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Essays in Labor Economics, Political Economy, and Economic History

This dissertation studies topics in American economic history that intersect with labor economics and political economy. The three chapters focus on understanding how shifts in labor supply, immigration policies, and political connections shape labor market dynamics and economic outcomes.

CLOSING RANKS: ORGANIZED LABOR AND IMMIGRATION

Labor unions have long been central institutions in the labor markets of advanced economies. Throughout the twentieth century, they played a critical role in reducing inequality (Farber et al. 2021), improving working conditions (Rosenfeld 2019), shaping policy (Ahlquist 2017), and influencing political systems (Acemoglu and Robinson 2013; Kaplan and Naidu 2024). Despite fluctuations in membership, unions remain pivotal in today’s economy (Jäger, Naidu, and Schoefer 2024). Yet, considering

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their sustained importance, there is surprisingly little evidence on the drivers of unions' emergence and growth.

This chapter aims to fill this gap with systematic empirical evidence by studying the effect of a large and protracted increase in labor supply on the formation and expansion of labor unions, leveraging the episodes of mass immigration to the United States of the early twentieth century (Medici 2024). The effect is *ex ante* ambiguous, as it influences both workers' incentives to organize and employers' ability to undermine organized labor. On the one hand, increased job competition can motivate workers to unionize in response to economic threats to their employment and wages. On the other hand, a larger labor supply reduces the cost for business owners to replace uncooperative workers and break strikes. Thus, how an increased labor supply impacts unionization is ultimately an empirical question.

This study addresses two key challenges in examining the relationship between immigration and unionization. The first is the need for disaggregated data on the presence and membership of labor unions. The second is establishing causal effects. To measure unionization, I hand-collect and digitize archival records on unions affiliated with the American Federation of Labor (representing over 80 percent of union members nationwide) for the period 1900–1920, to measure the location, quantity, and membership of labor union branches across the United States. These data constitute the first comprehensive dataset measuring historical union presence and density at the local level in the United States. To estimate the causal effect of immigration, I construct a shift-share instrumental variable (Card 2001) to exploit plausibly exogenous variation in the flow of immigrants across counties in each decade. The instrument interacts the 1890 share of immigrants living in a given U.S. county and born in different European countries with the aggregate immigration flows from each country to the United States between 1890 and 1920.

The main results show that immigration fostered the emergence of organized labor. Counties that received more immigrants as a fraction of the population experienced an increase in union presence, the number of union branches, the share of unionized workers, and the number of union members per branch. This finding empirically documents a novel driver of unionization and highlights an unexplored effect of immigration in the labor market. Immigration spurred unionization both at the intensive and extensive margins, as counties with an existing labor movement experienced a growth in union size, while new counties saw the establishment of labor unions. A back-of-the-envelope calculation reveals that, in the absence of immigration, the average union density between 1900 and 1920 would have been 22 percent lower.

The second part of the chapter examines the mechanisms behind the expansion of organized labor. First, immigration strengthened labor unions primarily among skilled workers, especially in counties with higher exposure to labor competition from immigrants. In contrast, it had no statistically significant effect on the unionization of low-skilled workers, whose bargaining power was weakened by the increased availability of inexpensive labor. Second, unionization grew more prominently following an influx of culturally distant immigrants and in areas with less favorable attitudes toward immigration, as indicated by historical vote shares for the Know Nothing Party or baseline levels of residential segregation between U.S.-born individuals and European immigrants. Notably, the results suggest that this effect is unlikely to be explained by immigrants disproportionately joining or forming unions.

In summary, these findings show that immigration substantially contributed to the emergence and expansion of organized labor in the early twentieth-century United

States. The evidence is consistent with existing workers unionizing in response to immigration, driven by both economic and social motivations.

