

The Hinge of the Golden Door: Labour Market Impacts of Immigrant Exclusion

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Extended Abstract

The effect of immigration on domestic economic wages, employment and occupational mobility remains a contentious issue in contemporary economics and wider society. Understanding the labour market impacts of low-skilled migration restrictions is becoming of increasing importance for both policymakers and the public, as evidenced by debates over current and proposed immigration such as Mexican and Central American migration to the United States and Brexit in the United Kingdom. Despite its important policy implications, much of the literature has focused on low-skilled immigration inflows, particularly forced migration, rather than legislative restriction of such immigration. In this paper I analyse the long-term labour market effects of America's first ever significant immigration restriction, the Chinese Exclusion Act of 1882, described as "the hinge on which the golden door began to swing almost shut" (Daniels 2002).

Theoretically the effects of immigration restrictions are ex-ante ambiguous. Under standard neoclassical labour market models, a low-skilled labour shortage caused by the immigration restrictions should raise native low-skilled wages, increase employment for displaced native workers, and decrease competition for occupational upgrading. However recent empirical evidence suggests there may be numerous wider economic effects not included in the standard labour market model that may negate positive immigration restriction effects and even result in net negative effects for native workers. These include stimulating the pace of mechanisation (Clemens et al. 2018, Lew & Cater 2018), increasing immigration internally or from unrestricted regions (Dustmann et al. 2017, Abramitzky et al. 2019), encouraging native upskilling (Mandelman & Zlate 2022, Hunt 2012), decreasing local aggregate demand (Hong & McLaren 2015), and a lack of substitutability between native and migrant labourers (Mayda et al. 2017).

Economists are increasingly looking back to historical immigration restrictions to examine these multi-faceted effects in different market structures. Concerns over the labour

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market impacts of low-skilled immigration are by no means new, with significant nativist political movements appearing in the United States from the 1840s advocating immigration restrictions (Alsan et al. 2020). Prior to 1882, the United States had an open border policy where any migrant, regardless of ethnicity or origin, could immigrate with effectively no restrictions. The Chinese Exclusion Act of 1882 was passed largely in response to native labour market concerns and prohibited the immigration of Chinese labourers. Overnight, Chinese immigration collapsed to almost zero, with the exception of a small number of diplomats, students and merchants, making the Chinese the only ethnicity that could not freely immigrate to the United States for nearly half a century. I analyse whether this immigration exclusion had the intended impact of improving native labour market outcomes.

I utilise the quasi-exogenous ethnic targeting of Chinese labourers and variation in policy exposure based on pre-1882 Chinese settlement patterns to analyse the effect of the Chinese immigration ban on native labour market outcomes. Linked Census data for the entire universe of working age males in the US is used to calculate individual-level long-term occupational mobility, providing one of the most detailed and extensive analyses of the effect of immigration restrictions. Income was not directly measured until the 1940 Census, therefore I use historical occupational income score as the main labour market outcome.

Chinese workers represented only a small portion of the overall male US workforce pre-1882 (around 0.8%) but were highly geographically concentrated, resulting in certain labour markets having heavy Chinese presence but most having virtually none. Thus the effects of the Chinese exclusion are likely to have strong labour supply effects in treatment labour markets, but unlikely to have spillover effects to the wider economy.

However Chinese settlement location is naturally endogenous to the domestic labour market. To overcome this I construct a matching difference-in-difference setup that exploits compositional rather than level differences in foreign-born share between regions, with coarsened exact matching on both individual and labour market pre-1882 characteristics. This ensures comparisons between individuals of similar ages, working in the identical occupations and industries, facing similar labour markets with similar foreign-born shares, but differing only in whether the foreign-born component of the workforce includes a substantial proportion of Chinese workers¹.

I find the Chinese Exclusion Act had a significant negative impact on native labour market outcomes. Workers in industries with strong Chinese presence had significantly lower long-term occupational mobility than similar workers unexposed to the Chinese exclusion. Negative effects were also found for various sub-populations likely to have greater exposure to immigration bans, including low-skilled workers, young workers, non-workers and non-farmers. The results are robust to alternative matching covariates, Census linking methods, treatment thresholds and empirical specifications.

The key identifying assumption is that, conditional on the matching covariates and existing foreign-born share, occupational mobility trends would not have diverged between labour markets of different Chinese immigrant shares in the absence of the Chinese Exclusion Act. Given the heavy geographic concentration of Chinese workers, with over 97% of Chinese living in the Western Census region in 1880, there are concerns that the assumption would

¹The Census occupational codes are quite granular with over 300 occupations, while I collapse industry codes into nine rough categories

be violated if the American West was on a different labour market trajectory than the rest of the US. I address these concerns in two ways. Firstly I limit the sample to only the Western Census region and find the results very similar to the full sample analysis. Secondly I consider a placebo legislation date utilising the fact that an earlier version of the Chinese Exclusion Act passed both Houses in 1878, but was vetoed by President Rutherford B. Hayes. Using the placebo 1870-1880 panel, I find Chinese labour market presence had no significant effect on occupational mobility, lending support for the parallel trends assumption.

As the occupational income score is calculated as the national average income per occupation, regional differences in income by occupation are not observed. Therefore there may have been within-occupation income shocks in Chinese exposed labour markets that would not have been captured by occupational income score. To test for this I analyse the inter-generational income effects of the Chinese Exclusion Act: I compare the income in 1940 (first Census recording income) of children born just before the Act implementation between exposed and unexposed fathers. Early childhood income shocks have consistently been shown to have significant, long-lasting impacts on adult labour market outcomes, particularly in developing economies (Smith 2015). Therefore a meaningful income shock for exposed workers as a result of the Chinese Exclusion Act would likely affect the adult earnings of their young children. I find no significant effects on adult earnings as a result of father exposure to the exclusion.

