The Impact of the Chinese Exclusion Act on the U.S. Economy

(Incomplete)

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Abstract

This paper studies the impact of the Chinese Exclusion Act, which banned Chinese immigration to the United States after 1882, across U.S. counties between 1870 and 1940. We find that the Act reduced labor supply for both the Chinese and other groups (i.e., white and non-white natives and immigrants). The drop in Chinese and non-Chinese labor supply was driven by both skilled and unskilled workers, and occurred across all major economic sectors. The Act lowered income for all workers, and caused a sharp contraction in manufacturing, mining and agriculture. The results imply that Chinese and other workers were complements in economic production and the exclusion of the Chinese had a negative impact on economic development of the Western United States. Many negative effects lasted until at least 1940.

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1 Introduction

Immigration has long been one of the most important and controversial policy concerns in the United States, as well as many other countries. On the one hand, immigrants can provide labor, skills and ideas that can help promote growth. On the other hand, immigrants can crowd out economic opportunities for natives. The latter set of concerns has induced the U.S. and many other countries in the world to apply a variety of measures to restrict immigration over time. Our study examines the economic impact of one of the most extreme ones – the 1882 Chinese Exclusion Act. Motivated both by the worry that Chinese workers took away jobs and reduced the wages of white workers and by xenophobia, the U.S. banned individuals born in China from entering the United States and existing immigrants from re-entry or obtaining citizenship.[1] The Act was the first U.S. policy that banned voluntary immigration of an entire group, and effectively kept Chinese immigration at negligible levels until the Immigration and Nationality Act of 1965.[2]

The ban was known to have significantly reduced the size of the Chinese population in the U.S., since many wished to re-unite with their families who were still in China. However, the impact of the decline of Chinese population on other workers and economic production is ambiguous *ex ante*. On the one hand, if Chinese and other workers are substitutes, then the exodus of the Chinese should increase demand for other workers, raising their employment and wages. This was the view held by supporters of the Exclusion Act. On the other hand, if the two types of workers are complements, then

[1] In 1898, the landmark case *United States v. Wong Kim Ark, 169 U.S. 649* set the precedent for individuals born in the U.S. to be citizens.

[2] The closest other law is the 1807 Act Prohibiting Importation of Slaves banned the importation of new slaves into the United States.

the exodus of the Chinese can worsen the economic outcomes of other workers and reduce output and productivity across U.S. counties. This is the view implied by recent historians, who point out that the Chinese were notable in their success in small-scale manufacturing (e.g., textiles) and complex agricultural land improvement projects (e.g., draining swamps), which created economic opportunities for others (Lee, 2003; Pfaelzer, 2008). The effect of the Chinese Exclusion Act on the U.S. economy is thus an open empirical question.

The goal of our paper is to provide novel and rigorous empirical evidence on the economic impact of the Exclusion Act. To the best of our knowledge, we are the first to evaluate the economic effects of the exclusion of the Chinese. We implement a *difference-in-differences* (DD) strategy, and compare outcomes in counties that had Chinese population shares above and below the sample median in 1880, before and after the 1882 Exclusion Act. We use historical censuses to construct our data set, which includes each decade during 1870-1940, except for 1890 because the Census of Population was destroyed in a fire. Our analysis focuses on states in the Western United States where Chinese immigrants were concentrated.

The empirical strategy assumes that the ban of Chinese immigrants results in a higher loss of Chinese workers – i.e., a higher-intensity treatment effect – for counties with more Chinese immigrants prior to the ban. County fixed effects control for time invariant differences across counties. State-decade fixed effects control for changes over time that affect all counties within a state similarly. In addition, the baseline estimates control for whether a county is connected to a railroad and for whether there was ever mine in the county. These controls alleviate concerns about the baseline being confounded by other county-specific omitted factors, such as local economic conditions or opportunities, even absent changes in Chinese immigration.

The intuition behind our empirical strategy, which is similar in spirit to recent work

by Abramitzky et al. (2022), is that the Exclusion Act led to a higher contraction in Chinese immigration in counties with more Chinese immigrants before 1882. The key identifying assumption is that, conditional on county and state by decade fixed effects, economic outcomes, such as labor force participation, manufacturing and agricultural productivity, and earnings, would have evolved similarly in counties with a high and a low historical presence of Chinese. In our preferred specification, we relax this assumption by controlling for whether a county is connected to the railroads, and whether it ever had a mine during 1870–1940 interacted with decade fixed effects. We also examine the dynamic effects and show that there is no pre-trend in any of the main outcomes. One possible confounder is related to geographic relocation. For example, if the Act induced labor or manufacturing establishments to move from counties with high pre-Act Chinese population shares to counties with low pre-Act Chinese population shares, then our estimates might be confounded by such relocation. To address this, we examine the impact on adjacent counties or other counties in the same state.[3]

We begin by examining the impact of the Exclusion Act on Chinese population and Chinese workers. Consistent with historical narratives that the Act stopped new immigration from China and caused many Chinese workers in the U.S. to return to China to re-unite with their families or to move to other countries where immigration from China was permitted, we find that the Act dramatically reduced Chinese population size. The decline in Chinese labor supply occurred in all major sectors – manufacturing, mining, railroads and agriculture – and involved both skilled and unskilled workers. Moreover, the Act led to a steep decline in the occupational income scores of Chinese workers.[4]

Perhaps more surprisingly, the Act had similarly negative effects for all workers,

[3]We perform additional robustness checks, which are described below after presenting the main results.

[4]The U.S. Census of Population did not collect wages prior to 1940. Thus, following the literature (Abramitzky et al., 2014), we use occupational income scores, which assign to an individual the median income of his job category in 1950 and are often interpreted as a proxy for life-time income.

including white ones. The Act reduced the size of the white and total population, and the labor supply of white and all workers in all sectors and across all skill levels. In addition, and as for Chinese workers, the Act reduced earnings of white and all workers. We do not find any positive effect of the Act on any group in the economy. In short, our analysis indicates that everyone – including white workers – was worse off because of the Act. Our estimates are quantitatively large: comparing counties with 1880 Chinese share above the median to those with the share below the median, the former experienced a decline by approximately 38%, 44%, and 6% in, respectively, population, labor force participation, and occupational income scores among whites. Examining the dynamics of our results, we document that the negative effects are persistent during the 60 years after the Act. Thus, our main results should be interpreted as both the short and long-run effects.

To shed light on the drivers of this dramatic demographic and economic change, we examine measures of aggregate production and economic performance from multiple sources. We find that the Act reduced manufacturing output, the number of manufacturing establishments, and the number of mines. This suggests that the depopulation triggered by the Act led to the closure of entire manufacturing and mining establishments, which is consistent with our finding that the Act reduced the number of people working in all sectors and of all skill levels.

We also find that the Act reduced the average value of agricultural inputs – farm land, livestock and farm machinery. It also reduced the number of horses per farm, during a time when horses were the main mode for heavy farm work such as plowing (Hornbeck and Naidu, 2014). One interpretation for these results is that depopulation reduced demand for agricultural goods (food), thereby lowering the value of agricultural inputs – land, livestock and capital. Another possibility, not in contrast with the previous one, is that the Act reduced the quality of farm land, since Chinese workers

were important contributors to complex land improvement projects (e.g., drainage of swamps).[5]

Taken together, the results show that the Chinese Exclusion Act did not lead to any tangible improvement in the economic circumstances of other workers. In fact, the opposite happened, as the loss of skilled and unskilled Chinese workers triggered a cascade of negative economic effects for the economy at large. Our findings imply that Chinese labor was a complement to the labor of natives and other groups. The magnitudes of our findings might be specific to the context of our study. However, the key insight that the loss of economically productive immigrant labor can lead to negative economic consequences if immigrants complement natives is generalizable.

Our paper is the first to provide rigorous empirical evidence to show that reducing immigration worsens the economic outcomes of native workers and the overall economy in any context. As such, we add to the large empirical literature studying the impact of immigration on a wide range of outcomes, with some papers finding negligible or positive effects on native outcomes (e.g., Card (2001); Card 2009; Ottaviano and Peri 2012; Chassambouli and Peri 2015; Foged and Peri 2016; Sequeira et al. 2020; Tabellini, 2020) and others finding negative effects (e.g., Borjas 2003; Borjas 2005).

Understanding the impacts of immigration restriction is particularly informative currently, given the recent wave of anti-foreign sentiment in the United States and Europe. In this respect, our work adds to a growing literature that evaluates the impact of immigration restrictions on internal migration, natives' outcomes, and on the aggregate economy (e.g., Abramitzky et al., 2022; Clemens et al., 2018; Massey, 2016). Finally, our paper is related to a recent strand of the literature that analyzes the effects of the Chinese Exclusion Act on the economic and social assimilation of Chinese immigrants and their descendants (Chen and Xie, 2020; Chen, 2015).

[5] Chang (2003) discusses instances of Chinese workers draining swamps and conducting other engineering activities, often along railroads, that improved farmland.

The rest of the paper is organized as follows: Section 2 discusses the historical background. Section 3 presents the empirical strategy and discusses the data and econometric framework. Section 4 describes the data. Section 5 presents the results. Section 6 offers concluding remarks.

2 Historical Background

Chinese immigrants first arrived in large numbers to the United States in the 1850s during California's gold rush. From 1870 to 1880, a total of 138,941 Chinese immigrants entered the U.S., which made up around 4.3% of all immigrants during the period (Lee, 2003, p.25). Like other immigrants, the Chinese immigrants sought better economic opportunities and a chance to escape political chaos at home. In China, opportunities for upward mobility were limited by the official examination system and widespread corruption (Chang 2003, pp. 7-9). The Opium Wars (1839-1842, 1856-1860) and the Taiping Rebellion (1850-1864) furthered caused tremendous suffering – famine, poverty – and turmoil (Spence 1990, pp. 168-175). Although Qing government opposed its citizens leaving the country, it did little to stop emigration in practice. Emigrants left mostly through the southern port of Guangzhou (Canton) and arrived to California.

To come to America, most Chinese immigrants were in one way or another dependent on the Six Companies, an organization of Chinese merchants in America (Spence 1990, p. 205). In exchange for organization fees, the Six Companies would arrange for a number of services for Chinese immigrants, including temporary lodging, basic healthcare, and assurances that their remains would be sent back to China in the event of an untimely death. In addition, for those who did not have the money to make the voyage to America, which was around six times the average Chinese per capita income at the time, the Six Companies would loan them the money under a form of labor debt

contract (Cloud and Galenson 1987,Galenson 1984).[6] It was common for families and villages to pool together their money to send one person to the United States, who would then use the saved earning to bring over other (Chang 2003, p. 18). The organization of the emigration process led Chinese immigrants in the U.S. to having strong social networks, which likely contributed to their success in building businesses.

Since the main port of entry in the United States on the West Coast was San Francisco, most Chinese lived in California and gradually diffused to other nearby states. The Chinese made up around a quarter of all immigrants in California in 1880, followed by the Irish (22%) and the Germans (14%). Most immigrants from China were men. Many were young and single. Those who were married did not bring their spouses with them when they first arrived.

In 1880, about a quarter of the Chinese were employed in some sort of mining. Agriculture and laundering services were the next largest employers of Chinese people, accounting for another ten percent each. Although initially many Chinese came to the US to work on the construction of the First Transcontinental Railroad, its completion in 1869 meant that by 1880 the rail industry only accounted for about 4.5 percent of Chinese employment. Chinese immigrants comprised of both skilled and unskilled workers. They often – but not exclusively – worked in establishments owned and managed by other Chinese immigrants. Chinese manufacturers of shoes and hats, cigars, for example, dominated the sector in the Western U.S. during this period.

