When Progressives Took Power. The Political and Economic Effects of Municipal Reform in U.S. Cities *

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Abstract

How did Progressive era reforms affect the lives of residents in U.S. cities? Some scholars argue the Progressive movement primarily benefited white business elites at the expense of disadvantaged groups, while others emphasize that reformers aimed to improve urban living and working conditions and expand educational access. We study the effects of this movement leveraging deanonymized census records, voter turnout data, newly digitized municipal budgets, and reform adoption dates across 455 U.S. cities from 1900 to 1940. Using a difference-in-differences design, we document the impact of Progressive reform on political participation, public goods spending, and the relative socioeconomic well-being of black, immigrant, and working-class residents compared to whites, natives, and business elites. We find that voter turnout decreased in reformed cities, but earnings inequality increased only modestly, with no significant differences in expenditure patterns, suggesting the impacts of these reforms were concentrated in the political rather than the economic sphere.

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1 Introduction

How did the municipal reform movement of the Progressive era affect the social and economic lives of urban residents? This question is at the center of a long literature in urban politics that focuses on whether the Progressive agenda helped or harmed less advantaged communities, including immigrants, African Americans, and the less affluent. Some researchers emphasize the fact that reformers of this era sought to clean up government corruption, address the poor living conditions of the working class, introduce basic forms of social insurance, and end exploitative labor practices (Bremner 1956; Davis 1984; Faulkner 1937). But other scholars have pointed out that the Progressive movement was comprised primarily of white, Protestant, and highly educated middle and upper-class Americans (Weinstein 1969; Hays 1964; Buenker 1973). This research tradition concludes that racist and nativist streaks permeated many of the movement's goals, and achieving reform often required disenfranchising poor, working class, and immigrant voters (Bridges 1999).

The question of how harmful or beneficial the Progressive agenda was for these groups remains unresolved in part because the historiography often focuses on the experiences of particular communities in particular cities. Scholars have documented the rise and fall of Irish machines in major cities like New York in the early 20th century (Erie 1990), described how Italians fared in Boston's West End (Gans et al. 1982), and analyzed the political incorporation of Germans, Irish, and Poles in Detroit (Zunz 2000). Bridges (1999) explores the ascent of municipal reformers in the Southwest with a focus on the political participation of the poor and racial minorities, while Stone, Price, and Stone (1940) describes the opposition of working class residents to reforms in nine urban cities. While these rich case studies offer nuanced accounts of who benefited from Progressive policies across specific local contexts, to date we largely lack systematic empirical research on the overall effects of the Progressive reform movement on the socioeconomic lives of urban residents across the U.S.[1]

[1]For a review of the historical and sociological literature, see Fox (2012) and Leonard (2016).

We bring new data to bear on these old questions. Complementing recent scholarship on the Progressive Era that involves large-scale data collection efforts (Kuipers and Sahn 2022; Anzia and Trounstine 2022: e.g.), we draw from (1) de-anonymized census records at the individual level, (2) newly digitized city financial statistics, (3) dates of municipal reform which we hand collected from primary sources, and (4) estimates of electoral participation at the county level. Collectively, our data cover 455 U.S. cities and span the period from 1900 to 1940. We focus specifically on reforms that led to the adoption of a council-manager or city commissioner form of government. Considered the most extreme example of municipal reform, changes to the structure of government have been one of the longest lasting Progressive legacies (e.g. Holli 1969; Bernard and Rice 1975). This change was typically accompanied by the adoption of at-large elections and non-partisan ballots Griffith (1927); Banfield and Wilson (1966); Bridges (1999); Lee (1960) and serves as an effective proxy for when Progressives gained control of the city government. We further discuss the theoretical and empirical rationale for focusing on this particular reform in section 2, and we present both quantitative and qualitative evidence in section 6 to validate the idea that the adoption of reform-style government reflected a key moment when Progressives assumed power.

Our research design exploits the fact that U.S. cities varied in whether and when they reformed. This allows us to study how city life changed around the time of the reform by comparing differences in socioeconomic and political outcomes of various groups in reformed cities vis-a-vis in cities that did not reform. In order to avoid bias arising from heterogeneous treatment effects in staggered difference-in-differences designs (e.g. Xu 2017; Goodman-Bacon 2021; De Chaisemartin and d'Haultfoeuille 2020), we follow the approach proposed by Cengiz et al. (2019) and compare reform cities only to cities that never reform. Importantly, since the timing of reform cannot be considered random, we then employ a weighting strategy introduced by (Hazlett and Xu 2018), which ensures that outcomes in reform and non-reform cities follow similar trends in the pre-reform period.

