether these trends can be linked empirically to the restrictive policies is at the heart of the next section.

4.2. Estimation Strategy

In my baseline model, I compare Filipinos whose ability to migrate was not restricted by immigration restrictions.[13] This enables a difference-in-differences

---

[12]Note that I cannot further distinguish for variation within the Filipino population. For reference, Melendy (1974) points out that around 70 percent of Filipino Americans in the US at that time originate from Ilocos Norte and Ilocos Sur.

[13]In contrast to Massey (2016), I cannot detect the place of residence prior to migrating to the US. Before 1922, such migrants may be considered e.g. as Canadian. Hence, for the purpose of this study,

Table: Census year

Census year	1910 Filipinos (1) mean/sd	1910 Others (2) mean/sd	1920 Filipinos (3) mean/sd	1920 Others (4) mean/sd	1930 Filipinos (5) mean/sd	1930 Others (6) mean/sd	1940 Filipinos (7) mean/sd	1940 Others (8) mean/sd
Male	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Age	29.96	37.55	26.70	39.83	27.14	42.61	35.01	47.50
	12.60	12.68	7.37	12.14	6.97	11.74	7.79	10.77
Married	0.27	0.58	0.17	0.65	0.13	0.71	0.27	0.75
	0.44	0.49	0.37	0.48	0.34	0.45	0.44	0.43
Year of immigration	1898.58	1893.19	1910.81	1900.18	1921.02	1906.70	1935.00	1935.00
	11.96	13.14	7.33	11.90	7.47	12.11	0.00	0.00
Years in the US	11.42	16.81	9.19	11.90	.	.	.	.
	11.96	13.14	7.33	19.82	.	.	.	.
In labor force	0.89	0.96	0.86	0.95	0.94	0.95	0.94	0.90
	0.31	0.20	0.35	0.22	0.24	0.21	0.24	0.30
Employed	0.70	0.75	.	.	0.85	0.84	0.85	0.82
	0.46	0.43	.	.	0.36	0.37	0.36	0.39
Log occupational income score	2.51	3.08	2.73	3.12	2.50	3.15	2.57	3.18
	0.67	0.40	0.57	0.38	0.51	0.38	0.51	0.40
Skill	1.07	1.13	1.09	1.15	1.05	1.20	1.07	1.22
	0.26	0.34	0.30	0.37	0.23	0.41	0.26	0.41
N	688	5,490,734	2,554	5,669,227	18,968	5,495,380	26,941	4,294,921

Table 2: **Summary Statistics of Key Variables for Foreign-born by Census Year.** This table considers the sample on men between 15 and 65 years of age, which is used in the empirical analysis of the paper. For the full foreign-born population, see Table B.1.

evaluation of the Johnson-Reed Act and subsequent policies, focusing on changes in the Philippine-born population. However, data scarcity and the rapid increase in Filipinos' employment raise concern to which extent other immigrants are a valid control group; this issue is addressed below.

The underlying assumption is that both immigrant groups, Filipino and other immigrants, follow similar trends before the restrictions come into effect. I apply the following model for estimation of various outcome variables, e.g. *ln occ. income score$_{igt}$*:

$$y_{igt} = \beta_0 + \beta_1 JohnsonReed_{it} + \beta_2 Filipino_{ig} + \beta_3 JohnsonReed_{it} \times Filipino_{ig} \quad (1)$$
$$+ \epsilon_{igt},$$

where the subscripts refer to immigrant i in group g at time t. The interaction between $JohnsonReed_{it}$ and $Filipino_{ig}$ provides the main coefficient of interest, β_3, the difference-in-differences estimate for Filipinos in the post-treatment periods. The estimates can be interpreted as the relative change in status and log occupational income scores between Filipinos and other immigrant groups. Following the theory outlined above, I expect a lower relative log occupational income score for Filipinos, and possibly higher relative shares of employment and labor force participation.

Similar to Massey (2016), I do not include control variables in the base model. The policy changes may alter the selection of immigrants, which could also impact such controls, e.g. age and sex of immigrants, and so induce selection bias (cf. Spitzer & Zimran, 2018). Alternatively, I control for age, marital status, and state indicators.

I also include indicators for census years and country of birth. All these variables offer potential determinants for substitution across demographic groups. Given likely geographical autocorrelation and the large number of observations, I refrain from clustering standard errors.

4.3. Cross-sectional Results

Table 3 reports cross-sectional estimates of Eq. (1) for log occupational income score. Odd-numbered columns refer to the unconditional model, while even-numbered columns control for age, marital status, and state of residence. Columns (1) and (2) consider the full sample, while the latter four separate this by recent and previous cohorts with five years in the US as the relevant threshold in the data. Missing information on the year of immigration explains most of the gap in observations.

According to the estimates, (log) occupational income score increases over time, reflected by positive coefficients on *Johnson-Reed Act*. Throughout the specifications, Filipinos experience a lower score than other foreign-born men, which is further exacerbated after the implementation of restrictions, implied by the negative interaction terms. The full sample estimates vary between 0.17 and 0.21 log scores. The effect on Filipinos' log occupational income score is sizable, translating into a relative decline by about 18.4–23.4 percent.

I assume the place of origin as identical to one's birthplace (if not born abroad to US-American parents).

Overall, the absolute effect is negative for Filipinos because their log occupational income score declines over time with values ranging from 0.3 to 0.6 log scores (or 35–82 percent below the control group). These numbers indicate a drastic downgrading in Filipinos' occupational ranking after the Johnson-Reed Act. These results match the economic theory outlined above that open borders for Filipinos affect their occupational standing negatively.

Generally, the two subsamples mirror the previous assessment because estimates for recent and previous cohorts are similar in absolute value. However, the inclusion of controls decreases the coefficients' magnitude, in particular for recent immigrants. A possible explanation is that recent cohorts lack place-specific human capital and are highly substitutable across immigration groups.

	Log occupational income score					
	Full sample		Recent immigrants		Previous cohorts	
	(1)	(2)	(3)	(4)	(5)	(6)
Johnson-Reed Act	0.0555***	0.0495***	0.0787***	0.111***	0.0438***	0.0345***
	(0.000)	(0.000)	(0.001)	(0.002)	(0.000)	(0.000)
Filipino	-0.370***	-0.152***	-0.416***	-0.300**	-0.327***	-0.0865**
	(0.011)	(0.027)	(0.020)	(0.118)	(0.013)	(0.039)
Johnson-Reed Act× Filipino	-0.254***	-0.175***	-0.265***	-0.114***	-0.244***	-0.179***
	(0.011)	(0.011)	(0.020)	(0.020)	(0.014)	(0.013)
Age		-0.000163***		0.000839***		-0.000305***
		(0.000)		(0.000)		(0.000)
Married		0.104***		0.0729***		0.0936***
		(0.000)		(0.001)		(0.000)
Urban		0.275***		0.189***		0.299***
		(0.000)		(0.001)		(0.000)
Age bracket		-0.00248***		-0.00122		-0.00302***
		(0.000)		(0.001)		(0.000)
Constant	3.120***	2.526***	3.055***	2.674***	3.131***	2.485***
	(0.000)	(0.025)	(0.000)	(0.117)	(0.000)	(0.038)
State controls	No	Yes	No	Yes	No	Yes
N	19,345,589	19,345,589	1,925,329	1,925,329	13,543,786	13,543,786

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 3: **Repeated Cross-sectional Regression Results on Log occupational income score.** The sample only includes prime working age men with foreign birthplace and non-American parents. Recent immigrants refer to those migrating within the last five years before each census. The pre-period includes 1910 and 1920, whereas 1930 and 1940 form the post-period. All specifications consider control for state and time fixed effects and age cohorts.

Previous Filipino cohorts seem to be more vulnerable to the restrictions when compared to other immigrants. In that sense, the ongoing immigration from the Philippines

hurts the relative standing of existing cohorts of Filipinos despite their advantage of earlier arrival. Other established immigrants do not experience such a large-scale downgrading.

The slightly smaller magnitude between recent and previous cohorts, and overlapping total effects, might argue against negative selection among Filipinos. This result may partly rely on the Tydings-McDuffie Act, which drastically restricted Filipino immigrants beginning in 1934 and is addressed in more detail in subsection 4.4 below.

Tables 4 and 5 follow the previous pattern for employment status and labor force participation. As I outlined in the theory section, the anticipated results are less straightforward, in particular because unemployed immigrants may consider to return to their home countries, which could influence the basis for the relative estimates.

For employment status, the overall share of employed men increases over the observed period (although not necessarily for recent arrivals). On average, Filipinos have a consistently lower likelihood to be employed by about 5.6–7.6 percentage points in the full sample. After the passage of the Johnson-Reed Act, there seems to be a relative increase in the employment rate for Filipinos, up to 7.7 percentage points. According to these estimates, Filipinos have a higher propensity to be employed after the Johnson-Reed Act in relative terms, whereas the absolute effect is ambiguous. Again, the impact seems to be mostly on previous cohorts, both in terms of magnitude and statistical significance, in line with the hypothesized imperfect substitutability across immigrant groups.

It should be noted that the estimates may also reflect the lower initial employment numbers of Filipinos in 1910, and a subsequent catching up to other immigrants. In this case, the parallel trends assumption may be violated. I address other potential issues below. Looking at labor force participation may provide better insights than for employment, given availability of data for 1920, the most recent census before the Johnson-Reed Act.