The demand for Chinese labor was very high from American employers. They were seen as a valuable and low cost source of skilled and unskilled labor by mining companies. Experience in railroad construction and mining gave Chinese men useful skills for

[6]The Six Companies had an agreement with steamship companies such that the companies would not sell a ship ticket to a Chinese person unless they could produce a certificate from the Six Companies stating that they had repaid their debt. As most Chinese immigrants during this time intended to return home after accumulating some wealth, this was usually a good enough incentive for people to not run away after coming to America (Cloud and Galenson 1987)

other large engineering projects. For example, good at dynamiting and transporting large masses of materials, the Chinese built much of the roads along the north Pacific Coast in the 1870s and 1880s. Chinese workers were able to complete physically arduous and complex tasks such as the drainage of agricultural lands and the construction of other land-improvement infrastructure. These were projects that the U.S. government was previously unable to complete because of the lack of willing and able workers. They also worked in lumber mills and made up a significant portion of the labor force in salmon canneries (Pfaelzer, 2008, p. 140). Chinese businesses and workers were seen a key source of tax revenue for local governments, which had few sources of funds during this period. The Chinese were also strategically taxed higher than other workers (Kanazawa 2005).

Hostility towards the Chinese grew as more and more Chinese arrived and a widespread economic depression during the 1870s made jobs scarce (Pfaelzer, 2008). The Chinese were popularly perceived as unskilled or low skilled labor, and many were concerned that Chinese workers took employment opportunities away from and competed down the wages for other workers. Historians estimate that there were four workers per every job in the 1871 in California, but Chinese workers were producing 50-75% of the state's boots and shoes; and in 1882, 50-75% of farm labor in some counties was Chinese (Chan, 1986, p. 51-78). Much of the concerns focused on the welfare of white native workers, though resentment was also broadly expressed by European immigrants (Chang 2003, pp. 116-7).

The economic concerns were accompanied by xenophobia. Many worried about the influence of Chinese immigrants on American culture. The Chinese were typically not Christian, spoke little English, dressed in traditional Chinese robes, and wore their hair in the traditional Manchu queue as mandated by the Qing dynasty. These stark differences led many Americans to believe that a so-called "Yellow Peril" was threatening

western civilization.[7] There was a widespread belief among Americans that *all* Chinese women were prostitutes. This view was supported by the American establishment. For example, the American Medical Association conducted a study seeking to link Chinese women to higher rates of venereal disease. Despite finding no substantive evidence to support that hypothesis, the association's president still claimed that "... even boys eight and ten years old have been syphilized by these degraded wretches..." (Chang 2003, p. 123).

The combination of economic competition and xenophobic sentiments, exemplified by nativist groups such as the Know-Nothings, led Congress to pass the Chinese Exclusion Act in 1882. This Act barred all Chinese people from entering the United States except under very special circumstances (e.g., official diplomats). In addition to the restrictions on new Chinese immigrants, an amendment to the Act in 1884 expanded its scope, banning people of Chinese descent from entering the country. A further amendment in 1888 prevented those immigrants who had arrived prior to the Act from re-entering the United States.

In practice, these legislative changes meant that no new Chinese could arrive and those who were already in the U.S. could never see their families again, unless if they left the United States. In the U.S., they also faced increasing discrimination both through formal and informal channels. For example, the Act also prevented Chinese immigrants from becoming naturalized citizens in the same way that the right had been offered to European immigrants. Local governments also passed legislation that effectively expropriated the property of the Chinese. There were many instances of mob violence against the Chinese. These forces led many of the Chinese who remained

[7] One early proponent of excluding the Chinese, Senator John F. Miller, in a speech to his fellow senators in 1881, called upon them to: "...[preserve] American Anglo-Saxon civilization without contamination or adulteration ... [from] the gangrene of oriental civilization... Why not discriminate? Why aid in the increase and distribution over ... our domain of a degraded and inferior race, and the progenitors of an inferior sort of men?" (Chang 2003, p. 130)

to live together in urban areas where they could organize and protect themselves. For example, the first "China Town" appeared in 1900 in San Francisco.

The Chinese Exclusion Act was a temporary ten-year measure, and renewed for ten more years in 1892 with the Geary Act, and then renewed indefinitely in 1902. During the early 20th century, growing anti-immigrant sentiment developed to the point where a more far-reaching immigration restriction was passed by Congress: the Immigration Act of 1917 imposed a literacy requirement, and also barred Southeast Asians, South Asians, and Middle Eastern people (those from the so-called "Asiatic Barred Zone") from immigrating to the United States. In 1924, a new ban introduced a quota on immigration, and fully banned Asian immigrants. It was only in 1943, when China became America's ally in World War II, that congress finally repealed the Exclusion Act. But Chinese immigration was still limited to a mere 105 people a year. It was not until the Immigration and Nationality Act of 1965 that Chinese immigrants began to arrive in large numbers again (Lee, 2003, Ch. 3).

3 Empirical Strategy

The Chinese Exclusion Act drastically reduced the number of Chinese living in the United States. This can have positive or negative effects for other workers, depending on the characteristics of the excluded individuals and on the degree of complementarity (or substitutability) between immigrant labor and other workers in the economy. *Ex ante*, this is unclear given the historical evidence. On the one hand, the mainstream perception (among native whites) at the time was that Chinese immigrants were mostly low-skilled labor and competed with other workers. If this was true, then a reduction of Chinese workers should increase economic opportunities for other workers, especially unskilled ones. On the other hand, the Act may have depleted the Western United

States of much needed skilled labor and led to the shuttering of productive enterprises, and cause long term negative economic consequences across many sectors. In other words, Chinese and other workers may have been complements in the economic production of the period, and that the Exclusion Act may have lowered employment and wages of other workers.

Our study aims to capture the net effect of the positive and negative forces. We will examine the population and labor force of Chinese and other workers, and measures of aggregate economic performance in the main sectors.

To estimate the impact of the Chinese Exclusion Act, we implement a *difference-in-differences* (DD) strategy, and compare outcomes in counties that had 1880 Chinese population shares above and below the sample median before and after the 1882 Exclusion Act.[8] The empirical strategy assumes that the ban of Chinese immigrants results in a higher loss of Chinese workers – i.e., a higher intensity treatment effect – for counties with more Chinese immigrants prior to the ban. The baseline specification is the following

$$Y_{ijt} = \alpha + \beta(HighChineseShare_{i,1880} \times 1\{t > 1882\}) + \Gamma X_{ijt} + \varphi_i + \xi_{jt} + \nu_{ijt} \quad (1)$$

where the outcome of interest in county i state j and year t, Y_{ijt}, is a function of: the interaction of a dummy variable that takes the value of one if the 1880 Chinese population share is above or below the sample median, $Chinese_{i,1880}$, and an indicator variable that takes the value of one if the time period is after 1882; a vector of controls, X_{ijt}; county fixed effects, φ_i; and state-year fixed effects, ξ_{jt}. Standard errors are clustered at the county level. To address the fact that county boundaries changed over

[8]The median Chinese share in 1880 was 4%.

time, we follow standard approaches in the literature (Perlman, 2016) to fix them to 1930.

Since our data are observed in each decade (except for 1890), the pre-post comparison of outcomes observed in 1880 or earlier versus those observed in 1900 or later will actually include the effect of all the follow-up legislations that occurred during 1884-1900 discussed in the previous section.[9]

County fixed effects control for time invariant differences across counties, such as distance to the San Francisco port. State-year fixed effects control for changes over time that affect all counties within a state similarly. This addresses the fact that the economic and political evolution differed across states in ways that may have been correlated with both pre-Act Chinese share and the economic outcomes of interest.

In addition, the baseline estimates control for whether a county is connected to a railroad in a given year and whether there was ever a mine in the county during 1870–1940. The latter is a time invariant measure.[10] Thus, we control for its interaction with year fixed effects. These controls address the potential concern that the first waves of Chinese immigrants worked in mining and railroad construction, and that the economic development of these sectors may have affected the outcomes of interest even absent the Act. Moreover, the presence of a railroad can affect long run economic development for many other reasons unrelated to the Act (Donaldson and Hornbeck, 2016; Hornbeck and Rotemberg, 2021).

The main coefficient of interest is β. The identification assumption is that, absent the Act, the outcomes of interest would have evolved along parallel trends between counties with high and low 1880 Chinese population shares. In other words, we assume that conditional on fixed effects and controls, the interaction of 1880 Chinese population

[9]The 1890 U.S. Census was destroyed by a fire.

[10]We were unable to find systematic disaggregated data on the presence of mines that varied over time.

share in the county and the post-1882 dummy variables is uncorrelated with the error term. We will provide evidence to support this assumption after we present our results.

4 Data

Our main source of data are the demographic data from the U.S. decennial censuses for the period from 1870–1940, made available by the Integrated Public Use Microdata Series (IPUMS) (Ruggles et al. 2021). In addition, we use county-aggregates from the Census of Manufacturing and of Agriculture (Haines 2010; Haines and Rhode 2018).

The historical data report each individual's nativity (including that of the parents), country of origin, and race. We define someone to be Chinese if their country of birth is China or if their race is Chinese. Given that Chinese immigrants started arriving in the 1850s, race and country of origin is synonymous for most Chinese adults in the U.S. in 1880. In later censuses, it is possible that children born in the U.S. to a parent who is Chinese and a parent who is another race choose to report her race as the other race. We will address this by examining the dynamic effects and showing a sharp change in the outcomes immediately after the Act, when this is less likely to be an issue. Moreover, inter-marriage between Chinese and other races was very low during this period.[11] Finally, such classification problem does not affect the interpretation of aggregate (or native whites') outcomes.

Our sample is restricted to working age men (ages 15 to 64). It includes the states where the Chinese population is above 1% of the total population in 1880: Arizona, California, Idaho, Montana, Nevada, Oregon, Washington, and Wyoming.[12]

We define $HighChineseShare$ to be a dummy equal to 1 if the 1880 share of Chinese individuals in county i is above the sample median (i.e., 4%). Since the reduction of

[11] Over the time period 1870–1940, only 1.7% of married Chinese had a non-Chinese spouse.
[12] Our results are unchanged if we use the entire U.S. These are available upon request.

Chinese workers was meant to benefit both white native born and immigrant workers, we will similarly group all those with white race in one group. Similarly, we group all other races together.[13]

Figure 1 shows the population of Chinese immigrants and non-Chinese immigrants in the United States by year. Prior to the Chinese Exclusion Act, both populations grew in a roughly linear fashion. After the Act, the non-Chinese population continued to grow in a roughly linear fashion, while the Chinese population reversed trend.

Figure 2 maps the spatial distribution of Chinese in 1880 across the counties in our sample, with darker colors corresponding to a higher Chinese share. The map shows that there was significant variation across counties within states.

Table 1 presents the descriptive statistics for the main outcome variables for all counties, and also for the subsample of counties with low and high 1880 Chinese population share. Panel A shows that on average, only 2% of the total population of our sample is Chinese. But there is much variation across counties. The maximum Chinese population share is 63% and the minimum is 0%. A comparison of the means in Panels B and C shows that there is little difference in baseline characteristics between counties with low and high 1880 Chinese population share. Below, we show that results are robust to controlling for these pre-Act differences.