We use individual-level census data covering the period 1900-1940 to construct measures of the socioeconomic standing of several groups of urban residents. In particular, we compare the outcomes of more advantaged groups—natives, whites, and members of the business elite—to those of immigrant, black, and non-business workers. As our primary measure of economic well-being we use the average predicted wage earnings of each group, which we compute following the procedure outlined in Abramitzky et al. (2021). We also analyze four additional socioeconomic outcomes: the employment rate within each group, the share holding a local government job, literacy rates, and city-level occupational segregation across groups.

Overall, our results show that the earnings gap between more and less advantaged residents increased in cities that adopted reform-style government, but the magnitude of the effect is small. The reform had no significant impact on the earnings of immigrant and native residents. The earnings of business residents increased by 0.6 percent following the reform, while the earnings of black and non-business residents decreased by 1.5 percent and 0.7 percent, respectively. These effects result in a statistically significant but relatively small widening of the white-black and business versus non-business earnings gap. Consistent with these limited effects on earnings, we show that other socioeconomic outcomes did not change systematically in reformed vs. non-reformed cities. Crucially, we find that failing to account for the endogeneity in the timing of reform adoption would significantly affect our estimates: an estimation strategy that does not employ our weighting method would result in estimates that are twice as large as the true treatment effect on the native-immigrant gap. While we observe some evidence of distributional effects, we show that a wider earnings gap between more and less advantaged groups was not the price for more city growth: we document that reform cities did not experience higher aggregate growth in earnings, population, or employment.

One possible concern is that the adoption of council-manager or commission government (what we call *reform-style government*) is an imperfect proxy for progressive power. In particular, due to data limitations we are unable to precisely observe when cities adopted other reforms such as non-partisan ballots and at-large elections. If cities tended to adopt these reforms around the same time, as the literature suggests (Griffith 1927; Banfield and Wilson 1966; Bridges 1999; Lee 1960), we can argue that the switch in form of government effectively captures the moment when progressives gained control of city government. If instead cities tended to adopt reform-style government without adopting these other measures, or if these other measures came much earlier or much later than the switch in form of government, the null effects we uncover might reflect a weak treatment. In section 6, we address this concern drawing from both quantitative data on the presence of non-partisan ballots at the end of the sample period as well as case studies from a subset of the reformed cities in our sample. We find strong evidence that the adoption of reform-style government tended to accompany other progressive reforms and was widely viewed as a moment when progressives seized power. We also observe no differences in outcomes for the small sample of cities that only adopted reform-style government without also instituting non-partisan ballots. Together, these analyses give us confidence that the adoption of the council-manager (or commission) systems serve as an effective proxy for the progressive agenda.

We next examine the effect of reform on political participation. As we discuss in the next section, there is little disagreement in the historiography that one of the consequences of the municipal reform movement was to restrict popular participation in politics (Martin 1933; Banfield and Wilson 1966; Judd and Hinze 2018). Fox (2012) provides suggestive evidence that, in aggregate, voter turnout in presidential elections decreased more in regions with a large number of reform cities, and Hajnal and Lewis (2003) shows that turnout is lower today in California cities that maintain various Progressive-era reforms. We offer new evidence that the adoption of reform-style government decreased turnout. Using historical data from Clubb, Flanigan, and Zingale (2006), we show that turnout in presidential and congressional elections decreased significantly in counties where cities reformed. This finding is consistent with ample evidence suggesting that the reforms enacted during this period stripped political power from immigrants, minorities, and poorer residents (Holli 1969; Karnig and Walter 1983; Caren 2007).

Finally, we also show that the reduction in electoral participation did not go hand in hand with significant changes in public goods provision. Leveraging newly digitized data from the Financial Statistics of Cities Bulletins, we show that cities that reformed did not decrease public spending, nor significantly change the allocation of government funds across different types of public goods. These results suggest that, on average, the Progressive agenda neither helped nor harmed disadvantaged communities to the extent suggested by existing literature, at least economically. The well-documented reduction in terms of electoral participation and descriptive representation of immigrants and working class residents (Weinstein 1969; Davidson and Korbel 1981; Trounstine 2009) appears to have only modestly hurt their economic prospects, if at all. In the next section, we describe the historical background of the municipal reform movement and flesh out the theoretical debates at stake.