Unlike employment, labor force participation falls over time within the full sample (columns 1 and 2 in Table 5). The large negative estimates for Filipinos align with those on employment status, whereas the post-period estimates do not. While the estimates are largely negative for the first two rows, the interaction term is consistently positive. After the Johnson-Reed Act, Filipinos may have a greater incentive to work than before, which could explain the relative increase of around 10 percentage points on average. The magnitude of this estimate also offsets Filipinos' initially lower propensity to participate in the labor force. In contrast to previous results, the estimates are largest for recent immigrants. This may largely rely on the high participation rates among Filipinos in the pre-period, and opposing trends across groups thereafter.[14]

To summarize this first set of results: the difference-in-differences analysis finds a negative impact of immigration restrictions on unrestricted Filipinos' relative occupational standing, which is consistent with previous findings on all immigrants to the US (cf. Ward, 2017). While Filipinos are more likely to seek and find employment, they experi-

---

[14]As a robustness check, I excluded the year 1920 to mimic the lack of data for employment. The estimates in Appendix Table C.1 are remarkably similar, giving credence to those in the baseline model of Table 5.

	Employed					
	Full sample		Recent immigrants		Previous cohorts	
	(1)	(2)	(3)	(4)	(5)	(6)
Johnson-Reed Act	-0.0475***	-0.0355***	-0.0690***	-0.161***	-0.0306***	-0.0116***
	(0.000)	(0.000)	(0.001)	(0.002)	(0.000)	(0.000)
Filipino	-0.0598***	0.194***	-0.0735***	-0.191***	-0.0530***	0.0440
	(0.015)	(0.028)	(0.022)	(0.060)	(0.020)	(0.049)
Johnson-Reed Act × Filipino	0.0789***	0.0786***	0.0943***	0.0886***	0.0579***	0.0467**
	(0.015)	(0.015)	(0.022)	(0.022)	(0.020)	(0.020)
Age		-0.00404***		-0.00207***		-0.00329***
		(0.000)		(0.000)		(0.000)
Married		0.101***		0.0309***		0.0851***
		(0.000)		(0.001)		(0.000)
Urban		-0.0290***		-0.0180***		-0.0298***
		(0.000)		(0.001)		(0.000)
Age bracket		0.00620***		0.0236***		0.00195***
		(0.000)		(0.001)		(0.000)
Constant	0.879***	0.786***	0.889***	1.078***	0.876***	0.934***
	(0.000)	(0.024)	(0.000)	(0.056)	(0.000)	(0.044)
State controls	No	Yes	No	Yes	No	Yes
N	15,330,690	15,330,690	1,874,998	1,874,998	9,214,925	9,214,925

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 4: **Repeated Cross-sectional Regression Results on Employment Status.**
The sample only includes prime working age men with foreign birthplace and non-American parents. Recent immigrants refer to those migrating within the last five years before each census. The pre-period includes 1910 and 1920, whereas 1930 and 1940 form the post-period.

ence a downgrading in their occupational ranking, and thus likely in incomes. A possible explanation for the relative increase of employment and labor force participation under Johnson-Reed is that the match of potential jobs declined, especially for Filipinos, and labor force participation increased out of sheer necessity. The coinciding Great Depression may lend additional support to this hypothesis, if it affected Filipinos differently than anyone else. Alternatively, with less immigration on the national level, Filipinos may face more vacancies in local labor markets.

4.4. Dynamic Approach

In an additional step, I take a closer look at the labor market dynamics in the post-period. This also allows for taking partial effects of the Tydings-McDuffie Act into account, which restricted immigration from the Philippines since 1934. To do so, I

| | In labor force | | | | | |
| | Full sample | | Recent immigrants | | Previous cohorts | |
	(1)	(2)	(3)	(4)	(5)	(6)
Johnson-Reed Act	-0.0230***	-0.0550***	-0.0422***	-0.148***	0.00283***	-0.00510***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Filipino	-0.100***	0.137***	-0.154***	-0.0259	-0.0732***	-0.0300
	(0.006)	(0.022)	(0.011)	(0.077)	(0.007)	(0.025)
Johnson-Reed Act $\times$ Filipino	0.107***	0.112***	0.160***	0.122***	0.0518***	0.0522***
	(0.006)	(0.006)	(0.011)	(0.011)	(0.007)	(0.007)
Age		-0.00230***		-0.000727***		-0.00182***
		(0.000)		(0.000)		(0.000)
Married		0.0697***		0.0308***		0.0609***
		(0.000)		(0.000)		(0.000)
Urban		-0.00637***		-0.0106***		-0.00568***
		(0.000)		(0.000)		(0.000)
Age bracket		0.00522***		0.0253***		0.00310***
		(0.000)		(0.000)		(0.000)
Constant	0.954***	0.780***	0.960***	0.842***	0.953***	0.963***
	(0.000)	(0.021)	(0.000)	(0.077)	(0.000)	(0.024)
State controls	No	Yes	No	Yes	No	Yes
N	21,027,577	21,027,577	2,080,460	2,080,460	14,706,350	14,706,350

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 5: **Repeated Cross-sectional Regression Results on Labor Force Partic-ipation.** The sample only includes prime working age men with foreign birth-place and non-American parents. Recent immigrants refer to those migrating within the last five years before each census. The pre-period includes 1910 and 1920, whereas 1930 and 1940 form the post-period.

modify the previous equation:

$$y_{igt} = \beta_0 + \sum_{p=1}^{p_1} \beta_1^p year_t^p + \beta_2 Filipino_g + \sum_{q=1}^{q_1} \beta_3^q post_t^q \times Filipino_g \qquad (2)$$
$$+ \epsilon_{igt}.$$

Eq. (2) includes separate year indicators for the census years, i.e. $p_1 = 4$. Indicator variables for the years in the post-period and $q_1 = 2$ are interacted with $Filipino_g$. Naturally, 1910 serves as the base year.

The estimates in Table 6 show a steady increase in log occupational income score over the years, and reversing trends for employment (which is positive) and labor force participation status (negative). On average, Filipinos fare worse than their foreign-born peers for all outcome variables. The estimation results on the interaction term reveal a greater relative impact on Filipinos' log occupational income score in 1930 than in 1940

(e.g. –0.23 compared to –0.18 in column 1). This occupational downgrading is consistent with the later restrictions by the Tydings-McDuffie Act in 1934, and thus more similar treatment regardless of place of birth.

	(1)	(2)	(3)	(4)	(5)	(6)
	Log occupational income score		Employed		In labor force	
1920	0.0429***	0.0358***			-0.0119***	-0.0158***
	(0.000)	(0.000)			(0.000)	(0.000)
1930	0.0764***	0.0614***	0.0875***	0.102***	-0.00662***	-0.00984***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
1940	0.104***	0.0790***	0.0626***	0.0904***	-0.0587***	-0.0564***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Filipino	-0.433***	-0.334***	-0.0557***	-0.0759***	-0.0843***	-0.0832***
	(0.013)	(0.013)	(0.018)	(0.017)	(0.006)	(0.006)
1930 × Filipino	-0.225***	-0.191***	0.0662***	0.0530***	0.0703***	0.0728***
	(0.013)	(0.013)	(0.018)	(0.017)	(0.006)	(0.006)
1940 × Filipino	-0.181***	-0.156***	0.0902***	0.0774***	0.121***	0.123***
	(0.013)	(0.013)	(0.018)	(0.017)	(0.006)	(0.006)
Age		-0.000862***		-0.00329***		-0.00171***
		(0.000)		(0.000)		(0.000)
Married		0.120***		0.0917***		0.0686***
		(0.000)		(0.000)		(0.000)
Constant	3.077***	3.114***	0.753***	0.895***	0.959***	1.001***
	(0.000)	(0.003)	(0.000)	(0.003)	(0.000)	(0.001)
State controls	No	Yes	No	Yes	No	Yes
N	17,045,421	17,045,421	15,327,632	15,327,632	20,999,413	20,999,413

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 6: **Repeated Cross-sectional Regression Results on Labor Market Variables, Including Year Dummies (Full Sample).** The sample only includes prime working age men with foreign birthplace and non-American parents. Here, the post-period is considered by separate year dummies, and interacted with a binary variable on Filipinos.

In contrast, the relative impact on Filipinos is increasing over the years for both employment (from around 6 percentage points to 8) and labor force participation status (from 7 to 12). This means that Filipinos are more likely to seek and find employment after the Johnson-Reed Act, further increasing their likelihood to exceed the figures of other foreign born by 1940. These increasing trends are not entirely coherent with the theory because immigration by all groups covered in the sample has slowed down, and so presumably pressure to seek employment. However, it is possible that while the

restrictions on Filipinos had such an impact, their absence in the early 1930s further enhanced the pressure and is not fully countered until 1940. A back-of-the-envelope calculation based on Table 2 implies that there were at least 7,973 Filipinos migrating between 1930 and 1940 (approx. 42 percent of the 1930 stock). According to Appendix Table B.2, only 838 of these entered under Tydings-McDuffie, which suggests that an alleviation of the negative impact in 1940 is possible but not guaranteed.

Separate estimations for recent and established immigrants provide more details on the impact of the Johnson-Reed Act. The estimates for previous immigrants in Table 7 report enhancing trends over the post-period for all variables. According to these estimates, previous immigrant Filipino cohorts continue to face downward pressure on their relative occupational income scores and have a greater propensity to seek employment in 1940.