5 Results

5.1 Labor Supply

Table 2 presents the result for the Chinese population. Columns (1) and (2) of Panel A show that the Exclusion Act was effective in reducing the size of the Chinese population

[13] Our results do not change if we separate native born and immigrants. They are available upon request.

and labor force. The coefficients, which are statistically significant at the 1% level, are -1.59 and -1.52, respectively. This implies that, after the Act, a county with 1880 Chinese population share above the median had a Chinese population and labor force almost 80% lower than a county with 1880 Chinese share below the median.[14] In columns (3)–(6), we examine the effects of the Act on the size of the Chinese labor force in each of the major sectors – manufacturing, mining, railroads and agriculture. In all cases, coefficients are negative. They are statistically significant at the 10% or higher level for manufacturing, mining, and railroads.

In Panel B, we turn to the number of Chinese workers by skill level. The Act had no impact on average literacy (column 2), while it reduced the number of both skilled and unskilled Chinese workers (columns 3 and 4), as well as that of Chinese managers and proprietors (column 5).[15] Column (6) shows that the Act also reduced occupational income scores of Chinese workers.[16] Taken together, these results indicate that the Act not only reduced the number of Chinese workers, but also pushed the Chinese who remained in the U.S. in lower paid occupations.

Table 3 presents the analogous estimates for white workers. Results are similar to those for Chinese. All coefficients are negative, and most of them are precisely estimated. They show that the Act reduced the size of the white working population across sectors and skills, lowered the number of white managers and proprietors, and led to a decline in whites' occupational income scores.

For completeness, Table 4 presents the estimates for all workers: Chinese, white,

[14] Given that the dependent variable is in log, the magnitude of the coefficient can be calculated as follows: $\%\Delta y = 100 \cdot (e^{\beta} - 1)$.

[15] Skill groups are defined based on individuals' reported occupation following Katz and Margo (2014). In particular, high and middle skilled workers include: professionals, managers, craftsmen, clerical and sales occupations. Unskilled occupations include: operatives, laborers, and service workers (both private household and non-household).

[16] As noted above, the U.S. Census did not collect wages prior to 1940. We thus use occupational income scores, which assign to an individual the median income of his job category in 1950 and are often interpreted as a proxy for life-time income.

and others.[17] Unsurprisingly, results look similar to those of Tables 2 and 3.

Figures 3 to 6 examine the dynamic effects. We estimate an equation similar to the baseline except that we interact 1880 Chinese share with year fixed effects instead of the post dummy variable. The omitted category is 1870. The figures report the coefficient on the interaction, with corresponding 95% confidence intervals (see Table A.2 for formal estimates). Figures 3 and 4 report results for Chinese population and occupational income scores, respectively. Reassuringly, we find no evidence of pre-trends. Turning to the post-1880 period, we observe an immediate decline in the first year after the Act. This supports the parallel trends assumption and reduces concerns of spurious correlations. Interestingly, the effect appears to be permanent and persistent over time.

Figures 5 and 6 present the analogous estimates for white population and for white workers' occupational income scores. The negative effect on white occupational income score is more gradual than for previous outcomes. Yet, both figures are similar to those for the Chinese: there is no evidence of a pre-trend, while the effects of the Act remain highly persistent. The temporal patterns for other variables and other workers are similar, and are not reported for brevity.

Results in this section show that the Chinese Exclusion Act significantly reduced the number of workers from all races, all sectors and all skill levels. Moreover, the reduction in occupational income score implies that, on average, all workers were worse off. The reduction in the number of managers is consistent with a overall reduction of production (e.g., shutting down factories or factory lines) or a reorganization of production (e.g., reducing the number of managers per worker). We investigate this more in the next section.

The fact that labor force for all races declined in manufacturing, mining and railroads

[17] Table A.1 presents the estimates for workers who are neither Chinese nor white.

is consistent with Chinese workers being complements to natives and workers of other races in production. In this sense, it is interesting to note that the Act had little effect on Chinese workers in agriculture, but nonetheless reduced the number of total (and white) workers in the sector. There are two possible explanations for this. The first one is that the decline in total population reduced demand for food production from nearby areas. The second one is that the Chinese were critical in land improvement projects such as draining swamps, such that the Act reduced the amount of arable land. Data limitations prevent us from examining this directly. In the next section, we will examine farm land value as a related outcome.

5.2 Productivity and Other Outcomes

We begin by examining the manufacturing sector.[18] Table 5, column (1), examines (the log of) average wages, which is reported at the county level and cannot be disaggregated by worker's nativity (or race) status. The negative coefficient indicates that the Act reduced average manufacturing wages, even though the estimate is noisy. Column (2) shows that, consistent with the decline in the number of workers we found earlier, (the log of) total manufacturing output declined as well. The estimate is statistically significant at the 5% level.

Column (3) turns to the number of establishments. This specification is estimated using a Poisson regression, since the number of establishments is a count variable. Our estimates, which are statistically significant at the 10% level, indicate that, after the Act, counties with 1880 Chinese share above median had roughly half the number of establishments of counties with 1880 Chinese share below median.[19] Since the 1880 average number of establishments per county was 87, this implies that, after the Act,

[18] The number of observations differs from that in the main sample above because data from the Census of Manufacturing are not available for all counties and years.

[19] $E(Y) = e^{\alpha}e^{\beta x}$; hence, $e^{-0.66} \approx 0.52$.

counties with 1880 Chinese population share above the median had approximately 43 fewer establishments than counties with 1880 Chinese population share below the median. Column (4) shows that there is no effect on establishment size (defined as the number of workers per establishment).

These results, together with our earlier findings on the reduction in workers of all skill levels (in all sectors) as well as in manufacturing, suggest that the Act and the subsequent exodus of Chinese workers led to the closure of factories. Interestingly, the reduction in total output is large, when compared to the modest reduction in the number of establishments. The coefficient indicates that counties with 1880 Chinese share above the median had approximately 68% lower manufacturing output than those with a share below the median. One possible explanation, consistent with the historical narrative, is that Chinese workers and factories were more productive.

We do not have detailed data on mining or agricultural output. Column (5) examines an admittedly crude proxy for whether there is any mine in a county during each decade. This is a dummy variable that equals one if county i in year t has a share of labor force in mining above the sample median. Results suggest that the Act had a negative and statistically significant effect on the presence of mine. Again, this resonates with historical accounts of mine owners who voiced concern that the loss of Chinese labor would cause them to shutter their mines.

Figures 7 and 8 plot the dynamic estimates for total manufacturing output and the mine proxy. The temporal patterns are similar to our earlier estimates, with the exception that there is a rebound in mining in 1940.

Finally, we consider the effects of the Act on the agricultural sector. Table 6, column (1), documents that the Act had a negative and statistically significant effect on (the log of) farm value. Yet, as shown in column (2), the Act had no impact on farm size. Column (3) to (6) show that the Act reduced the number of horses (the main source of

horsepower for plowing and other heavy farm work at the time), the value of livestock, the value of farm machinery, and average expenditures on fertilizer. The estimates are statistically significant at the 1% level, except for fertilizer. These results are consistent with a reduction in the demand for farm products, and a corresponding reduction in the value of farm inputs. They are also consistent with a reduction in the quality of farm land (e.g., from the loss of Chinese workers doing major land improvement) since other inputs are likely to complement land.[20]

5.3 Robustness

The dynamic estimates support the parallel trends assumption and go against concerns that our results are driven by spurious correlations. Nevertheless, one may still be concerned that the location of Chinese workers in 1880 is endogenous to economic factors that will reduce the economic development of the county. To examine this further, we examine correlates of Chinese population share in 1880 and all of the outcomes we examine, measured in 1880. We control for state fixed effects to isolate the within-state variation that our regressions exploit. Tables A.3 and A.4 show that Chinese population share is statistically significantly correlated with these variables. To address this, we re-estimate the baseline equations and control for the outcome variable measured in 1880 interacted with year fixed effects. This means that our result will not be driven by the differential evolution of counties with different base year measures of the dependent variable. Table A.5 presents the estimates. They are very robust. Only the estimate for the mine proxy becomes statistically insignificant. But the coefficient is similar to the baseline in magnitude and sign. We do not examine agricultural variables because of the small sample size.

[20] Data limitations prevent us from estimating dynamic effects, as we instead did for previous outcomes.

Another important caveat to the interpretation of our estimates is the possibility of relocation. For example, if the Act caused workers and economic activity to move from counties with high Chinese share in 1880 to counties with low Chinese share, then our results will reflect the relocation effect rather than a aggregate decline. We address this by controlling for the Chinese share in other counties in the same state. The logic is the following. Since relocation costs increase with distance on average, people and firms are more likely to move within states than across states. Thus, if our main results capture relocation to other counties in the same state that have low Chinese share, then controlling for Chinese share should attenuate our negative findings. Tables A.6 to A.7 show that the main interaction estimates are unchanged when we control for Chinese share in other counties of the same state interacted with the post dummy variables. Our main estimates are unlikely to be driven by relocation.

In Tables A.8, and A.9 we also present alternative estimates where we control for the average Chinese share in adjacent counties interacted with the post-1882 dummy. This addresses the fact that for counties near state borders, the county that is the closest (i.e., the adjacent county) will be in a different state. The estimates are similar.

We also examine the robustness of our estimates to outlier values in the dependent variables. We winsorize the top and bottom 1% of each dependent variable. Table A.10 shows that the results are very robust.

Finally, we re-estimate our baseline equation with population weights. Our main estimates are not weighted so each county and year receives the same weight. Population weighting produces estimates that are numerically similar to if we used an individual-level sample. Tables A.11 show that the results are similar.

6 Conclusion

The Chinese Exclusion Act of 1882 was introduced both to respond to xenophobic sentiments of the time and to protect the economic livelihoods of white and native workers from Chinese immigrants, who were thought to exert negative pressure on the wages of low skilled workers. However, our analysis shows that the Act failed to achieve its economic goals. Chinese workers were employed in occupations of all skill levels at the time of the Act. Their *en-mass* departure led to an across-the-board economic decline. Manufacturing establishments and mines closed, agricultural land and inputs declined in values, wages declined, and the population and labor supply of all groups diminished.

Our findings support the notion, discussed by a recent literature, that the Exclusion Act was responsible for the retardation of economic growth in the U.S. West. They are also consistent with the growing body of empirical studies showing the value of immigrants to early 20th century economic growth in the United States (Sequeira et al. 2020; Ager and Hansen, 2017; Tabellini, 2020) and documenting that immigration restrictions often failed to increase employment and wages among native workers (Abramitzky et al., 2022; Clemens et al., 2018).