2 Historical Context and Theoretical Perspectives

The late 19th and early 20th century marked a period of rapid urban growth in the United States. Cities spread beyond their original boundaries, and suburban communities emerged thanks to the development of new methods of urban transportation in the second half of the 19th century (Jackson 1987). This process of rapid urban expansion led to increasing administrative challenges, and city government often struggled to provide urban residents with adequate services (Glaab and Brown 1967). Population growth and density were associated with a rise in diseases, fires, water pollution, and overcrowding, which tended to disproportionately impact the living conditions of working class and immigrant residents in urban cores (Trounstine 2018). In this period, political machines often emerged in American cities as important providers of services for immigrants as well as poor communities generally and facilitated economic and social integration in exchange for political support (Schiesl 1977).

By the late 1800s, a reform movement began to emerge whose stated goal was to improve city life and living conditions and eliminate the graft, corruption, and patronage associated with machine-style politics (Buenker 1973; Renner and DeSantis 1993). Part of the broader Progressive movement in American politics, these municipal reformers sought to reorganize city administration. The reforms of this era centered around the introduction of the council-manager form of government, the adoption of at-large elections and non-partisan ballots, and civil service rules for municipal employees. However, while reformers often claimed that their agenda was designed to broadly improve city governance and provide better services for all residents (Stewart 1950), the movement combined contradictory impulses.

On the one hand, some historians have pointed out that the Progressive reform movement was fueled primarily by business interests and upper-middle class whites who feared the political influence wielded by foreigners, racial minorities, and poor people (Menes 2003; Merton 1968; Fox 2012; Lane 1962). Although urban poverty shocked the sensibilities of Progressives, many reformers believed the solution to such societal ills could only be achieved by reigning in the power of the lower classes (Weinstein 1969; Leonard 2016; Banfield and Wilson 1966). To achieve their goals, reformers called for various structural measures that would limit the ability of immigrants and ethnic minorities to exercise political power. While often enacted under the guise of reducing election fraud and streamlining governance, reforms such as voter registration, at-large elections, and non-partisan ballots made it more difficult for poor and minority voters to cast ballots and achieve representation on city councils (Buenker 1973). Additionally, early accounts portrayed the political machines of this era as sources of political power and vehicles of upward mobility for immigrants (DiGaetano 1988). Perhaps not surprisingly, the most active opposition to these reform efforts came from immigrant and working class voters (Bridges and Kronick 1999).

On the other hand, subsequent research has demonstrated that most machines relied on petty favors rather than encouraging immigrant communities to organize around their common economic and political interests. City machines often benefited only one ethnic group at the expense of others (usually the Irish), and machine politicians did little to improve the dangerous living and working conditions experienced by many immigrants (Judd and Hinze 2018; Erie 1990; Trounstine 2009). Moreover, even as Progressive Era reformers sought to weaken immigrant voting blocs politically, they also made important improvements to workplace conditions, passed child labor laws, advocated for safer housing, and expanded social services (Fox 2012). According to Kirschner (1975), early scholarship on the Progressive movement tended to sing the praises of urban reformers. "Their generous efforts to ease the burdens of the poor by limiting the working hours of women and children, improving factory, housing and health conditions, and introducing rudimentary forms of social insurance, according to this interpretation, mark[ed] them as path breakers to the New Deal and the modern welfare state" (Kirschner 1975).

Ultimately, while historians largely agree that the government reforms of this era reduced political participation among disadvantaged residents in cities (Stone, Price, and Stone 1940; Cassel 1986; Bridges and Kronick 1999), it is unclear what the overall socioeconomic impact was. While Progressives were often blatantly suspicious of immigrants, racial minorities, and the urban poor, their social policies may have still improved the economic well-being of those communities both directly and indirectly. As Leonard (2016) summarizes, "The great contradiction at the heart of Progressive Era reform was its view of the poor as victims deserving state uplift and as threats requiring state restraint. The unstable amalgam of compassion and contempt helps explain why Progressive Era reform lent a helping hand to those it deemed worthy of citizenship and employment while simultaneously narrowing that privileged circle by excluding the many it judged unworthy." The net effect on the economic and social lives of more disadvantaged groups and, more generally, which groups benefited when reformers gained power in cities, remains an open empirical question.