The dynamics for most recent Filipino immigrants may also support the idea of an impact of the policy change as the estimates in Table 8 differ from those for the whole sample and established immigrants. The estimates for 1930 largely align in size, but not in terms of statistical significance. When restrictions apply to all immigrant groups in 1940, immigrant groups become statistically indistinguishable, which suggests a high degree of substitutability among recent arrivals. In turn, this suggests that the effects in the whole sample stem from established immigrants, which includes everyone migrating in or before 1934, i.e. the year of implementation of the Tydings-McDuffie Act.

The general results, a large negative relative decline in occupational income score and a small increase in employment status and labor force participation for established Filipinos, are consistent with the economic theory outlined above. The subsiding immigration of Filipinos slightly improves the relative occupational standings for recent arrivals from the same country of origin. There appears to be some degree of substitution between Filipinos and other groups, but also over time. A greater economic impact on Filipinos in 1930 reflects the change in immigration regime, which reduces the inflow from all places outside the Americas, and so, the degree of competition from immigration. The statistically insignificant estimates for recent, restricted Filipinos support the hypothesis on imperfect substitutability. Alleviation of the Great Depression, an alternative explanation, does not fit with the continuing competition among established cohorts.

4.5. Challenges to Identification

Apart from the aforementioned issues arising from the lack of observations on employment status, there are several challenges to my identification strategy. The parallel trends assumption may be violated if either immigrant group changes preferences of location, reflected by states, before the policy change. Alternatively, networking could influence the labor market outcomes of immigrant groups in different ways. It is also possible that the effect of the Great Depression (or other events) was heterogeneous across groups and thus influences the estimation results. Likewise, technological advance could lead to differences that are not fully picked up by the model.

	(1)	(2)	(3)	(4)	(5)	(6)
	Log occupational income score		Employed		In labor force	
1920	0.0286***	0.0237***			-0.00924***	-0.0116***
	(0.000)	(0.000)			(0.000)	(0.000)
1930	0.0633***	0.0529***	0.0961***	0.113***	-0.00378***	-0.00494***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
1940	0.0870***	0.0683***	0.0727***	0.104***	-0.0557***	-0.0501***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Filipino	-0.374***	-0.297***	-0.0765***	-0.0901***	-0.0493***	-0.0514***
	(0.015)	(0.015)	(0.024)	(0.024)	(0.007)	(0.007)
1930 × Filipino	-0.228***	-0.196***	0.0880***	0.0682***	0.0372***	0.0390***
	(0.016)	(0.016)	(0.024)	(0.024)	(0.007)	(0.007)
1940 × Filipino	-0.240***	-0.206***	0.112***	0.0922***	0.0880***	0.0899***
	(0.016)	(0.015)	(0.024)	(0.024)	(0.007)	(0.007)
Age		-0.00122***		-0.00350***		-0.00198***
		(0.000)		(0.000)		(0.000)
Married		0.117***		0.106***		0.0722***
		(0.000)		(0.000)		(0.000)
Constant	3.094***	3.152***	0.745***	0.885***	0.957***	1.009***
	(0.000)	(0.003)	(0.000)	(0.003)	(0.000)	(0.001)
State controls	No	Yes	No	Yes	No	Yes
N	15,358,825	15,358,825	13,458,466	13,458,466	18,907,552	18,907,552

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 7: **Repeated Cross-sectional Regression Results on Labor Market Variables, Including Year Dummies (Previous Cohorts).** The sample only includes prime-working age men with foreign birthplace and non-American parents, who did not migrate in the last five years before each census. Here, the post-period is considered by separate year dummies, and interacted with a binary variable on Filipinos.

Fig. 2 pictures the trends of key variables for Filipinos as well as other immigrants over census years by visualizing the means in Table 2. The solid vertical lines represent the year of implementation for the Johnson-Reed and the Tydings-McDuffie Act, i.e. policies restrictive for others and Filipinos. Given the data structure, the pre-period includes the years 1910 and 1920 (only 1910 for *Employed*). As the trend is also moving for the control group, it is essential to focus on the divergence of trends across the two groups.

For labor force participation and log occupational income score, the pre-trends move in similar ways for Filipinos and the reference group. These trends change in the post-
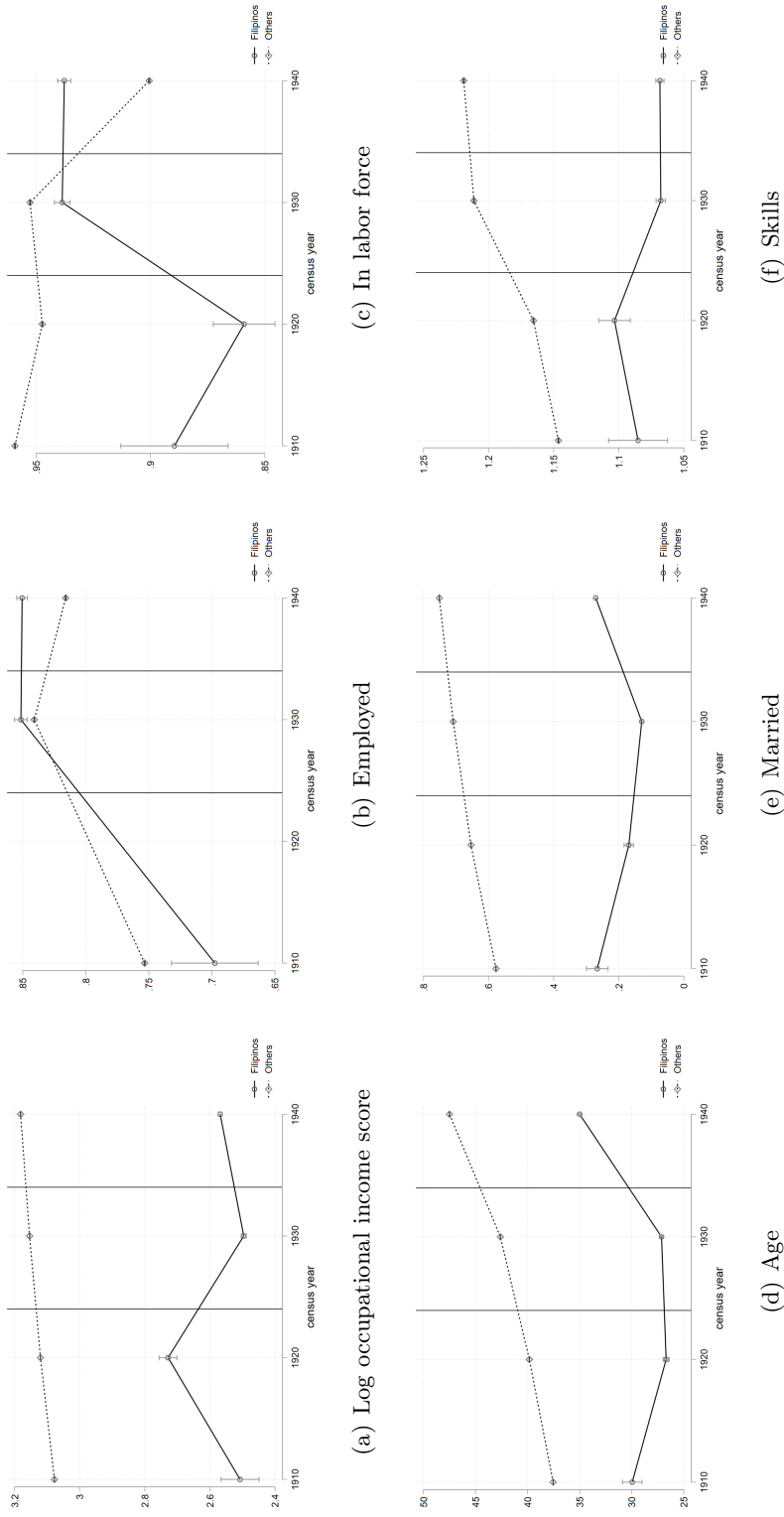
Figure 2: **Trends of Key Variables over Time for Different Immigrant Groups.** The graph pictures the means and the 95 percent confidence intervals derived from the sample of foreign-born men between 15 and 65 years. The vertical lines represent the passage of the Johnson-Reed Act in 1924 (restricting Others) and the Tydings-McDuffie Act in 1934 (restricting Filipinos). Note that there are no data on *Employed* in the 1920 census. Data source: Ruggles et al. (2021).