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Tables

Table 1: Summary Statistics

	N	Mean	Std. Dev.	Min	Max
			A. All Counties		
Chinese Population Share	1,532	0.02	0.05	0	0.63
Total Labor Force	1,532	7,991	33,268	1	835,303
Avg. Income Score	1,532	20.37	2.81	11	27.84
Share of Literate	1,301	0.94	0.07	0.03	1
Mfg. Share of Labor Force	1,532	0.09	0.09	0	0.64
Mining Share of Labor Force	1,532	0.09	0.14	0	0.81
Mfg. Total Output	1,174	178,422	1,055,000	0	22,530,000
Value of Farm Land	924	188,862	373,325	0	5,009,000
Connected to Railroad	1,501	0.69	0.46	0	1
			B. Counties with 1880 Chinese Share Above Median		
Chinese Population Share	775	0.04	0.07	0	0.63
Total Labor Force	775	7,745	20,372	67.31	227,776
Avg. Income Score	775	21	2.75	13.92	27.84
Share of Literate	660	0.94	0.06	0.03	1
Mfg. Share of Labor Force	775	0.09	0.09	0	0.64
Mining Share of Labor Force	775	0.12	0.16	0	0.81
Mfg. Total Output	597	180,242	712,850	0	7,494,000
Value of Farm Land	460	187,102	321,413	163.20	3,365,000
Connected to Railroad	768	0.72	0.45	0	1
			C. Counties with 1880 Chinese Share Below Median		
Chinese Population Share	757	0.01	0.01	0	0.20
Total Labor Force	757	8,243	42,618	1	835,303
Avg. Income Score	757	19.72	2.72	11	27.65
Share of Literate	641	0.94	0.08	0.26	1
Mfg. Share of Labor Force	757	0.08	0.09	0	0.53
Mining Share of Labor Force	757	0.05	0.10	0	0.64
Mfg. Total Output	577	176,539	1,319,000	0	22,530,000
Value of Farm Land	464	190,607	418,831	0	5,009,000
Connected to Railroad	733	0.67	0.47	0	1

Notes: Panel A presents statistics for all counties; Panel B for those with 1880 Chinese share above the sample median; Panel C for those below the median. The data are from full count U.S. Censuses between 1870 and 1940.

Table 2: Effect on Chinese Workers

	Dependent Variable					
	(1)	(2)	(3)	(4)	(5)	(6)
	A. Population and Labor Force Participation					
	Pop	**Total**	**Mfg.**	**Mining**	**Railroad**	**Agric.**
Dependent Variable Mean	*3.383*	*3.023*	*0.643*	*0.589*	*0.322*	*1.228*
-- in 1880	*5.301*	*5.202*	*1.899*	*2.247*	*1.009*	*2.500*
Post x High Chinese Share	-1.59***	-1.52***	-0.42**	-1.87***	-0.20*	-0.15
	(0.30)	(0.28)	(0.18)	(0.31)	(0.11)	(0.21)
Observations	1,096	1,096	1,096	1,096	1,096	1,096
	B. Worker Skill Level and Income					
		Literate	**Skilled**	**Unskilled**	**Managers**	**Income Score**
Dependent Variable Mean		*0.791*	*1.519*	*2.618*	*1.285*	*3.006*
-- in 1880		*0.716*	*2.373*	*5.072*	*1.926*	*2.940*
Post x High Chinese Share		0.03	-1.10***	-1.50***	-0.85***	-0.17***
		(0.04)	(0.25)	(0.27)	(0.23)	(0.04)
Observations		728	1,096	1,096	1,096	879

Notes: Observations are at the county and decade level. The dependent variables in Panel A are the log of total population (col. 1), the log of the total labor force (col. 2), or the log of the labor force in the sector stated in the column headings (col. 3 - col. 6). The dependent variables in Panel B are the share of literate (col. 2), the log of total number of workers in the skill category stated in the column headings (col. 3 - col. 5), or the log of the occupational income score (col. 6). All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data are from full count U.S. Censuses between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 3: Effect on White Workers

	Dependent Variable					
	(1)	(2)	(3)	(4)	(5)	(6)
	A. Population and Labor Force Participation					
	Pop	**Total**	**Mfg.**	**Mining**	**Railroad**	**Agric.**
Dependent Variable Mean	*9.127*	*8.077*	*5.325*	*4.114*	*4.197*	*6.788*
-- in 1880	*8.390*	*7.478*	*4.871*	*4.047*	*2.644*	*6.225*
Post x High Chinese Share	-0.48***	-0.58***	-0.59**	-0.97***	-0.74***	-0.41**
	(0.18)	(0.18)	(0.26)	(0.29)	(0.25)	(0.17)
Observations	1,096	1,096	1,096	1,096	1,096	1,096
	B. Worker Skill Level and Income					
		Literate	**Skilled**	**Unskilled**	**Managers**	**Income Score**
Dependent Variable Mean		*0.960*	*6.620*	*6.783*	*5.229*	*3.079*
-- in 1880		*0.936*	*5.925*	*6.435*	*4.559*	*3.059*
Post x High Chinese Share		-0.01	-0.65***	-0.81***	-0.69***	-0.06***
		(0.01)	(0.20)	(0.21)	(0.20)	(0.02)
Observations		858	1,096	1,096	1,096	1,096

Notes: Observations are at the county and decade level. The dependent variables in Panel A are the log of total population (col. 1), the log of the total labor force (col. 2), or the log of the labor force in the sector stated in the column headings (col. 3 - col. 6). The dependent variables in Panel B are the share of literate (col. 2), the log of total number of workers in the skill category stated in the column headings (col. 3 - col. 5), or the log of the occupational income score (col. 6). All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data are from full count U.S. Censuses between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 4: Effect on All Workers

	Dependent Variable					
	(1)	(2)	(3)	(4)	(5)	(6)
	A. Population and Labor Force Participation					
	Pop	**Total**	**Mfg.**	**Mining**	**Railroad**	**Agric.**
Dependent Variable Mean	*9.198*	*8.154*	*5.367*	*4.182*	*4.259*	*6.867*
-- in 1880	*8.511*	*7.668*	*4.962*	*4.347*	*2.752*	*6.281*
Post x High Chinese Share	-0.61***	-0.74***	-0.62**	-1.24***	-0.76***	-0.45***
	(0.17)	(0.18)	(0.25)	(0.30)	(0.25)	(0.17)
Observations	1,096	1,096	1,096	1,096	1,096	1,096
	B. Worker Skill Level and Income					
		Literate	**Skilled**	**Unskilled**	**Managers**	**Income Score**
Dependent Variable Mean		*0.942*	*6.641*	*6.900*	*5.265*	*3.067*
-- in 1880		*0.905*	*5.980*	*6.791*	*4.643*	*3.050*
Post x High Chinese Share		0.02	-0.69***	-1.04***	-0.75***	-0.06***
		(0.01)	(0.20)	(0.20)	(0.20)	(0.02)
Observations		858	1,096	1,096	1,096	1,096

Notes: Observations are at the county and decade level. The dependent variables in Panel A are the log of total population (col. 1), the log of the total labor force (col. 2), or the log of the labor force in the sector stated in the column headings (col. 3 - col. 6). The dependent variables in Panel B are the share of literate (col. 2), the log of total number of workers in the skill category stated in the column headings (col. 3 - col. 5), or the log of the occupational income score (col. 6). All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data are from full count U.S. Censuses between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 5: Effect on Manufacturing Productivity

	Dependent Variable				
	(1)	(2)	(3)	(4)	(5)
	Avg. Wage	**Total Output**	**Workers Per Establishment**	**Nr. of Establishments**	**Proxy for Mine**
Dependent Variable Mean	*2.821*	*9.846*	*2.330*	*96.27*	*0.476*
-- in 1880	*2.414*	*8.105*	*1.486*	*87.41*	*0.475*
Post x High Chinese Share	-0.12	-1.15**	-0.08	-0.66*	-0.12**
	(0.08)	(0.47)	(0.14)	(0.40)	(0.06)
Observations	804	820	842	886	1,096

Notes: Observations are at the county and decade level. The dependent variables are the log of average manufacturing wage (col. 1), the log of the total manufacturing output (col. 2), the log of the number of workers per manufacturing establishment (col. 3), the number of manufacturing establishments (col. 4), or a dummy variable equal to 1 if the share of labor force in mining is above median (col. 5). All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. Col. 4 reports the results of a Poisson regression. The data for the dependent variables in columns (1)–(4) are from the *Historical, Demographic, Economic, and Social Data* (ICPSR 2896), for the decades 1870–1940; the data for the dependent variable in column (5) and for the independent variables are from full count U.S. Censuses between 1870 and 1940. Monetary amounts are expressed in thousands of 2020 U.S. dollars (deflated using the Minneapolis Fed 1800–2020 CPI). Standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

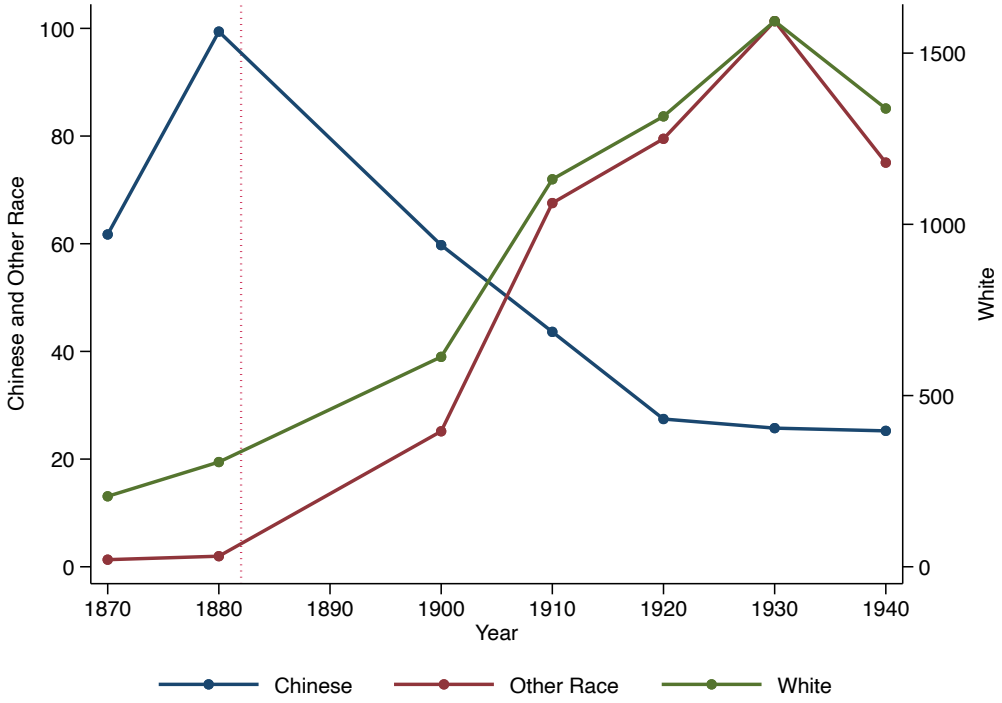
Table 6: Effect on Agricultural Productivity

	Dependent Variable					
	(1)	(2)	(3)	(4)	(5)	(6)
	Value Farm Land	**Avg. Farm Size**	**Nr. Horses**	**Value Livestock**	**Value Machinery**	**Avg. Exp. Fertilizer**
Dependent Variable Mean	*11.47*	*694.2*	*7.942*	*9.795*	*8.571*	*584.2*
-- in 1880	*9.805*	*280.3*	*7.384*	*8.750*	*6.936*	*16.41*
Post x High Chinese Share	-0.45**	69.94	-0.51***	-0.50***	-0.57***	-155.04
	(0.20)	(193.05)	(0.19)	(0.19)	(0.20)	(129.84)
Observations	442	618	750	1,095	1,095	695