THE IMPACT OF THE CHINESE EXCLUSION ACT ON THE ECONOMIC DEVELOPMENT OF THE WESTERN UNITED STATES

In 1882, the U.S. government introduced the Chinese Exclusion Act, which banned laborers born in China from entering the United States and China-born individuals already residing in the United States from obtaining citizenship or re-entering the country. A central motivation was economic, as proponents argued that Chinese workers reduced economic opportunities for white workers. At the same time, many business owners opposed Chinese Exclusion, worrying that highly productive Chinese labor could not be easily replaced and that a wide-sweeping ban would lead to significant economic losses. There is little empirical evidence on whether these concerns were valid and on the consequences of this policy on white workers and economic activity.

This chapter aims to fill this gap and provide novel and rigorous empirical evidence on the economic effects of the Chinese Exclusion Act (Long et al. 2024). Such effects are ambiguous *ex ante*. On the one hand, reducing the number of Chinese workers can reduce competition for jobs, which can increase wages and employment for other workers (Borjas 2003). On the other hand, it can decrease the demand for other workers or lower their wages, if there are economies of scale or if Chinese workers complement them in production (Ottaviano and Peri 2012). The net effects and their evolution over time are empirical questions.

The analysis examines a county-level panel for the period 1850–1940 for the eight western states where almost all Chinese immigrants resided, using a difference-in-differences strategy that exploits time variation from the introduction of the Act and cross-sectional variation in treatment intensity across counties. The Chinese Exclusion Act should have had little direct effect on counties with few Chinese residents and larger effects on those with many Chinese residents at the time of its enactment.

The results indicate that, as expected, the Act drastically reduced the Chinese labor supply. Contrary to the expectations of its proponents, however, the Chinese Exclusion Act also reduced the labor supply and occupational income scores of white workers, who were the intended beneficiaries of the policy. Moreover, the Act negatively impacted the manufacturing industry, a key and fast-growing sector for the economy of the U.S. West during this period and one where Chinese workers were highly concentrated. Chinese Exclusion reduced manufacturing output, the number of establishments, and labor productivity. Since the western United States grew rapidly during this period, these estimates should be interpreted as a slowdown in growth and not as a decline in levels.

There are two main concerns when interpreting the results. The first one is that, even in the absence of the Chinese Exclusion Act, counties with a larger Chinese population share would have experienced an economic decline. To address this, we use the eastern United States as a “placebo” sample and compare labor force and economic outcomes in counties that, based on their 1880 characteristics, would have had many Chinese immigrants to those that would have had few in the hypothetical scenario that Chinese arrived from the Atlantic. Reassuringly, we find that counties with high hypothetical Chinese shares grew more—and not less—than those with low hypothetical Chinese shares after 1880. The second concern is that the Act might have caused labor and economic activities to move from counties that had a high Chinese share in 1880 to others within the

West. The results indicate no spillovers to nearby areas, implying that reallocation does not drive the results.

The last section of the chapter sheds light on the mechanisms underlying the main results. Consistent with travel costs and information frictions making it hard for employers to replace the “missing” Chinese workers, the results are larger in counties that were less connected to the rest of the country. Moreover, the negative effects on labor supply are driven by white men born outside the western states. These findings suggest that the Act discouraged prospective white migrants from moving to the West and support the interpretation that the Chinese Exclusion Act reduced the aggregate economic development of the West. Second, consistent with the presence of complementarities between Chinese and white workers, we find that places that lost more skilled Chinese workers also experienced a larger decline in skilled white workers and manufacturing output.

Although the magnitudes of the estimates are specific to this context, the insights that the loss of productive immigrant labor can have adverse economic effects on the remaining workers are generalizable. In particular, the findings indicate that this can occur in settings where immigrant workers are concentrated in key economic sectors (as the Chinese were in the mining, railroad, and manufacturing industries) or when they are not easily replaceable by other workers or technology.

POLITICAL CONNECTIONS, CAREERS, AND PERFORMANCE IN THE CIVIL SERVICE: EVIDENCE FROM U.S. FEDERAL JUDGES

Political appointments are the primary method for selecting public sector workers worldwide (Lim and Snyder Jr 2021). Judicial appointments follow a similar pattern: by 2021, 70 percent of the world’s nations filled court positions through presidential appointment (CIA 2021). Despite this, there is surprisingly little evidence of the consequences of politicians’ influence in judicial nominations.