	(1)	(2)	(3)	(4)	(5)	(6)
	Log occupational income score		Employed		In labor force	
1920	0.0329***	0.0560***			-0.0397***	-0.0463***
	(0.001)	(0.001)			(0.001)	(0.001)
1930	0.0677***	0.0460***	0.0619***	0.0727***	-0.0280***	-0.0374***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)	(0.001)
1940	0.182***	0.144***	-0.0463***	-0.0356***	-0.130***	-0.151***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
Filipino	-0.496***	-0.325***	-0.0420*	-0.0545**	-0.127***	-0.123***
	(0.022)	(0.022)	(0.025)	(0.025)	(0.011)	(0.011)
1930 × Filipino	-0.186***	-0.122***	0.0529**	0.0457*	0.126***	0.127***
	(0.023)	(0.022)	(0.026)	(0.025)	(0.012)	(0.011)
1940 × Filipino	-0.0755*	-0.0494	-0.0389	-0.0524	0.0210	0.0195
	(0.042)	(0.041)	(0.036)	(0.035)	(0.026)	(0.026)
Age		0.000628***		0.000539***		0.00188***
		(0.000)		(0.000)		(0.000)
Married		0.0862***		0.0132***		0.0296***
		(0.001)		(0.001)		(0.000)
Constant	3.033***	2.941***	0.777***	0.836***	0.964***	0.916***
	(0.000)	(0.009)	(0.000)	(0.008)	(0.000)	(0.004)
State controls	No	Yes	No	Yes	No	Yes
N	1,686,596	1,686,596	1,869,166	1,869,166	2,091,861	2,091,861

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 8: **Repeated Cross-sectional Regression Results on Labor Market Variables, Including Year Dummies (Recent Immigrants).** The sample only includes prime-working age men with foreign birthplace and non-American parents, who migrated in the last five years before each census. Here, the post-period is considered by separate year dummies, and interacted with a binary variable on Filipinos.

period by widening the gap to the control group for log occupational income score or reversing in the case of labor force participation (and employment). The relative disruption in log occupational income score is particularly remarkable, since it deviates from the roughly linear increase for other immigrants after 1924.

Skills, an ordinal rank taking on values from 1 to 3 for low to high, also reflects such changes across the groups. While other immigrants become more qualified, albeit on a low level, Filipinos' average jobs become more low-skilled under the quota regime. In contrast to the labor market outcomes and skills, the control variables for age and marital status move in different directions before the Johnson-Reed Act. These diverging

pre-trends may threaten the approach's validity, if either control itself explains a change in selection and thus captures the concurrent changes in labor market outcomes. Panel data analysis may help to address the underlying mechanisms.

5. Panel Data Analysis

The panel structure may detect changes in selection of immigrants, which can be linked to immigration restrictions. In theory, implementing restrictions for most other countries, and creating vacancies on the job market, potentially incentivizes Filipinos, who would not have migrated otherwise. This again may affect selection, if the average human capital for migrants declines, i.e. quality decreases (cf. Borjas, 1985). Panel analysis may be warranted by more complete information on selection, but also because it offers more in-depth information in certain variables, e.g. year of immigration before 1930 and internal migration within the US. Despite recent improvements it is important to keep in mind that linked census data could generate biased estimates (Bailey et al., 2020).

5.1. Set up

The following paragraphs describe the steps to create the panel data set in detail. This is to provide a clear picture to facilitate replication and highlight the decisions made in the process.

First, I use the full count data (only between 1920 and 1940) and split them into two subsamples: all foreign born in the 1920 and 1930 censuses and another one for 1930–1940.[15] Next, I match men across the three censuses, following Helgertz et al. (2020a). Matches occur along the dimensions of the household serial number, person number, consistent historical identifier, state, age, and birthplace. Notably, the year of immigration is missing from this list. In a further step, all household members are linked, thus likely overrepresenting married men. This procedure links up to three observations for each person in the data, an unbalanced Multigenerational Longitudinal Panel (MLP) derived from Helgertz et al. (2020b). I drop observations without a historical identifier.

Concerns on the applicability of the constructed MLP are visible in Table 9. While the share of men is still larger for Filipinos, it is almost 20 percentage points less than in Table 1. Likewise, there are 44 percent married Filipinos in the panel, compared to just 15 for the cross-sections. Around 59.3 percent of foreign-born men can be matched over the three censuses, but only 7.8 percent of Filipinos, which is below the linking rates of similar historical studies (cf. Biavaschi et al., 2021, p. 7).

The divergences from the cross-sectional data in Table 2.2 are naturally present in Table 10, which lists the same variables for the entire foreign-born population over the years. Even more concerning is the difference in the outcome variables, labor force participation and log occupational income score, whose means are below the ones in

---

[15]Only 34 Filipinos can be matched across the 1910 and 1920 data, and only 14 men of prime working age. A full panel for 1910–1940 only includes eleven Filipinos with multiple observations.

	(1) Filipinos		(2) Others	
	mean	sd	mean	sd
Male	0.72	0.45	0.56	0.50
Age	31.74	12.45	47.59	14.23
Married	0.44	0.50	0.82	0.38
Year of immigration	1919.44	7.84	1904.69	13.07
Years in the US	10.10	7.43	22.14	12.92
Employed	0.57	0.50	0.47	0.50
In labor force	0.61	0.49	0.53	0.50
Log occupational income score	2.84	0.57	3.14	0.42
N	3,857		12,415,614	

Table 9: **Summary Statistics of Key Variables for Foreign-Born Population (Panel 1920–1940).**

the cross-sectional data. This may lead to underestimated results, and thus issues in statistical inference.

Census year	(1) 1920	(2)	(3) 1930	(4)	(5) 1940	(6)
	Filipinos mean/sd	Others mean/sd	Filipinos mean/sd	Others mean/sd	Filipinos mean/sd	Others mean/sd
Male	0.57	0.57	0.55	0.57	0.77	0.55
	0.50	0.50	0.50	0.50	0.42	0.50
Age	22.93	38.11	21.28	48.08	34.98	51.73
	12.11	12.95	9.34	13.07	11.37	13.22
Married	0.56	0.83	0.38	0.82	0.51	0.82
	0.50	0.37	0.48	0.39	0.50	0.39
Year of immigration	1910.19	1900.65	1919.88	1906.56	1935.00	1935.00
	8.43	11.96	7.37	13.14	0.00	0.00
Years in the US	9.81	19.35	10.12	23.44	.	.
	8.43	11.96	7.37	13.14	.	.
In labor force	0.36	0.55	0.54	0.54	0.70	0.51
	0.48	0.50	0.50	0.50	0.46	0.50
Employed	.	.	0.51	0.48	0.64	0.47
	.	.	0.50	0.50	0.48	0.50
Log occupational income score	2.94	3.10	2.80	3.13	2.87	3.16
	0.57	0.42	0.57	0.42	0.57	0.42
N	120	2,329,899	2,005	5,029,394	1,732	5,056,321

Table 10: **Summary Statistics of Key Variables for Foreign-born Population by Census Year (Panel 1920–1940).**

5.2. Panel Results

Table 11 lists the results from the panel regressions. Note that the lack of employment figures for 1920 prevents a closer look for this variable, as there is no observation in the pre-period.

The estimates on log occupational income scores correspond for the panel and the repeated cross-sections (in Table 3) in direction and, apart from the interaction term, mostly in magnitude. While the estimates imply a decline for Filipinos' occupational income scores in the post-period by about 0.04–0.05 log scores, there is not enough variation for statistical robustness. If there are significant changes on log occupational income scores after the implementation of the Johnson-Reed Act, as Table 3 suggests, these did not primarily affect Filipinos in the panel data set.

For labor force participation, the results on timing and Filipinos are somewhat similar to previous cohorts in Table 5 for the post-period and Filipinos. Both estimates have the same direction, and are of low magnitude. This may partially be so, because of the shorter time span covered by the panel and change in the year of reference. However, the interaction term on labor force participation is ambiguous in Table 11. At least for those Filipinos tracked over censuses, there do not seem to exist significant changes in their propensity to participate in the labor force when compared to other immigrants.

| | (1) | (2) | (3) | (4) |
	Log occupational income score		In labor force	
Johnson-Reed Act	0.0313***	0.0479***	-0.0278***	-0.0363***
	(0.000)	(0.000)	(0.000)	(0.000)
Filipino	-0.232***	-0.206**	-0.0996***	0.0497
	(0.057)	(0.093)	(0.026)	(0.087)
Johnson-Reed Act × Filipino	-0.0467	-0.0430	-0.00434	0.00873
	(0.058)	(0.057)	(0.027)	(0.026)
Age		-0.00143***		-0.00169***
		(0.000)		(0.000)
Married		0.0964***		0.112***
		(0.000)		(0.000)
Constant	3.152***	3.211***	0.955***	0.805***
	(0.000)	(0.074)	(0.000)	(0.083)
State controls	No	Yes	No	Yes
n	3,583,774	3,583,774	3,884,921	3,884,921
N	5,842,574	5,842,574	7,088,910	7,088,910

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 11: **Panel Regression Results on Labor Market Outcomes.** The estimates are for men in prime-working age (15–65 years).

Despite the statistical insignificance for the main variables of interest, the panel estimates partially support the findings above, but emphasize the challenges of the panel approach to statistical inference. The limited numbers of Filipinos that can be tracked even before 1920 may reduce the size and composition of the sample decisively. In particular, the underrepresentation of singles by the tracking method could affect the estimation approach. Alternative linking methods, e.g. described by Abramitzky et al. (2021), suffer from the relatively low number of Filipinos that can be tracked.

Reconciling the conclusions so far, there seems to be empirical evidence for a negative impact on Filipinos' labor market outcomes by ongoing immigration. A potential explanation for the impact among migrant cohorts would be that those who migrated early retain their positions and changes do not differ from those of other immigrants. Among Filipinos, less established cohorts may face greater competition from incoming compatriots, which could explain the more pronounced impact on previous cohorts altogether. If so, a decline in the quality of human capital seems unlikely. Moreover, less established cohorts will tend to move around for jobs or return to their home country, which complicates their tracking across censuses.