Notes: Observations are at the county and decade level. The dependent variables are the log of the value of farm land (col. 1), the average farm size (col. 2), the log of the number of horses used in farming (col. 3), the log of the value of livestock (col. 4), the log of the value of farming machinery and equipment (col. 5), or the average expenditure for fertilizers (col. 6). All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data for the dependent variables in columns (1)–(4) are from the *United States Agriculture Data* (ICPSR 35206), for the decades 1870–1940; the data for the independent variables are from full count U.S. Censuses between 1870 and 1940. Monetary amounts are expressed in thousands of 2020 U.S. dollars (deflated using the Minneapolis Fed 1800–2020 CPI). Standard errors, clustered by county, are shown in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

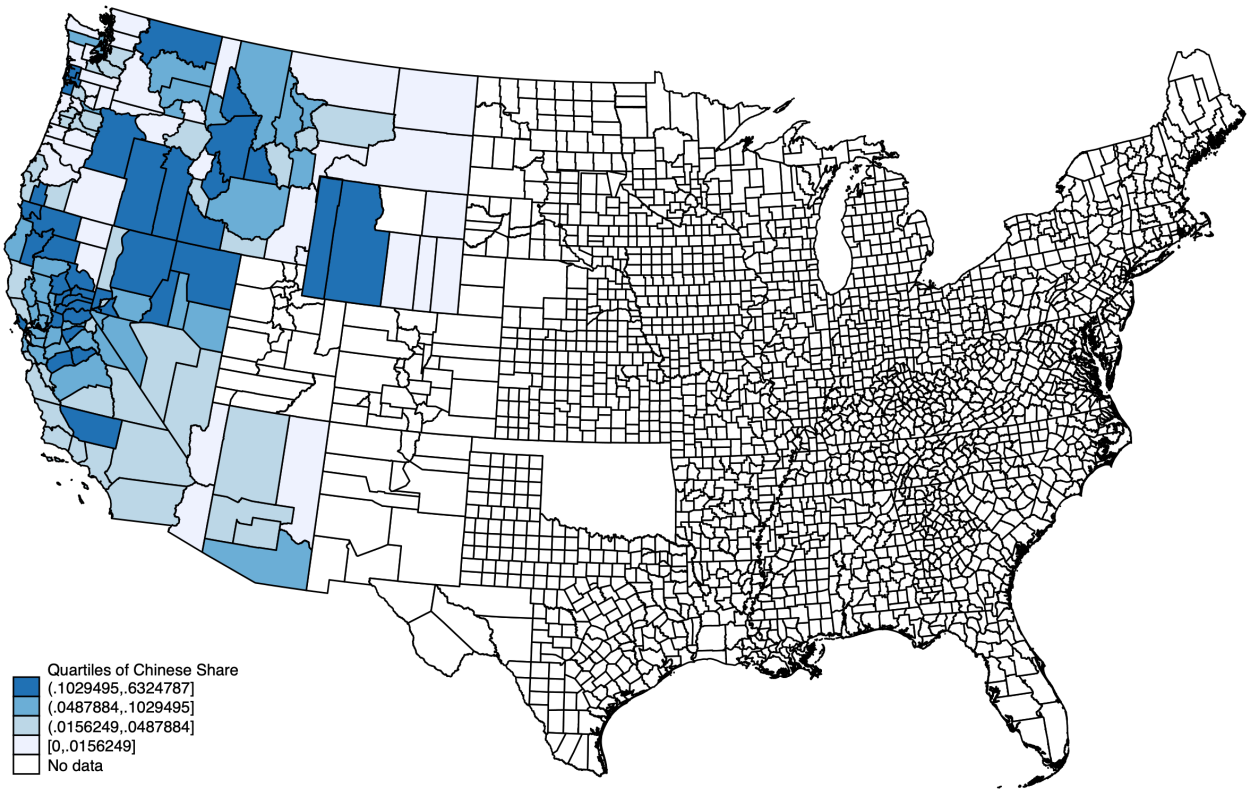
Figures

Figure 1: Evolution of Immigrant Population



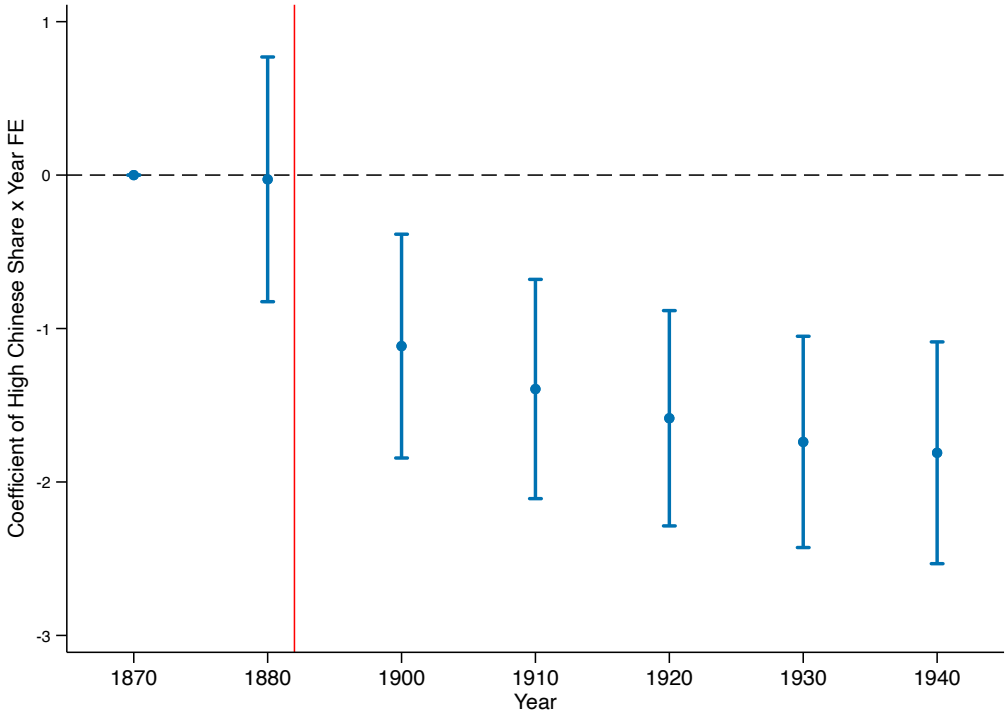
Notes: The figure represents the stock of foreign-born individuals in each census year, by race, for the U.S. counties part of our sample (as described in Section 4). The data are from full count U.S. Censuses between 1870 and 1940.

Figure 2: Spatial Distribution of Chinese in 1880



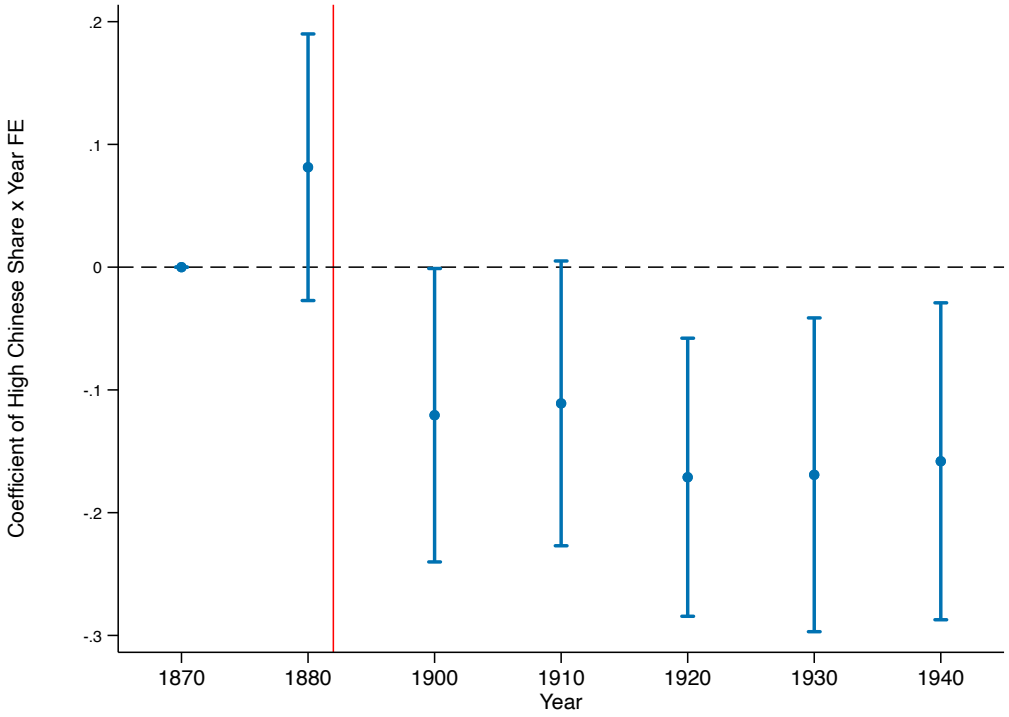
Notes: The map represents the 1880 share of Chinese population across the U.S. counties part of the sample used in the analysis (as described in Section 4). The different colors represent the quartiles of the distribution of Chinese share. Lighter colors indicate lower shares, darker colors indicate higher shares. Counties not part of the sample are in white.

Figure 3: Dynamic Effect on Chinese Population



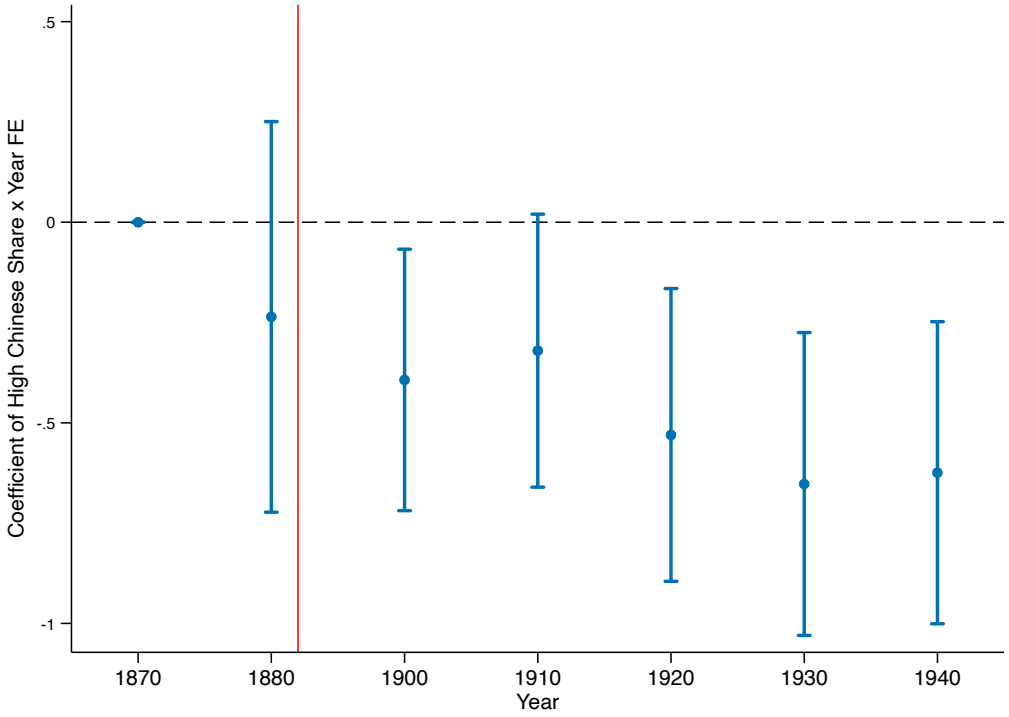
Notes: Observations are at the county and decade level. The dependent variable is the log of total Chinese population. The independent variables are the 1880 Chinese share interacted with a vector of time dummy variables. Vertical lines are 95% confidence intervals based on standard errors clustered at the county level. The regression controls for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data are from full count U.S. Censuses between 1870 and 1940.