In this chapter, we leverage the appointment process of U.S. federal judges to provide the first within-judge estimates of how political connections influence judicial performance (Medici and Pulejo 2024). Federal judges in the United States are nominated based on recommendations from home-state senators who share the same party affiliation as the president. Using individual-level data on judges and senators from 1789 to 2019, we link each judge to their recommending senators. We then use a difference-in-differences design to analyze how the departure of these senators from Congress impacts judges’ productivity and careers.

The main results indicate that district court judges produce fewer judicial opinions—a well-established measure of judges’ output—after their recommending senators exit office. A reduction in the number of opinions issued could indicate decreased effort—such as judges taking longer to work on a case, resulting in fewer cases closed per year—or increased care in crafting decisions. The results show no significant improvement in the quality of judicial opinions following recommenders’ exit, as measured by the opinions’ length, number of citations included, and number of citations received. Event-study estimates confirm that judges’ output begins to decline only after their recommenders leave the Senate, supporting the parallel trends assumption underlying our identification strategy.

To ensure that the negative effect on judicial productivity is driven by the loss of connections with home-state senators, we present two additional results. First, we

document that the treatment effect remains negative and significant when a judge's recommender is replaced by a co-partisan. Second, we conduct a falsification test on judges who, at the time of their nomination, had no home-state senators from the president's party and show that they do not experience any change in output once such senators leave Congress.

Next, we explore the mechanisms linking the loss of senatorial connections to the observed decline in judges' productivity. We find a large negative effect of recommenders' exit on judges' probability of being promoted to an upper-level court, implying that the loss of political connections essentially shuts the door to judges' advancement within the U.S. federal judiciary. These results suggest that the reduction in effort is likely driven by an erosion of career incentives. In accordance with the rules for federal judicial nominations, this impact is more prominent in years when judges share partisanship with the sitting president and thus can benefit from the support of their senatorial connections.

In summary, these findings highlight how political appointments can incentivize civil servants through career concerns but also show that these incentives are closely tied to the tenure of their political patrons.

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Essays on Inequality in Cities: Evidence from the Interstate Highway System

This dissertation investigates the impact of the largest infrastructure project in American history—the Interstate highway system—on inequality by race and class and its lasting intergenerational consequences on children’s outcomes. It is organized into two core projects. First, I examine the contemporaneous effects of highway infrastructure where I follow a quantitative approach to elucidate the key forces behind the unequal effects and highlight the role of institutions for disparities by race. As a result of exclusionary institutions that limited access to areas outside of the urban core for Black families, they benefit far less from highway development than in the absence of these spatial barriers. Second, I consider how the permanent transformation of neighborhoods brought about by the Interstate system altered the geography of opportunity for long-run individual outcomes. Building on these results, I provide a general framework for measuring the aggregate impacts of place-based policies on intergenerational mobility.

Both projects draw on several rich historical datasets I have constructed from restricted Census micro-surveys, digitized archival maps, and historical tax forms covering the entire country for the mid-twentieth century. To build these new data for a tremendously large number of observations, I employ several computationally intensive geospatial and machine-learning methods. I describe my findings and methodological approach in more detail next.

UNEQUAL ACCESS: RACIAL SEGREGATION AND THE DISTRIBUTIONAL IMPACTS OF INTERSTATE HIGHWAYS IN CITIES

The Interstate highway system is a defining infrastructure project of American history and was characterized by two main transformative impacts. Its central aim was to facilitate commuting between locations, and these benefits motivated federal policymakers to invest monumental sums of funding toward its construction. On the other hand, highways also came with substantial costs such as local pollution, noise, and the splitting of existing communities (Mohl 2004; Currie and Walker 2011).

In my primary dissertation project (Weiwu 2024a), I investigate the distributional consequences of the Interstate system, which historical narratives have previously suggested increased inequality in cities, for example, Caro (1974), Jackson (1985),

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