6. Californian Labor Market

Since 1920, California has had the largest share of Philippine-born immigrants among the states. By 1940, the vast majority (65 percent) of Filipinos lived in California, which had experienced a fivefold increase of its population since the turn of the century.[16] In consequence, a more distinct analysis of the Californian labor market is warranted, also to evaluate the consistency of the results and to address potential confounders on the national level. There is a substantial literature on the distinction between local and national analyses, since internal migration could mitigate effects or spill these over to other areas. In a brief overview of this debate on labor markets (and crime), Watson & Thompson (2022) consider the impact of technological change, trade and diverging paths of immigrant groups.

6.1. Baseline Model for California

In this section, I consider only Californian residents of foreign origin. For the analyses below, I use this Californian sample and estimate Eq. (1) as above. The same limitations to data and methodology apply.

Table 12 presents the estimates for all outcome variables within the Californian sample, corresponding to the first two columns in each of Tables 3–5. By and large, the estimates support the previous findings that Filipino labor market outcomes were particularly affected by immigration restrictions with the absolute effect in California being of similar size than in the US. Apart from labor force participation the interaction terms, i.e.

---

[16]Other population centers of Filipinos were in Illinois, New York, Oregon, Pennsylvania and Washington. However, only in California Filipinos surpassed more than 1,000 people in 1920 and increased their population share until 1940. Once again, Hawaii is not considered within this analysis.

relative effects, are greater for Californian Filipinos. The relative log occupational income score in California falls by more than the national average of 0.2 log points. Likewise, employment becomes more likely for Californian Filipinos after 1920 with a relative increase around 11 percentage points. For labor force participation, the estimates of ca. 0.083 in columns (5) and (6) are somewhat below those in Table 5, but clearly offset the group's general lower propensity.

The stronger estimates for California alone imply a greater impact of the Johnson-Reed Act on this state than elsewhere or on the national level. This finding is plausible, given its high share of Filipinos, and supports the claim for better opportunities for Filipinos. Looking at changes on the county level may offer additional insights on the spatial impact of the Johnson-Reed Act.

	(1)	(2)	(3)	(4)	(5)	(6)
	Log occupational income score		Employed		In labor force	
Johnson-Reed Act	0.120***	0.0978***	0.106***	0.0920***	-0.0260***	-0.0715***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)	(0.001)
Filipino	-0.346***	-0.340***	-0.0452	-0.0772**	-0.0395***	-0.0383***
	(0.021)	(0.020)	(0.039)	(0.039)	(0.009)	(0.009)
Johnson-Reed Act × Filipino	-0.284***	-0.240***	0.0915**	0.109***	0.0827***	0.0838***
	(0.021)	(0.020)	(0.039)	(0.039)	(0.009)	(0.009)
Age		-0.00112***		-0.00316***		-0.00166***
		(0.000)		(0.000)		(0.000)
Married		0.204***		0.0873***		0.0552***
		(0.001)		(0.001)		(0.001)
Constant	2.948***	2.941***	0.726***	0.826***	0.939***	1.006***
	(0.001)	(0.003)	(0.001)	(0.003)	(0.000)	(0.002)
State controls	No	Yes	No	Yes	No	Yes
N	970,251	970,251	918,987	918,987	1,202,329	1,202,329

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 12: **Regression Results on Labor Market Outcomes for California.** Only prime working age men with foreign birthplace and non-American parents. The pre-period includes 1910 and 1920, whereas 1930 and 1940 form the post-period.

6.2. Across counties

Apart from the state preference, Filipinos predominantly settled in only a few counties; first primarily in the Greater Bay Area, and later in Santa Barbara and Los Angeles. This pattern may emphasize the importance of networks and first settlements. To gain further knowledge on the policy impact on localities, I use the variation in Filipino shares

on the county level over time with the following model:

$$y_{ct} = \beta_0 + \beta_1 JohnsonReed_t + \beta_2 shareFilipino_{c,1910}$$
$$+ \beta_3 JohnsonReed_t \times shareFilipino_{c,1910} + \epsilon_{ct}, \tag{3}$$

where $shareFilipino_{c,1910}$ refers to the share of all Californian Filipinos within county c in 1910. The percentage share of Filipinos in a particular year is held constant over time. Thus, I interpret the coefficients of β_3 as the impact on the foreign-born population's log occupational income score within a county that can be associated with the growth of its Filipino share. All other variables follow the definitions in Appendix Table A.1. Standard errors are clustered at the county level.

Given changes in Filipino shares over time, 1910 may not be convincing as more than half of Filipino migrants to California settled in San Francisco, which had just about 11 percent of their share in 1940. Over the following decades, the Bay Area lost its hegemony as the primary entry port to Los Angeles. Furthermore, the total numbers of Filipinos to California were significantly lower before 1920, and networks only emerging. Therefore, I include specifications with 1920 as year of reference for the same model, while ignoring prior years. This also serves as a first robustness check.

Tables 13–15 report regression estimates on all three main variables. Throughout the specifications, the interaction between a county's share of Filipinos and the passing of the Johnson-Reed Act only becomes highly statistically relevant for log occupational income score with 1920 as the reference year. At a ten percent significance level, the probability for employment is increasing with 1910 as the reference year. The large values emphasize the relatively low shares for many county-year pairs. With the exception of the (yet insignificant) negative interaction coefficients on labor force participation for 1910, the other estimates align with the previous results and demonstrate the spatial impact on dominant Filipino localities.

From the estimations, the 1920 Filipino share seems to impact only the counties' log occupational income scores among the foreign born. To a lesser extent, this assessment pertains to employment after 1910, which may also attribute to the results in the baseline model in Table 3. The changes in Filipino strongholds provide a fitting explanation for these findings.

7. Robustness

To test the validity of my results, I run several robustness checks. First, I estimate the baseline results for other countries without temporary exemptions from immigration restrictions. Japan and China, the two largest initial source countries of Asian immigration, serve as natural comparison groups.[17] I further check for the patterns for immigrants from (otherwise excluded) Canada and Mexico, as they were the largest among the unrestricted countries throughout the entire period. For all estimations, I exclude Filipinos.

---

[17]The data continue to include only years until 1940, which means that revisions of the Page Act and the Chinese Exclusion Act have not had materialized yet.

Reference year	(1)	(2)	(3)	(4)
		Log occupational income score		
	1910		1920	
Johnson-Reed Act	-0.00314	-0.0672	0.0827***	0
	(0.020)	(0.074)	(0.020)	(.)
% of Filipinos in 1910	12114.9***	14193.7***		
	(42.540)	(1422.544)		
Johnson-Reed Act × % of Filipinos in 1920	-100.8	-92.15		
	(85.080)	(90.178)		
% of Filipinos in 1920			75.86***	82.23***
			(1.053)	(17.669)
Johnson-Reed Act × % of Filipinos in 1910			-5.488***	-5.647***
			(1.580)	(1.923)
(mean) Age		0.00884		0.00203
		(0.006)		(0.006)
(mean) Married		-0.180		-0.0972
		(0.144)		(0.276)
Constant	1.622***	1.128***	2.722***	2.744***
	(0.012)	(0.222)	(0.012)	(0.258)
Observations	232	232	174	174

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 13: **Panel Analysis Estimates on Log Occupational Income Score for Californian Counties.** The estimates are for men in prime-working age (15–65 years), following Eq. (3). Johnson-Reed Act applies to census years 1930 and 1940.

Almost all of the estimates listed in Appendix Tables D.1–D.5 are of statistical relevance, but none of the panels shows the consistency of results for Filipinos. The interaction estimates on Chinese immigrants' relative occupational income score in Table D.1 is mostly negative, however of small magnitude, when compared within the foreign-born population. In contrast, Table D.2 reports a positive relative growth for the same variable. Both estimates differ from the results for Filipinos, as one would predict. It is possible that the earlier introduction of immigration restrictions on China have substantial ramifications on the sign and size of the estimates. However, in line with the large relative impacts on Filipinos found above, I consider these estimates as support for my previous results that a reduction of similar workers over time benefits incumbent immigrant workers of the same group.

In contrast, the estimates differ for unrestricted Canadians and Mexicans, at least in terms of log occupational income scores and employment status (Tables D.3 and D.4). Estimated relative occupational income scores are positive for Canada, whereas they are negative for Mexicans. Apart from employment status, the estimates for Mexicans mirror

	(1)	(2)
	Employed	
Reference year	1910	
Johnson-Reed Act	0.0596***	0.123**
	(0.016)	(0.050)
% of Filipinos in 1910	1006.3***	-115.5
	(33.191)	(1295.418)
Johnson-Reed Act × % of Filipinos in 1910	84.34*	71.75*
	(49.787)	(41.521)
(mean) Age		-0.00760
		(0.005)
(mean) Married		0.0923
		(0.121)
Constant	0.556***	0.929***
	(0.009)	(0.274)
Observations	174	174

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 14: **Panel Analysis Estimates on Log occupational income score for Californian Counties.** The estimates are for men in prime-working age (15–65 years), following Eq. (3). Johnson-Reed Act applies to census years 1930 and 1940. An estimation, which uses 1920 as the reference year would lack a pre-period and is thus not considered.

the outcomes for Filipinos, however they are smaller in magnitude, perhaps because back-and-forth migration was less expensive for Mexicans.

Apparently, Canadians were able to avoid occupational downgrading after the Johnson-Reed Act, but Mexicans were worse off. The impact on Canadians' employment status and labor force participation is minor. When compared within the foreign-born population, the additional effect of the Johnson-Reed Act is small, but of similar sign for log occupational income score and labor force participation. The estimates on employment status are ambiguous.