Figure 4: Dynamic Effect on Chinese Occupational Income Score



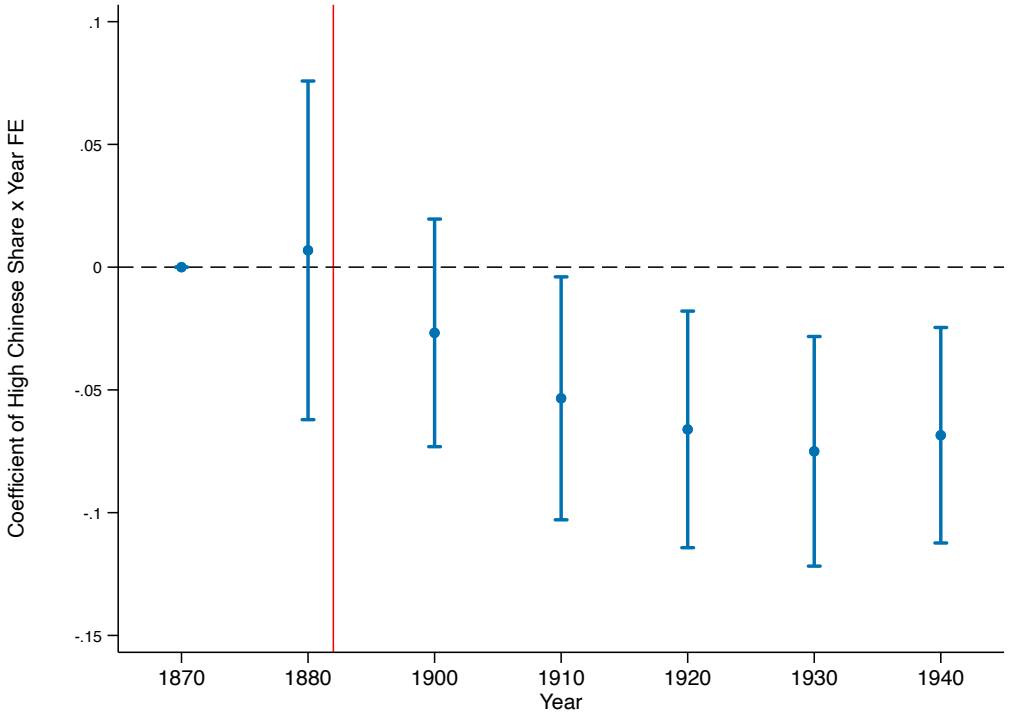
Notes: Observations are at the county and decade level. The dependent variable is the log of occupational income score of Chinese workers. The independent variables are the 1880 Chinese share interacted with a vector of time dummy variables. Vertical lines are 95% confidence intervals based on standard errors clustered at the county level. The regression controls for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data are from full count U.S. Censuses between 1870 and 1940.

Figure 5: Dynamic Effect on White Population



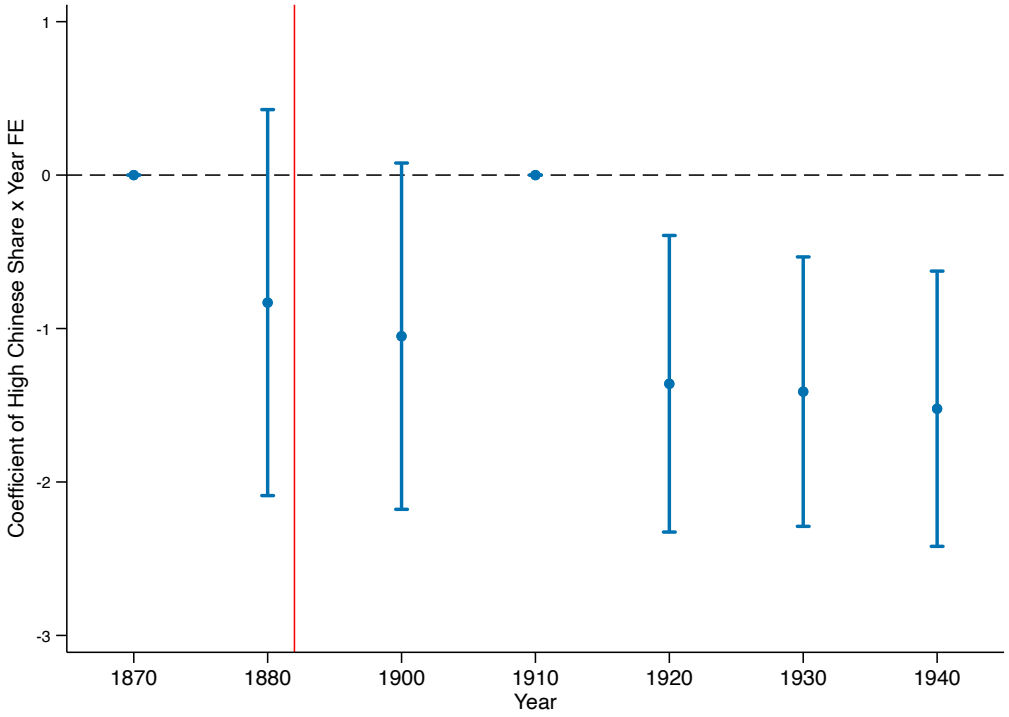
Notes: Observations are at the county and decade level. The dependent variable is the log of total white population. The independent variables are the 1880 Chinese share interacted with a vector of time dummy variables. Vertical lines are 95% confidence intervals based on standard errors clustered at the county level. The regression controls for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data are from full count U.S. Censuses between 1870 and 1940.

Figure 6: Dynamic Effect on White Occupational Income Score



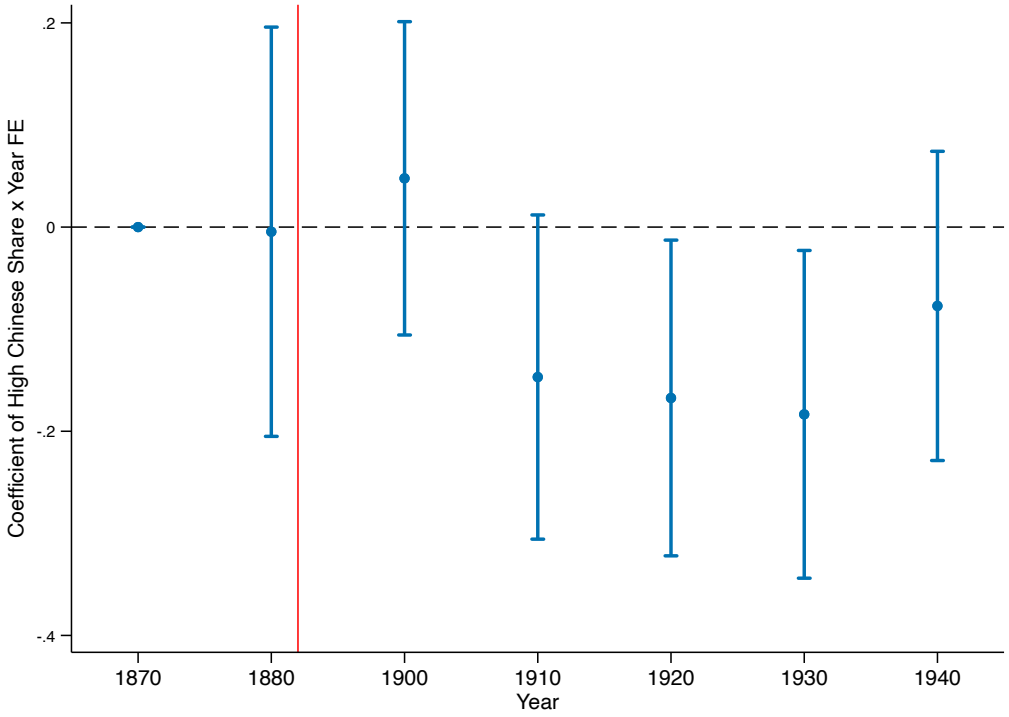
Notes: Observations are at the county and decade level. The dependent variable is the log of occupational income score of white workers. The independent variables are the 1880 Chinese share interacted with a vector of time dummy variables. Vertical lines are 95% confidence intervals based on standard errors clustered at the county level. The regression controls for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data are from full count U.S. Censuses between 1870 and 1940.

Figure 7: Dynamic Effect on Manufacturing Output



Notes: Observations are at the county and decade level. The dependent variable is the log of total manufacturing output (expressed in thousands of 2020 U.S. dollars, and deflated using the Minneapolis Fed 1800–2020 CPI). The independent variables are the 1880 Chinese share interacted with a vector of time dummy variables. Vertical lines are 95% confidence intervals based on standard errors clustered at the county level. The regression controls for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data for the dependent variable are from the *Historical, Demographic, Economic, and Social Data* (ICPSR 2896), for the decades 1870–1940; the data for the independent variables are from full count U.S. Censuses between 1870 and 1940.

Figure 8: Dynamic Effect on Proxy for Presence of Mine



Notes: Observations are at the county and decade level. The dependent variable is a dummy variable equal to 1 if the share of labor force in mining is above median. The independent variables are the 1880 Chinese share interacted with a vector of time dummy variables. Vertical lines are 95% confidence intervals based on standard errors clustered at the county level. The regression controls for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data are from full count U.S. Censuses between 1870 and 1940.

Appendix

Table A.1: Effect on Other (non-Chinese and non-White) Workers

	Dependent Variable					
	(1)	(2)	(3)	(4)	(5)	(6)
	A. Population and Labor Force Participation					
	Pop	**Total**	**Mfg.**	**Mining**	**Railroad**	**Agric.**
Dependent Variable Mean	*4.961*	*3.957*	*1.383*	*0.564*	*1.244*	*2.671*
-- in 1880	*3.548*	*2.523*	*0.463*	*0.306*	*0.168*	*1.203*
Post x High Chinese Share	-1.00***	-1.06***	-0.43**	-0.18	-0.10	-0.57**
	(0.24)	(0.24)	(0.21)	(0.17)	(0.21)	(0.28)
Observations	1,096	1,096	1,096	1,096	1,096	1,096
	B. Worker Skill Level and Income					
		Literate	**Skilled**	**Unskilled**	**Managers**	**Income Score**
Dependent Variable Mean		*0.769*	*1.677*	*3.186*	*0.935*	*2.875*
-- in 1880		*0.747*	*0.757*	*2.222*	*0.169*	*2.903*
Post x High Chinese Share		0.02	-0.69***	-1.04***	-0.51**	-0.13***
		(0.06)	(0.23)	(0.24)	(0.22)	(0.05)
Observations		814	1,096	1,096	1,096	1,025

Notes: Observations are at the county and decade level. The dependent variables in Panel A are the log of total population (col. 1), the log of the total labor force (col. 2), or the log of the labor force in the sector stated in the column headings (col. 3 - col. 6). The dependent variables in Panel B are the share of literate (col. 2), the log of total number of workers in the skill category stated in the column headings (col. 3 - col. 5), or the log of the occupational income score (col. 6). All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data are from full count U.S. Censuses between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.2: Coefficients of the Dynamic Effects