These findings raise the question as to why immigrant exclusion worsened native labour market outcomes, contrary to standard economic theory. I explore numerous potential mechanisms to explain the findings. Firstly I examine the effects of the Chinese Exclusion Act on native education levels. Although there is no direct data on education levels, I find workers exposed to Chinese exclusion ended up in occupations with lower average education rates and were more likely to remain illiterate. This is consistent with modern evidence suggesting low-skilled immigration increases competition for low-skilled employment, encouraging low-skilled natives to invest in upskilling (Hunt 2012, Mandelman & Zlate 2022).

Secondly, I analyse population flows as a result of the Act. I find that in the long-run any immigrant labour shortages as a result of the Chinese Exclusion Act were largely cancelled out by increase inflow to exposed labour markets from immigrants from unrestricted regions. These findings are consistent with both historical and modern evidence indicating immigration labour shortage effects are mitigated by substitution in labour source (Abramitzky et al. 2019, Dustmann et al. 2017). I find no evidence to support local aggregate demand effects, as the exclusion had no significant effect on workers who resided in treatment labour markets but who worked in industries without a meaningful Chinese presence.

Finally, an important aspect of any immigration restriction is how industries respond with regards to native employment and capital expenditure. I find the Chinese Exclusion Act had heterogeneous effects on industry-level native employment. Mining industries in affected markets significantly increased native employment, while native employment in agriculture and manufacturing industries decreased. This heterogeneity is consistent with the availability of labour-saving technology in the 1880s. Combine harvesters in agriculture and hydraulic and pneumatic devices in manufacturing were becoming commercially available in the late nineteenth century (Hunter & Bryant 1979, Constable & Somerville 2003). Mining, on the other hand, simply lacked substitutable capital and was heavily reliant on manual labour until the 1940s (Dix 1988). Thus the results would suggest agricultural and manufacturing

industries responded to the labour shortage by increasing the level of mechanisation, resulting in a net loss for workers in those industries. I corroborate this by analysing changes in industry capital expenditure from the Censuses of Manufactures, Mining Industries, and Agriculture.

This paper the first quantitative analysis of the effect of the landmark Chinese Exclusion Act on economic outcomes for native-born Americans. Chen (2015) and Chen & Xie (2020) examine the effects of the Act on the Chinese migrants themselves, but to the best of my knowledge this is the first to examine the effects on native workers. Analysing the impacts of the Chinese Exclusion Act represents an important contribution in itself as a landmark moment in American immigration. It was the first substantial step the United States took in the transformation from a nation welcoming all immigrants to so-called 'gatekeepers', creating the legal foundations as well as the border protection infrastructure that defines US immigration policy today Hsu (2004). The Act is also the first and to-date only explicitly ethnically-targeted immigration exclusion in American history.

I also contribute to the broader literature empirically estimating the effect of immigration on native labour market outcomes. Beginning with the seminal paper by Card (1990) on the Mariel Boatlift, the literature has largely focused on permanent, often involuntary immigrant inflows. This paper adds to the relatively under-researched area of the effect of low-skilled immigrant restrictions on native labour market outcomes, which has arguably more relevant immigration policy implications. Two main case studies that have been analysed are the 1920s US immigration quotas (Ager & Hansen 2017, Lew & Cater 2018, Abramitzky et al. 2019, Tabellini 2020) and Mexican-US border restrictions (Lee et al. 2017, Clemens et al. 2018). My findings largely correspond with the general consensus of mixed to negative effects of immigration restrictions and lend support to several proposed negative labour market mechanisms including increased immigration from unrestricted regions and increasing mechanisation. My paper is the first to show immigration restrictions discouraging native upskilling, although the converse has been demonstrated with immigration inflows (Mandelman & Zlate 2022, Hunt 2012). My paper also provides the first quantitative analysis of inter-generational effects of immigration restrictions due to early childhood income shocks.

However, the main contribution of the paper to the broader immigration debate is the unprecedented breadth and detail of the empirical analysis. To the best of my knowledge, no study has used individual-level labour market outcomes for the entire universe of workers in the US. Not only does this allow for a population-level analysis with increased power, the large sample size allows for highly detailed matching on pre-treatment characteristics at both an individual and labour market level. This ensures comparison between highly similar workers facing highly similar labour markets, improving causal inference and mitigating concerns of confounding factors.

Furthermore the unique case study of the Chinese Exclusion Act provides several advantages over previous immigration restriction case studies. Firstly, the Chinese Exclusion Act provides a much sharper and cleaner immigration shock. The passing of the Act immediately transformed Chinese immigration from completely unrestricted to near-complete prohibition. Furthermore, the relatively small but highly concentrated nature of Chinese immigration ensures the exclusion effects are targeted with minimal spillover effects, as opposed to other case studies that analyse much broader immigration restrictions. Secondly, the targeting of Chinese migrants over other low-skilled migrants was largely a result of

geopolitical concerns unrelated to the domestic labour market or otherwise unique Chinese labourer characteristics, making the exclusion of Chinese quasi-exogenous. Thirdly, there was minimal illegal immigration from China in the first couple of decades after the exclusion implementation to potentially confound the analysis (Hsu 2004), unlike other case studies such as Mexican-US immigration (Kaestner 2020). Finally, the historical economy during this period was much more reliant on agriculture, mining and manufacturing, with native labourers being much more comparable and substitutable with Chinese labourers in skills, legal working rights and labour regulations than low-skilled migrants today (Abramitzky & Boustan 2017). Therefore the economy of this period provides the ideal conditions for any hypothetical wage depressing or job taking effects.

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