In line with the previous estimates, Cubans are also disadvantaged in their log occupational income scores and see a decline by about 0.1 log points. The magnitude is larger than for the other groups discussed, but still only about half of that for Filipinos. For employment status, the estimates are about the same magnitude, but again smaller for labor force participation.

In comparison to other American immigrants, Cubans have to cross the Straits of Florida to migrate and return home, which makes the endeavor more costly. Hence, it seems plausible that Cubans are more impacted by the Johnson-Reed Act (at least in their income), although being exempt, than other immigrant groups, that is apart from Filipinos. Also, the greater relative effect on Filipinos underlines their prominent position as exempt and transcontinental immigrants.

	(1)	(2)	(3)	(4)
		Labor force participation		
Reference year	1910		1920	
Johnson-Reed Act	-0.0381***	0.0195	-0.0532***	0
	(0.012)	(0.030)	(0.014)	(.)
% of Filipinos in 1910	432.8***	159.6		
	(24.382)	(1122.218)		
Johnson-Reed Act × % of Filipinos in 1910	-6.474	-10.26		
	(48.764)	(45.690)		
% of Filipinos in 1920			5.273***	2.974
			(0.421)	(10.518)
Johnson-Reed Act × % of Filipinos in 1920			0.688	0.610
			(0.631)	(0.831)
(mean) Age		-0.00599		-0.00281
		(0.004)		(0.004)
(mean) Married		0.00789		0.0303
		(0.102)		(0.158)
Constant	0.855***	1.104***	0.897***	0.966***
	(0.006)	(0.233)	(0.009)	(0.173)
Observations	232	232	174	174

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 15: **Panel Analysis Estimates on Labor Force Participation for Californian Counties.** The estimates are for men in prime-working age (15–65 years), following Eq. (3). Johnson-Reed Act applies to census years 1930 and 1940.

Overall, although the direction and size of the estimates differ across these immigrant groups, they are in line with the economic theory presented. If Canadians are better substitutes for the native population than other immigrants, they might not face the same degree of competition from their countrymen as Filipinos and Mexicans. The same native language, similar denominations, and presumably less discrimination would argue for a high degree of substitutability between Canadians and US-Americans. Back-and-forth migration and a more negative migration selection among Mexicans provide further potential explanations.

Until now, I have focused on the average effects for immigrant groups by census years. Additionally, I can test the impact of immigration restrictions by year of immigration. Again, the Johnson-Reed Act distinguishes the treated from the untreated group. Filipinos immigrating after 1924 are compared with their peers in the same immigration cohort. In other words, Filipinos receive the treatment of open borders after 1924 in this scenario. Note, that missing data for immigration years between 1930 and 1935 limits the analysis as well as a comparison with the results above.

The relevant estimations can be found in Appendix Table E.1. It is apparent, that the estimates are smaller than those in Tables 3–5, and even negative for employment status without covariates. While the restrictions largely affect labor market outcomes of those migrating under the stricter policies, there is also a sizable impact on Filipinos entering without restrictions, especially for log occupational income scores. As I have found before, the total effect is not only due to changes in the more recent years within the sample but emphasizes that prior Filipino cohorts also had to adjust.

8. Conclusion

This paper discusses immigration restrictions and their influence on immigrant groups. The differential treatment of Filipinos, who were US nationals in the early twentieth century, allows me to apply a difference-in-differences approach to estimate the policy's effect on their relative labor market outcomes.

Using repeated cross-sectional census data between 1910–1940, I find support for the hypothesis that immigration restrictions did in fact affect Filipinos' labor market outcomes. In comparison to other immigrants, Filipinos' log occupational income scores declined by about 0.2 log points (or 22.1 percent) after restrictions were in place. My estimates for employment status and labor force participation suggest that both increased among Filipinos by around 10 percentage points after the passage of the Johnson-Reed Act.

One possible explanation is that as fewer immigrants entered the US, it became easier for Filipinos to fill job vacancies and join the labor force. The estimated effects are similar for both recent and previous cohorts. According to the results, previous Filipino cohorts were slightly more affected, which may imply that they assimilated more slowly. These estimates are only suggestive because greater changes for Filipinos may also reflect the lower initial values in the early twentieth century. The estimates for recent cohorts could also be mitigated by subsequent restrictive policies on Filipinos, which is consistent with further estimations. Negative selection seems unlikely for both reasons.

Panel data analysis suggests that those Filipino immigrants who can be tracked across census years before and after the passage of the Johnson-Reed Act are unaffected. As in the cross-sectional analysis, the effect on Filipinos' relative log occupational income scores is negative; however, the sign of the estimates on labor force participation is unclear. Generally, the estimates are small and statistically insignificant. Caution is advised because the smaller sample size or significant differences due to the matching method may render these estimates imprecise. In combination with the results from the cross-sectional analysis, this finding may suggest that the brunt is largely borne by less established Filipino immigrants.

The policy effects are particularly strong in California, the traditional destination of Filipinos within the US, and even more so in counties with a high share of Filipinos in 1920, the most recent year before the policy change. In general, these findings are consistent with estimates on the full sample.

The results in this paper highlight the importance of immigration restrictions on the economic outcomes of existing and potential migrants. Furthermore, my findings suggest imperfect substitutability of workers from different source countries, providing evidence on its importance in immigration policy analysis. This suggests the needs of public policy to address groups who might be disproportionally affected by restrictive policies. Further research is needed to investigate the mechanisms.

References

Abramitzky, R., Ager, P., Boustan, L., Cohen, E., & Hansen, C. W. (2023). The effect of immigration restrictions on local labor markets: Lessons from the 1920s border closure. *American Economic Journal: Applied Economics*, *15*, 164–191.
URL https://www.aeaweb.org/articles?id=10.1257/app.20200807&&from=f

Abramitzky, R., & Boustan, L. (2017). Immigration in american economic history. *Journal of Economic Literature*, *55*, 1311–1345.

Abramitzky, R., & Boustan, L. (2022). *Streets of Gold: America's Untold Story of Immigrant Success*. Public Affairs.

Abramitzky, R., Boustan, L., Eriksson, K., Feigenbaum, J., & Pérez, S. (2021). Automated linking of historical data. *Journal of Economic Literature*, *59*, 865–918.

Abramitzky, R., Boustan, L. P., & Eriksson, K. (2012). Europe's tired, poor, huddled masses: Self-selection and economic outcomes in the age of mass migration. *American Economic Review*, *102*, 1832–1856.

Abramitzky, R., Boustan, L. P., & Eriksson, K. (2014). A nation of immigrants: Assimilation and economic outcomes in the age of mass migration. *Journal of Political Economy*, *122*, 467–506.
URL https://www.journals.uchicago.edu/doi/10.1086/675805

Ager, P., & Hansen, C. W. (2017). Closing heaven's door: Evidence from the 1920s u.s. immigration quota acts. *SSRN Electronic Journal*.

Alsan, M., Eriksson, K., & Niemesh, G. (2020). Understanding the success of the know-nothing party. *SSRN Electronic Journal*.

Bailey, M. J., Cole, C., Henderson, M., & Massey, C. (2020). How well do automated linking methods perform? lessons from us historical data.

Beaman, L. A. (2012). Social networks and the dynamics of labour market outcomes: Evidence from refugees resettled in the u.s. *Review of Economic Studies*, *79*, 128–161.

Biavaschi, C., Giulietti, C., & Zenou, Y. (2021). Social networks and (political) assimilation in the age of mass migration. *Available at SSRN 3851123*.

Bonacich, E. (1984). Some basic facts: Patterns of asian immigration and exclusion.

Borjas, G. J. (1985). Changes in cohort quality, and the earnings of immigrants. *Journal of Labor Economics*, *12*, 369–405.

Borjas, G. J. (2014). *Immigration economics*. Harvard University Press.

Chen, J. J. (2015). The impact of skill-based immigration restrictions: The chinese exclusion act of 1882. *Journal of Human Capital*, *9*, 298–328.

Coolidge, C. (1921). Whose country is this?
URL https://digital.library.cornell.edu/catalog/hearth6417403_1366_002

Daniels, R., & Kitano, H. H. L. (1970). *American racism: Exploration of the nature of prejudice*. Prentice Hall.

Goldin, C. (1994). The political economy of immigration restriction in the united states, 1890 to 1921.

Greenwood, M. J., & Ward, Z. (2015). Immigration quotas, world war i, and emigrant flows from the united states in the early 20th century. *Explorations in Economic History*, *55*, 76–96.
URL http://dx.doi.org/10.1016/j.eeh.2014.05.001

Helgertz, J., Price, J. R., Wellington, J., Thompson, K., Ruggles, S., Fitch, C. R., Sobek, M., Hacker, D., Roberts, E., Warren, J. R., Nelson, M., Boustan, L., Abramitzky, R., & Feigenbaum, J. (2020a). A new strategy for linking historical censuses: A case study for the ipums multigenerational longitudinal panel.
URL https://doi.org/10.18128/IPUMS2020-03

Helgertz, J., Ruggles, S., Warren, J. R., Fitch, C. A., Goeken, R., Hacker, J. D., Nelson, M. A., Price, J. R., Roberts, E., & Sobek, M. (2020b). Ipums multigenerational longitudinal panel: Version 1.0 [dataset].
URL https://doi.org/10.18128/D016.V1.0

Higham, J. (1988). *Strangers in the Land*. Rutgers University Press, 2nd ed.