	Dependent Variable							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Chinese Population	**Chinese LF**	**Chinese Income Score**	**White Population**	**White LF**	**White Income Score**	**Total Mfg. Output**	**Proxy for Mine**
High Chinese Share x 1880	-0.03	0.20	0.08	-0.24	-0.29	0.01	-0.83	-0.00
	(0.40)	(0.41)	(0.06)	(0.25)	(0.24)	(0.03)	(0.64)	(0.10)
High Chinese Share x 1900	-1.11***	-0.96***	-0.12**	-0.39**	-0.46***	-0.03	-1.05*	0.05
	(0.37)	(0.35)	(0.06)	(0.17)	(0.18)	(0.02)	(0.57)	(0.08)
High Chinese Share x 1910	-1.39***	-1.29***	-0.11*	-0.32*	-0.43**	-0.05**		-0.15*
	(0.36)	(0.35)	(0.06)	(0.17)	(0.18)	(0.03)		(0.08)
High Chinese Share x 1920	-1.58***	-1.46***	-0.17***	-0.53***	-0.65***	-0.07***	-1.36***	-0.17**
	(0.36)	(0.34)	(0.06)	(0.19)	(0.19)	(0.02)	(0.49)	(0.08)
High Chinese Share x 1930	-1.74***	-1.66***	-0.17***	-0.65***	-0.79***	-0.08***	-1.41***	-0.18**
	(0.35)	(0.32)	(0.06)	(0.19)	(0.19)	(0.02)	(0.45)	(0.08)
High Chinese Share x 1940	-1.81***	-1.60***	-0.16**	-0.62***	-0.75***	-0.07***	-1.52***	-0.08
	(0.37)	(0.34)	(0.07)	(0.19)	(0.19)	(0.02)	(0.45)	(0.08)
Observations	1,096	1,096	879	1,096	1,096	1,096	820	1,096

Notes: Observations are at the county and decade level. The dependent variables are the log of Chinese population (col. 1), the log of the Chinese labor force (col. 2), the log of the Chinese occupational income score (col. 3), the log of white population (col. 4), the log of the white labor force (col. 5), the log of the white occupational income score (col. 6), the log of total manufacturing output (col. 7), or a dummy variable equal to 1 if the share of labor force in mining is above median (col. 8). All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data are from full count U.S. Censuses, and the *Historical, Demographic, Economic, and Social Data* (ICPSR 2896) between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.3: Correlates of Chinese Share with Chinese and White Characteristics

	Dependent Variable: Chinese Share in 1880				
	(1) **Coef**	(2) **Obs**		(3) **Coef**	(4) **Obs**
Chinese Log Population	0.22***	232	White Log Population	0.05*	232
	(0.01)			(0.03)	
Chinese Log LF	0.22***	232	White Log LF	0.08***	232
	(0.01)			(0.03)	
Chinese Log LF Mfg.	0.09***	232	White Log LF Mfg.	0.07***	232
	(0.02)			(0.02)	
Chinese Log LF Mining	0.12***	232	White Log LF Mining	0.09***	232
	(0.01)			(0.02)	
Chinese Log LF Railroad	0.08***	232	White Log LF Railroad	0.07***	232
	(0.02)			(0.02)	
Chinese Log LF Agriculture	0.10***	232	White Log LF Agriculture	0.00	232
	(0.03)			(0.03)	
Chinese Log Total High & Middle Skill	0.20***	232	White Log Total High & Middle Skill	0.10***	232
	(0.02)			(0.03)	
Chinese Log Total Unskilled	0.22***	232	White Log Total Unskilled	0.11***	232
	(0.01)			(0.02)	
Chinese Log Total Managers	0.21***	232	White Log Total Managers	0.10***	232
	(0.03)			(0.03)	
Chinese Share Literate	0.29***	222	White Share Literate	2.26***	232
	(0.11)			(0.58)	
Chinese Log Occupational Income Score	1.40***	222	White Log Occupational Income Score	1.09***	232
	(0.15)			(0.25)	

Notes: The sample is a cross-section of counties in 1880. Each row in columns (1) and (2) is one regression. Each row in columns (3) and (4) is one regression. Each regression controls for state fixed effects. The data are from full count U.S. Censuses between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.4: Correlates of Chinese Share with Manufacturing and Agriculture

Dependent Variable: Chinese Share in 1880		
	(1)	(2)
	Coef	**Obs**
Log Average Mfg. Wage	0.28***	219
	(0.10)	
Log Total Mfg. Output	0.05***	232
	(0.01)	
Log Nr. Mfg. Workers Per Establishment	0.07	220
	(0.07)	
Nr. Mfg. Establishments	0.00***	232
	(0.00)	
Proxy for Mine	0.32***	232
	(0.07)	
Connected to Railroad	0.04	232
	(0.08)	
Log. Value of Farm Land	0.02	232
	(0.02)	
Avg. Farm Size	0.00	232
	(0.00)	
Log Nr. Horses	0.06**	232
	(0.02)	
Log Value of Livestock	0.04*	232
	(0.02)	
Log Value of Machinery	0.03	232
	(0.02)	
Avg. Expenditure for Fertilizers	0.00	232
	(0.00)	

Notes: The sample is a cross-section of counties in 1880. Each row in columns (1) and (2) is one regression. Each regression controls for state fixed effects. The data are from full count U.S. Censuses, the *Historical, Demographic, Economic, and Social Data* (ICPSR 2896), and the *United States Agriculture Data* (ICPSR 35206) between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A.5: Robustness Check – Control for Outcome at Baseline x Decade FE

	Dependent Variable								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	A. Chinese Workers								
	Population	**LF Total**	**LF Mfg.**	**LF Mining**	**LF Railroad**	**Skilled**	**Unskilled**	**Managers**	**Score**
Dependent Variable Mean	*3.383*	*3.023*	*0.643*	*0.589*	*0.322*	*1.519*	*2.618*	*1.285*	*3.005*
– in 1880	*5.301*	*5.202*	*1.899*	*2.247*	*1.009*	*2.373*	*5.072*	*1.926*	*2.940*
Post x High Chinese Share	-2.05***	-1.79***	-0.24	-0.36	-0.02	-1.06***	-1.55***	-0.83***	-0.12***
	(0.34)	(0.32)	(0.18)	(0.24)	(0.10)	(0.27)	(0.32)	(0.24)	(0.04)
Observations	1,096	1,096	1,096	1,096	1,096	1,096	1,096	1,096	872
	B. White Workers								
	Population	**LF Total**	**LF Mfg.**	**LF Mining**	**LF Railroad**	**Skilled**	**Unskilled**	**Managers**	**Income Score**
Dependent Variable Mean	*9.127*	*8.077*	*5.325*	*4.114*	*4.197*	*6.620*	*6.783*	*5.229*	*3.079*
– in 1880	*8.390*	*7.478*	*4.871*	*4.047*	*2.644*	*5.925*	*6.435*	*4.559*	*3.059*
Post x High Chinese Share	-0.47***	-0.59***	-0.57**	-0.68**	-0.74***	-0.65***	-0.78***	-0.71***	-0.05**
	(0.17)	(0.17)	(0.25)	(0.29)	(0.25)	(0.20)	(0.21)	(0.20)	(0.02)
Observations	1,096	1,096	1,096	1,096	1,096	1,096	1,096	1,096	1,096
	C. Manufacturing and Agriculture								
	Mfg. Output	**Proxy for Mine**	**Value Farm Land**						
Dependent Variable Mean	*9.198*	*8.154*	*5.367*						
– in 1880	*8.511*	*7.668*	*4.962*						
Post x High Chinese Share	-0.61***	-0.74***	-0.62**						
	(0.17)	(0.18)	(0.25)						
Observations	1,096	1,096	1,096						

Notes: Observations are at the county and decade level. The dependent variables in Panel A and Panel B are the log of total population (col. 1), the log of the total labor force (col. 2), the log of the labor force in the sector stated in the column headings (col. 3 - col. 5), the log of total number of workers in the skill category stated in the column headings (col. 6 - col. 8), or the log of the occupational income score (col. 9). The dependent variables in Panel C are the log of the total manufacturing output (col. 1), a dummy variable equal to 1 if the share of labor force in mining is above median (col. 2), or the log of the value of farm land (col. 3). All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, county and state-by-decade fixed effects, and the dependent variable measured in 1880 interacted with decade fixed effects. The data are from full count U.S. Censuses, the *Historical, Demographic, Economic, and Social Data* (ICPSR 2896), and the *United States Agriculture Data* (ICPSR 35206) between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.6: Robustness Check – Spillovers to Other Counties in the State (Chinese and White Outcomes)

	Dependent Variable: Labor Force Size and Skill						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	A. Chinese Workers						
	Total	**Manufacturing**	**Mining**	**Railroad**	**Middle & High Skill**	**Unskilled**	**Managers**
Dependent Variable Mean	*3.023*	*0.643*	*0.589*	*0.322*	*1.519*	*2.618*	*1.285*
-- in 1880	*5.202*	*1.899*	*2.247*	*1.009*	*2.373*	*5.072*	*1.926*
Post x High Chinese Share	-1.51***	-0.43**	-1.88***	-0.21*	-1.13***	-1.49***	-0.90***
	(0.29)	(0.18)	(0.32)	(0.12)	(0.25)	(0.27)	(0.23)
Post x High Chinese Share in State	0.33	-0.44***	-0.50	-0.46	-1.25***	0.46	-2.02***
	(0.41)	(0.14)	(0.32)	(0.32)	(0.30)	(0.49)	(0.30)
Observations	1,096	1,096	1,096	1,096	1,096	1,096	1,096
	B. White Workers						
	Total	**Manufacturing**	**Mining**	**Railroad**	**Middle & High Skill**	**Unskilled**	**Managers**
Dependent Variable Mean	*8.077*	*5.325*	*4.114*	*4.197*	*6.620*	*6.783*	*5.229*
-- in 1880	*7.478*	*4.871*	*4.047*	*2.644*	*5.925*	*6.435*	*4.559*
Post x High Chinese Share	-0.60***	-0.59**	-1.04***	-0.77***	-0.66***	-0.85***	-0.69***
	(0.18)	(0.26)	(0.29)	(0.25)	(0.20)	(0.21)	(0.21)
Post x High Chinese Share in State	-0.78**	-0.11	-2.57***	-1.31***	-0.45	-1.66***	-0.35
	(0.33)	(0.45)	(0.29)	(0.35)	(0.30)	(0.25)	(0.24)
Observations	1,096	1,096	1,096	1,096	1,096	1,096	1,096

Notes: Observations are at the county and decade level. The dependent variables are the log of the total labor force (col. 1), the log of the labor force in the sector stated in the column headings (col. 2 - col. 4), or the log of total number of workers in the skill category stated in the column headings (col. 5 - col. 7). *High Chinese Share in State* is a dummy equal to 1 if the average 1880 Chinese share of the other counties in the state are above the median of the distribution of the 1880 Chinese share. All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data are from full count U.S. Censuses between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.7: Robustness Check – Spillovers to Other Counties in the State (Manufacturing and Agricultural Outcomes)