Hutchinson, E. P. (1981). *Legislative history of American immigration policy, 1798-1965*. University of Pennsylvania Press. KF4805.81981.
URL https://go.exlibris.link/snw34Wr5

Long, J., Medici, C., Qian, N., & Tabellini, M. (2022). The impact of the chinese exclusion act on the u.s. economy.
URL https://www.hbs.edu/ris/Publication%20Files/23-008_ff452f33-bb64-4e13-82a0-89dce7acfeca.pdf

Massey, C. G. (2016). Immigration quotas and immigrant selection. *Explorations in Economic History*, *60*, 21–40.
URL http://dx.doi.org/10.1016/j.eeh.2015.11.001

Melendy, H. B. (1974). Filipinos in the united states. *Pacific Historical Review*, *43*, 520–547.

Ngai, M. M. (1999). The architecture of race in american immigration law: A reexamination of the immigration act of 1924. *Journal of American History*, *86*, 67–92.

Okrent, D. (2020). *The guarded gate: bigotry, eugenics, and the law that kept two generations of Jews, Italians, and other European immigrants out of America*. Scribner.

Ottaviano, G. I. P., & Peri, G. (2012). Rethinking the effect of immigration on wages. *Journal of the European Economic Association*, *10*, 152–197.

Paik, A. N. (2020). *Bans, walls, raids, sanctuary: Understanding US immigration for the twenty-first century*. Univ of California Press.

Posadas, B. M. (1999). *The Filipino Americans*. Greenwood Publishing Group.

Ruggles, S., Flood, S., Foster, S., Goeken, R., Pacas, J., Schouweiler, M., & Sobek, M. (2021). Ipums usa: Version 11.0 [dataset].
URL https://doi.org/10.18128/D010.V11.0

Shah, S. (2021). *The Next Great Migration: The Beauty and Terror of Life on the Move*. Bloomsbury Publishing.

Sharma, M. (1984). The philippines: A case of migration to hawaii, 1906 to 1946.

Sobek, M. (1996). Work, status, and income: Men in the american occupational structure since the late nineteenth century. *Social Science History*, *20*, 169–207.
URL https://www.jstor.org/stable/1171236

Spitzer, Y., & Zimran, A. (2018). Migrant self-selection: Anthropometric evidence from the mass migration of italians to the united states, 1907 – 1925. *Journal of Development Economics*, *134*, 226–247.
URL https://doi.org/10.1016/j.jdeveco.2018.04.006

Steinmayr, A. (2021). Contact versus exposure: Refugee presence and voting for the far right. *The Review of Economics and Statistics*, *103*, 310–327.
URL https://doi.org/10.1162/rest_a_00922

Tabellini, M. (2020). Gifts of the immigrants, woes of the natives: Lessons from the age of mass migration. *Review of Economic Studies*, *87*, 454–486.

Ward, Z. (2017). Birds of passage: Return migration, self-selection and immigration quotas. *Explorations in Economic History*, *64*, 37–52.

Watson, T., & Thompson, K. (2022). *The Border Within: The Economics of Immigration in an Age of Fear*. University of Chicago Press.

Xie, B. (2017). The effects of immigration quotas on wages, the great black migration, and industrial development.

Yang, J. L. (2020). *One Mighty and Irresistible Tide: The Epic Struggle Over American Immigration, 1924-1965*. WW Norton Company.

Appendix

A. Variables

Variable	IPUMS Variable	Notes
Male	SEX	I assigned a binary variable to men.
Age	AGE	No changes made.
Age bracket	AGE	I assigned binary variables for each age cohort by decade.
Married	MARST	I assigned a binary variable to married people. For the full census data, persons under age 12 are assigned single status by IPUMS.
Skill	OCC1950	I categorize occupations in the data based on the presumed skill level: low, medium, high. Further, I crosscheck with classes of occupations used by Massey (2016).
Urban	URBAN	I assigned a binary variable to urban places.
Year of immigration	YRIMMIG	Year of immigration in the 1910–1920 censuses reports the year of first arrival in the US. The 1900 census did not account for back-and-forth migration. I recoded zero values as missing.
Years in the US	YRSUSA1	Constructed by IPUMS from YRIMMIG.
In labor force	LABFORCE	For 1910, employment status refers to the day of the census, April 15. For 1930, the previous regular working day is considered; in 1940, March 24–30 serves as the relevant reference week. I construct a binary variable, which includes all employed and unemployed people.
Employed	EMPSTAT	See notes on *In labor force* on employment status. For 1940, one hour of paid work, 15 hours of unpaid family work or temporary absence from a job designate employment. I construct a binary variable, which represents whether a person was employed. Exclusion of institutional inmates makes data comparable across the censuses.
Log occupational income score	OCCSCORE	Constructed by IPUMS. The occupational income score represents the media total income in hundreds of 1950 dollars. Throughout the years included in this study, the 1950 occupational income data are considered. I construct the log occupational income score by taking the natural logarithm of the provided data.

Table A.1: **Variables Used in Analyses.**

B. Descriptive Statistics

	(1) Filipinos mean/sd	(2) Others mean/sd	(3) Filipinos mean/sd	(4) Others mean/sd	(5) Filipinos mean/sd	(6) Others mean/sd	(7) Filipinos mean/sd	(8) Others mean/sd	(9) Filipinos mean/sd	(10) Others mean/sd
Male	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00
Age	40.14 12.16	47.04 11.19	29.90 7.99	35.57 10.79	27.71 6.80	34.13 9.68	25.31 5.58	31.26 9.64	30.63 9.56	38.46 13.32
Married	0.37 0.48	0.75 0.43	0.24 0.42	0.59 0.49	0.18 0.39	0.55 0.50	0.07 0.26	0.47 0.50	0.19 0.39	0.55 0.50
Year of immigration	1892.03 9.15	1887.13 9.61	1906.88 2.64	1905.84 2.72	1916.14 2.95	1913.81 2.56	1925.88 2.53	1924.31 2.62	1935.00 0.00	1935.00 0.00
Years in the US	23.98 9.70	27.88 10.36	10.23 5.39	9.21 5.58	4.51 2.69	6.73 1.94	. .	. .	. .	. .
In labor force	0.93 0.25	0.94 0.23	0.94 0.25	0.96 0.19	0.92 0.28	0.96 0.20	0.93 0.25	0.94 0.23	0.73 0.45	0.83 0.37
Employed	0.78 0.42	0.76 0.42	0.84 0.37	0.81 0.39	0.85 0.36	0.85 0.36	0.85 0.36	0.84 0.37	0.65 0.48	0.73 0.44
Log occupational income score	2.74 0.58	3.12 0.42	2.63 0.59	3.11 0.37	2.58 0.54	3.12 0.36	2.45 0.47	3.13 0.37	2.65 0.58	3.22 0.47
Skill group	1.10 0.31	1.19 0.40	1.08 0.28	1.14 0.35	1.08 0.27	1.14 0.36	1.04 0.20	1.16 0.38	1.11 0.31	1.34 0.47
N	764	7,047,161	3,055	6,278,403	6,733	2,522,756	11,658	807,021	353	81,591

Table B.1: **Summary Statistics of Key Variables for Foreign-born Population by Census Year.**
This table considers the full foreign-born population.

Year of immigration	Before 1900		1900–1910		1910–1920		1920–1930		1930–1940	
	(1) Filipinos mean/sd	(2) Others mean/sd	(3) Filipinos mean/sd	(4) Others mean/sd	(5) Filipinos mean/sd	(6) Others mean/sd	(7) Filipinos mean/sd	(8) Others mean/sd	(9) Filipinos mean/sd	(10) Others mean/sd
Male	0.87	0.54	0.90	0.58	0.93	0.55	0.94	0.51	0.64	0.48
	0.34	0.50	0.31	0.49	0.25	0.50	0.23	0.50	0.48	0.50
Age	42.22	51.20	27.96	34.01	27.01	31.91	24.61	28.42	25.27	35.98
	15.81	14.88	10.32	13.31	7.33	12.85	6.57	13.17	12.26	17.53
Married	0.28	0.66	0.15	0.57	0.12	0.55	0.05	0.45	0.19	0.47
	0.45	0.48	0.36	0.50	0.33	0.50	0.22	0.50	0.40	0.50
Year of immigration	1891.24	1884.60	1906.83	1905.90	1916.29	1914.32	1926.08	1924.61	1935.00	1935.00
	10.11	11.90	2.67	2.72	2.97	2.77	2.55	2.66	0.00	0.00
Years in the US	29.09	33.39	16.87	13.18	11.16	10.57	3.92	5.39	.	.
	11.19	13.25	7.80	8.45	4.98	5.35	2.55	2.66	.	.
In labor force	0.82	0.53	0.82	0.62	0.86	0.57	0.89	0.55	0.43	0.49
	0.38	0.50	0.38	0.49	0.35	0.49	0.32	0.50	0.50	0.50
Employed	0.70	0.43	0.71	0.53	0.80	0.53	0.81	0.50	0.39	0.44
	0.46	0.50	0.45	0.50	0.40	0.50	0.39	0.50	0.49	0.50
Log occupational income score	2.70	3.04	2.59	3.02	2.53	3.01	2.42	2.94	2.68	3.03
	0.53	0.51	0.53	0.46	0.48	0.46	0.41	0.54	0.60	0.60
N	1,469	19,261,564	6,460	13,698,419	14,196	6,475,335	27,278	2,602,687	838	258,426

Table B.2: **Summary Statistics of Key Variables for Foreign-born Population by Year of Immigration.** This table considers men between 15 and 65 years of age. Data for the 1940 census only consider those who migrated five years prior to the census.

C. Alternative Regressions

C.1. Excluding 1920 from the Base Model

	(1)	(2)	(3)	(4)	(5)	(6)
			Labor force participation			
Johnson-Reed Act	-0.0295***	-0.0518***	-0.0479***	-0.148***	-0.00378***	-0.00514***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Filipino	-0.0697***	-0.0629***	-0.113***	-0.0973***	-0.0378***	-0.0303**
	(0.012)	(0.011)	(0.020)	(0.019)	(0.014)	(0.012)
Johnson-Reed Act × Filipino	0.0780***	0.0756***	0.123***	0.0950***	0.0257*	0.0135
	(0.012)	(0.011)	(0.021)	(0.019)	(0.014)	(0.013)
Age		-0.00210***		0.00178***		-0.00184***
		(0.000)		(0.000)		(0.000)
Married		0.0726***		0.0278***		0.0602***
		(0.000)		(0.000)		(0.000)
Constant	0.959***	1.015***	0.964***	0.917***	0.957***	1.009***
	(0.000)	(0.002)	(0.000)	(0.005)	(0.000)	(0.002)
State controls	No	Yes	No	Yes	No	Yes
N	15,327,632	15,327,632	1,869,082	1,869,082	9,218,632	9,218,632

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C.1: **Repeated Cross-sectional Regression Results on Labor Force Participation, Excluding 1920.** The estimates are for men of prime-working age (15–65 years). These estimates exclude the year 1920 to provide a robustness check for the results in Table 5.

D. Robustness Checks on Other Countries

	(1)	(2)	(3)	(4)	(5)	(6)
	Log occupational income score		Employed		In labor force	
Johnson-Reed Act	0.0684***	0.0793***	0.0765***	0.0909***	-0.0231***	-0.0558***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Chinese	-0.234***	-0.107***	-0.0243***	0.0207***	-0.0127***	0.0233***
	(0.003)	(0.003)	(0.002)	(0.002)	(0.001)	(0.001)
Johnson-Reed Act × Chinese	-0.0102***	-0.0305***	0.00839***	-0.0405***	-0.0439***	-0.0605***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.002)	(0.002)
Age		-0.000871***		-0.00331***		-0.00172***
		(0.000)		(0.000)		(0.000)
Married		0.119***		0.0919***		0.0687***
		(0.000)		(0.000)		(0.000)
Constant	3.100***	3.114***	0.754***	0.896***	0.953***	1.002***
	(0.000)	(0.003)	(0.000)	(0.003)	(0.000)	(0.001)
State controls	No	Yes	No	Yes	No	Yes
N	17,002,368	17,002,368	15,281,035	15,281,035	20,950,262	20,950,262

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table D.1: **Cross-sectional Estimates for Chinese Immigrants.** Filipinos and American immigrants are dropped from the sample.

	(1)	(2)	(3)	(4)	(5)	(6)
	Log occupational income score		Employed		In labor force	
Johnson-Reed Act	0.0675***	0.0784***	0.0761***	0.0902***	-0.0236***	-0.0565***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Japanese	-0.475***	-0.351***	0.0326***	0.0243***	-0.00562***	-0.000483
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
Johnson-Reed Act × Japanese	0.111***	0.0981***	0.0680***	0.0506***	0.0312***	0.0247***
	(0.003)	(0.003)	(0.002)	(0.002)	(0.001)	(0.001)
Age		-0.000872***		-0.00330***		-0.00172***
		(0.000)		(0.000)		(0.000)
Married		0.119***		0.0918***		0.0687***
		(0.000)		(0.000)		(0.000)
Constant	3.102***	3.115***	0.753***	0.896***	0.953***	1.002***
	(0.000)	(0.003)	(0.000)	(0.003)	(0.000)	(0.001)
State controls	No	Yes	No	Yes	No	Yes
N	17,002,368	17,002,368	15,281,035	15,281,035	20,950,262	20,950,262

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table D.2: **Cross-sectional Estimates for Japanese Immigrants.** Filipinos and American immigrants are dropped from the sample.

	(1)	(2)	(3)	(4)	(5)	(6)
	Log occupational income score		Employed		In labor force	
Johnson-Reed Act	0.0653***	0.0775***	0.0755***	0.0865***	-0.0238***	-0.0579***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Canadian	0.0390***	0.0779***	-0.00997***	-0.00514***	-0.00522***	-0.0101***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.000)	(0.001)
Johnson-Reed Act × Canadian	0.00141*	-0.000182	0.00458***	-0.00586***	-0.0132***	-0.0120***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)
Age		-0.000783***		-0.00293***		-0.00146***
		(0.000)		(0.000)		(0.000)
Married		0.121***		0.0958***		0.0716***
		(0.000)		(0.000)		(0.000)
Constant	3.099***	3.122***	0.755***	0.836***	0.954***	0.976***
	(0.000)	(0.003)	(0.000)	(0.003)	(0.000)	(0.001)
State controls	No	Yes	No	Yes	No	Yes
N	18,468,714	18,468,714	16,673,366	16,673,366	22,796,428	22,796,428

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table D.3: **Cross-sectional Estimates for Canadian Immigrants.** Filipinos and other American immigrants are dropped from the sample.

	(1)	(2)	(3)	(4)	(5)	(6)
	Log occupational income score		Employed		In labor force	
Johnson-Reed Act	0.0653***	0.0784***	0.0755***	0.0892***	-0.0238***	-0.0568***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Mexican	-0.323***	-0.211***	0.0245***	-0.0102***	-0.0299***	-0.0247***
	(0.001)	(0.002)	(0.001)	(0.002)	(0.000)	(0.001)
Johnson-Reed Act × Mexican	-0.0608***	-0.0594***	-0.0500***	-0.0601***	0.0224***	0.0138***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age		-0.000835***		-0.00323***		-0.00162***
		(0.000)		(0.000)		(0.000)
Married		0.117***		0.0919***		0.0697***
		(0.000)		(0.000)		(0.000)
Constant	3.099***	3.130***	0.755***	0.851***	0.954***	0.984***
	(0.000)	(0.003)	(0.000)	(0.003)	(0.000)	(0.001)
State controls	No	Yes	No	Yes	No	Yes
N	17,667,704	17,667,704	15,858,405	15,858,405	21,725,219	21,725,219

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table D.4: **Cross-sectional Estimates for Mexican Immigrants.** Filipinos and other American immigrants are dropped from the sample.

| | (1) | (2) | (3) | (4) | (5) | (6) |
	Log occupational income score		Employed		In labor force	
Johnson-Reed Act	0.0653***	0.0786***	0.0755***	0.0910***	-0.0238***	-0.0557***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Cuban	0.0754***	0.0343***	-0.0154***	0.0138**	-0.0247***	-0.0125***
	(0.003)	(0.004)	(0.006)	(0.006)	(0.002)	(0.002)
Johnson-Reed Act × Cuban	-0.125***	-0.106***	-0.0459***	-0.0674***	-0.0222***	-0.0285***
	(0.005)	(0.005)	(0.006)	(0.006)	(0.003)	(0.003)
Age		-0.000853***		-0.00331***		-0.00172***
		(0.000)		(0.000)		(0.000)
Married		0.119***		0.0917***		0.0687***
		(0.000)		(0.000)		(0.000)
Constant	3.099***	3.127***	0.755***	0.854***	0.954***	0.987***
	(0.000)	(0.003)	(0.000)	(0.003)	(0.000)	(0.001)
State controls	No	Yes	No	Yes	No	Yes
N	17,045,528	17,045,528	15,314,223	15,314,223	20,992,312	20,992,312

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table D.5: **Cross-sectional Estimates for Cuban Immigrants.** Filipinos and other American immigrants are dropped from the sample.

E. Restricted and Unrestricted Immigrants

	(1)	(2)	(3)	(4)	(5)	(6)
	Log occupational income score		Employed		In labor force	
Johnson-Reed Act	0.0589***	-0.0451***	0.0228***	-0.0107***	-0.0495***	-0.0154***
	(0.000)	(0.001)	(0.000)	(0.001)	(0.000)	(0.000)
Filipino	-0.529***	-0.445***	0.0453***	-0.0283***	-0.0298***	-0.0281***
	(0.006)	(0.005)	(0.004)	(0.004)	(0.002)	(0.002)
Johnson-Reed Act × Filipino	-0.111***	-0.0579***	-0.0126***	0.0256***	0.0628***	0.0572***
	(0.006)	(0.006)	(0.004)	(0.004)	(0.003)	(0.003)
Age		-0.000942***		-0.00332***		-0.00174***
		(0.000)		(0.000)		(0.000)
Married		0.119***		0.0914***		0.0683***
		(0.000)		(0.000)		(0.000)
Constant	3.117***	3.118***	0.795***	0.896***	0.953***	1.003***
	(0.000)	(0.003)	(0.000)	(0.003)	(0.000)	(0.001)
State controls	No	Yes	No	Yes	No	Yes
N	17,045,421	17,045,421	15,327,632	15,327,632	20,999,413	20,999,413

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table E.1: **Repeated Cross-sectional Regression Results (Migrated after Johnson-Reed Act).** Here, the post-period only applies to immigrants after 1924.