	Dependent Variable			
	(1) **Total Population (All Races)**	(2) **Proxy for Mine**	(3) **Total Mfg. Output**	(4) **Nr. Mfg. Establishments**
Dependent Variable Mean	*9.198*	*0.476*	*9.846*	*96.27*
-- in 1880	*8.511*	*0.475*	*8.105*	*87.41*
Post x High Chinese Share	-0.63***	-0.11*	-1.15**	-0.67*
	(0.17)	(0.06)	(0.48)	(0.40)
Post x High Chinese Share in State	-0.64*	0.20	0.16	-0.62
	(0.35)	(0.18)	(0.95)	(0.43)
Observations	1,096	1,096	820	886

Notes: Observations are at the county and decade level. The dependent variables are the log of the total population (col. 1), a dummy variable equal to 1 if the share of labor force in mining is above median (col. 2), the log of total manufacturing output (col. 3), or the number manufacturing establishments. *High Chinese Share in State* is a dummy equal to 1 if the average 1880 Chinese share of the other counties in the state are above the median of the distribution of the 1880 Chinese share. All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. Col. 4 reports the results of a Poisson regression. The data are from full count U.S. Censuses, the *Historical, Demographic, Economic, and Social Data* (ICPSR 2896), and the *United States Agriculture Data* (ICPSR 35206) between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.8: Robustness – Spillovers to Adjacent Counties (Chinese and White Outcomes)

	Dependent Variable: Labor Force Size and Skill						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	A. Chinese Workers						
	Total	**Manufacturing**	**Mining**	**Railroad**	**Middle & High Skill**	**Unskilled**	**Managers**
Dependent Variable Mean	*3.023*	*0.643*	*0.589*	*0.322*	*1.519*	*2.618*	*1.285*
-- in 1880	*5.202*	*1.899*	*2.247*	*1.009*	*2.373*	*5.072*	*1.926*
Post x High Chinese Share	-1.23***	-0.32	-1.65***	-0.20	-0.89***	-1.23***	-0.67***
	(0.28)	(0.19)	(0.31)	(0.13)	(0.25)	(0.27)	(0.23)
Post x High Chinese Share in Bordering Counties	-1.27***	-0.45**	-0.99***	0.00	-0.96***	-1.20***	-0.82***
	(0.28)	(0.21)	(0.30)	(0.13)	(0.24)	(0.28)	(0.22)
Observations	1,096	1,096	1,096	1,096	1,096	1,096	1,096
	B. White Workers						
	Total	**Manufacturing**	**Mining**	**Railroad**	**Middle & High Skill**	**Unskilled**	**Managers**
Dependent Variable Mean	*8.077*	*5.325*	*4.114*	*4.197*	*6.620*	*6.783*	*5.229*
-- in 1880	*7.478*	*4.871*	*4.047*	*2.644*	*5.925*	*6.435*	*4.559*
Post x High Chinese Share	-0.53***	-0.61**	-0.76**	-0.71***	-0.63***	-0.74***	-0.65***
	(0.20)	(0.28)	(0.29)	(0.25)	(0.22)	(0.23)	(0.22)
Post x High Chinese Share in Bordering Counties	-0.22	0.12	-0.96***	-0.12	-0.09	-0.29	-0.14
	(0.20)	(0.26)	(0.32)	(0.32)	(0.23)	(0.23)	(0.23)
Observations	1,096	1,096	1,096	1,096	1,096	1,096	1,096

Notes: Observations are at the county and decade level. The dependent variables are the log of the total labor force (col. 1), the log of the labor force in the sector stated in the column headings (col. 2 - col. 4), or the log of total number of workers in the skill category stated in the column headings (col. 5 - col. 7). *High Chinese Share in Bordering Counties* is a dummy equal to 1 if the average 1880 Chinese share of the bordering counties weighted by the length of the shared border is above the median of the distribution of the 1880 Chinese share. All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. The data are from full count U.S. Censuses between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.9: Robustness – Spillovers to Adjacent Counties (Manufacturing and Agricultural Outcomes)

	Dependent Variable			
	(1) **Total Population (All Races)**	(2) **Proxy for Mine**	(3) **Total Mfg. Output**	(4) **Nr. Mfg. Establishments**
Dependent Variable Mean	*9.198*	*0.476*	*9.846*	*96.27*
-- in 1880	*8.511*	*0.475*	*8.105*	*87.41*
Post x High Chinese Share	-0.55***	-0.08	-1.27**	-0.67
	(0.18)	(0.06)	(0.51)	(0.41)
Post x High Chinese Share in Bordering Counties	-0.28	-0.16**	0.55	0.20
	(0.20)	(0.07)	(0.47)	(0.32)
Observations	1,096	1,096	820	886

Notes: Observations are at the county and decade level. The dependent variables are the log of the total population (col. 1), a dummy variable equal to 1 if the share of labor force in mining is above median (col. 2), the log of total manufacturing output (col. 3), or the number manufacturing establishments. *High Chinese Share in Bordering Counties* is a dummy equal to 1 if the average 1880 Chinese share of the bordering counties weighted by the length of the shared border is above the median of the distribution of the 1880 Chinese share. All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. Col. 4 reports the results of a Poisson regression. The data are from full count U.S. Censuses, the *Historical, Demographic, Economic, and Social Data* (ICPSR 2896), and the *United States Agriculture Data* (ICPSR 35206) between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.10: Robustness Check – WInsorize Outcome Variables

	Dependent Variable								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	A. Chinese Workers								
	Population	**LF Total**	**LF Mfg.**	**LF Mining**	**LF Railroad**	**Skilled**	**Unskilled**	**Managers**	**Score**
Dependent Variable Mean	*3.371*	*3.012*	*0.626*	*0.585*	*0.317*	*1.503*	*2.608*	*1.272*	*3.012*
– in 1880	*5.263*	*5.150*	*1.816*	*2.220*	*0.983*	*2.333*	*5.017*	*1.896*	*2.940*
Post x High Chinese Share	-1.60***	-1.52***	-0.42**	-1.86***	-0.17	-1.10***	-1.50***	-0.86***	-0.17***
	(0.30)	(0.28)	(0.17)	(0.31)	(0.11)	(0.25)	(0.27)	(0.22)	(0.04)
Observations	1,096	1,096	1,096	1,096	1,096	1,096	1,096	1,096	879
	B. White Workers								
	Population	**LF Total**	**LF Mfg.**	**LF Mining**	**LF Railroad**	**Skilled**	**Unskilled**	**Managers**	**Income Score**
Dependent Variable Mean	*9.118*	*8.070*	*5.317*	*4.106*	*4.192*	*6.613*	*6.779*	*5.224*	*3.079*
– in 1880	*8.392*	*7.478*	*4.882*	*4.047*	*2.644*	*5.934*	*6.435*	*4.557*	*3.059*
Post x High Chinese Share	-0.44***	-0.52***	-0.56**	-0.97***	-0.73***	-0.60***	-0.75***	-0.66***	-0.06***
	(0.17)	(0.17)	(0.25)	(0.29)	(0.24)	(0.19)	(0.20)	(0.19)	(0.02)
Observations	1,096	1,096	1,096	1,096	1,096	1,096	1,096	1,096	1,096
	C. Manufacturing and Agriculture								
	Mfg. Output	**Proxy for Mine**	**Value Farm Land**						
Dependent Variable Mean	*9.837*	*0.476*	*11.46*						
– in 1880	*8.105*	*0.475*	*9.805*						
Post x High Chinese Share	-1.14**	-0.12**	-0.45**						
	(0.47)	(0.06)	(0.20)						
Observations	820	1,096	442						

Notes: Observations are at the county and decade level. The dependent variables in Panel A and Panel B are the log of total population (col. 1), the log of the total labor force (col. 2), the log of the labor force in the sector stated in the column headings (col. 3 - col. 5), the log of total number of workers in the skill category stated in the column headings (col. 6 - col. 8), or the log of the occupational income score (col. 9). The dependent variables in Panel C are the log of the total manufacturing output (col. 1), a dummy variable equal to 1 if the share of labor force in mining is above median (col. 2), or the log of the value of farm land (col. 3). All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. All the dependent variables are winsorized at the 1st and 99th percentile. The data are from full count U.S. Censuses, the *Historical, Demographic, Economic, and Social Data* (ICPSR 2896), and the *United States Agriculture Data* (ICPSR 35206) between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A.11: Robustness – Weight by Total County Population

	Dependent Variable								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	A. Chinese Workers								
	Population	**LF Total**	**LF Mfg.**	**LF Mining**	**LF Railroad**	**Skilled**	**Unskilled**	**Managers**	**Score**
Dependent Variable Mean	*6.151*	*5.533*	*2.543*	*0.631*	*1.093*	*4.236*	*4.830*	*3.673*	*3.083*
-- in 1880	*7.740*	*7.624*	*5.046*	*2.856*	*2.874*	*5.102*	*7.397*	*4.274*	*2.957*
Post x High Chinese Share	-1.30***	-1.17***	-0.30	-2.30***	-0.31	-1.28***	-1.02**	-1.14***	-0.16***
	(0.41)	(0.41)	(0.44)	(0.44)	(0.30)	(0.42)	(0.43)	(0.41)	(0.05)
Observations	1,096	1,096	1,096	1,096	1,096	1,096	1,096	1,096	879
	B. White Workers								
	Population	**LF Total**	**LF Mfg.**	**LF Mining**	**LF Railroad**	**Skilled**	**Unskilled**	**Managers**	**Income Score**
Dependent Variable Mean	*11.75*	*10.62*	*8.447*	*6.154*	*7.049*	*9.639*	*9.347*	*8.074*	*3.225*
-- in 1880	*10.34*	*9.285*	*7.051*	*5.451*	*5.097*	*8.225*	*8.264*	*6.837*	*3.186*
Post x High Chinese Share	-0.42	-0.50*	-0.55*	-1.38***	-0.64**	-0.61**	-0.71***	-0.72***	-0.06***
	(0.26)	(0.26)	(0.33)	(0.37)	(0.31)	(0.28)	(0.26)	(0.27)	(0.02)
Observations	1,096	1,096	1,096	1,096	1,096	1,096	1,096	1,096	1,096
	C. Manufacturing and Agriculture								
	Mfg. Output	**Proxy for Mine**	**Value Farm Land**						
Dependent Variable Mean	*13.57*	*0.462*	*12.75*						
-- in 1880	*11.30*	*0.267*	*11.07*						
Post x High Chinese Share	-0.99**	-0.21**	-0.41						
	(0.43)	(0.09)	(0.27)						
Observations	820	1,096	442						

Notes: Observations are at the county and decade level. The dependent variables in Panel A and Panel B are the log of total population (col. 1), the log of the total labor force (col. 2), the log of the labor force in the sector stated in the column headings (col. 3 - col. 5), the log of total number of workers in the skill category stated in the column headings (col. 6 - col. 8), or the log of the occupational income score (col. 9). The dependent variables in Panel C are the log of the total manufacturing output (col. 1), a dummy variable equal to 1 if the share of labor force in mining is above median (col. 2), or the log of the value of farm land (col. 3). All regressions control for a dummy variable that equals 1 if the county is connected to a railroad in year t, a dummy variable that equals 1 if the county ever had a mine during 1870-1940 interacted with decade fixed effects, and county and state-by-decade fixed effects. All the regressions are weighted by total county population. The data are from full count U.S. Censuses, the *Historical, Demographic, Economic, and Social Data* (ICPSR 2896), and the *United States Agriculture Data* (ICPSR 35206) between 1870 and 1940. The standard errors, clustered by county, are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.