We shed light on this question by analyzing socioeconomic outcomes for various groups of residents around the time when cities switched to a council-manager or city commissioner form of government. While the Progressive movement was characterized by a series of reforms, we use the adoption of this new form of government as a proxy for Progressives gaining control of the apparatus of city government. Beyond being one of the most dramatic and long-lasting structural reforms of this era (Chambers 2000), this is one of the few reforms for which the date of adoption was systematically collected for every municipality across the country via the City Managers' Association (now the International City Management Association). Broadly, this reform sought to remove power from elected mayors and city council members and place policymaking authority with appointed city managers or city commissioners. The goal was to streamline decision-making, increase efficiency, and—importantly—make it difficult for machines and party bosses to engage in patronage (Judd and Hinze 2018).

Existing historical work suggests that changing the form of government itself was the most extreme example of reform (e.g. Holli 1969; Bernard and Rice 1975), and the vast majority of council-manager systems adopted other Progressive reforms at some point (Banfield and Wilson 1966). In 1914, (Griffith 1927) reported that the non-partisan ballot was "incorporated in the majority of new charters" of U.S. cities (Griffith (1927) p.271). A report from 1929 discusses how "the commission plan is of such a nature, that election at large is most practical" and indeed "only 5% of the cities elect their commissioners from wards or districts" (Detroit Bureau of Governmental Research 1931). Similarly, Lee (1960) found that 81% of U.S. cities with a commission or council-manager form of government had non-partisan election in 1929 (p.25) and that 83% of at-large cities were non-partisan by 1959 (Lee (1960) p25, 27, 28).

Case studies confirm that adopting reform-style government was typically associated with Progressives gaining power. In Cincinnati, the Republican Machine established by Boss George Cox had governed virtually unopposed for decades, until a group of reform-minded Democrats, Independents, and Republicans formed the City Charter Committee or Charter Party in 1924. The new municipal charter established in 1925 established a council-manager form of government, at-large elections, and non-partisan ballots, and the next city council election in 1926 ushered in the election of six "Charterites" to the city council and the first Democratic mayor in 40 years Burnham (1997). In Spokane, Washington, the Progressive Era reformer Charles Marvin Fassett was the city's lead advocate for the commission-style government. He was appointed as one of the first city commissioners in 1911 following the adoption of the new charter and was subsequently elected mayor in 1914 (Rice 2014). In Wichita, Kansas, Progressive residents in the city petitioned for an election in 1917 and voted to adopt the council-manager form of government. The new voting bloc ousted the incumbent mayor and elected five new self-professed reformers to the city commission (Stillman 1974). After presenting the main results, we present several additional case studies in section 6 to validate the idea that charter reform serves as a valid proxy for Progressive power.

We emphasize that adopting reform-style government represents a bundled treatment that was often accompanied by other reforms—such as non-partisan ballots and new voter registration rules—and marked a shift both culturally and politically (Bridges 1999). Some of these Progressive reforms and policies likely had direct effects on the jobs and social lives of less advantaged city residents. For example, we know that at-large elections and non-partisan ballots reduced turnout in immigrant neighborhoods and led to a higher proportion of occupational elites on city councils (Fox 2012; Cassel 1986). Civil service reforms also made it more difficult for immigrants to obtain municipal jobs via patronage, although recent research has demonstrated that these concerns are likely overstated (Kuipers and Sahn 2022). Any of the effects we observe are almost certainly the result of the multiple reforms that were part of the Progressive agenda.

Unfortunately, we were unable to find systematic data on when the cities in our sample adopted either non-partisan ballots or at-large elections, and civil service reforms were often adopted in the late 1800s before our outcome data are available. However, from the Municipal Yearbooks, we know which cities in our sample had adopted non-partisan ballots by 1940. After introducing the main results, we use this information to show evidence suggesting that our results are unlikely to be explained by our inability to observe the date of adoption of other reforms. Ultimately, the goal of this paper is not to isolate the impact of a specific reform, but to contribute to the debate about the overall effect of the Progressive legacy on the economic and social well-being of urban residents. In the next section, we introduce our data sources and research design.

3 Data

3.1 Data Collection

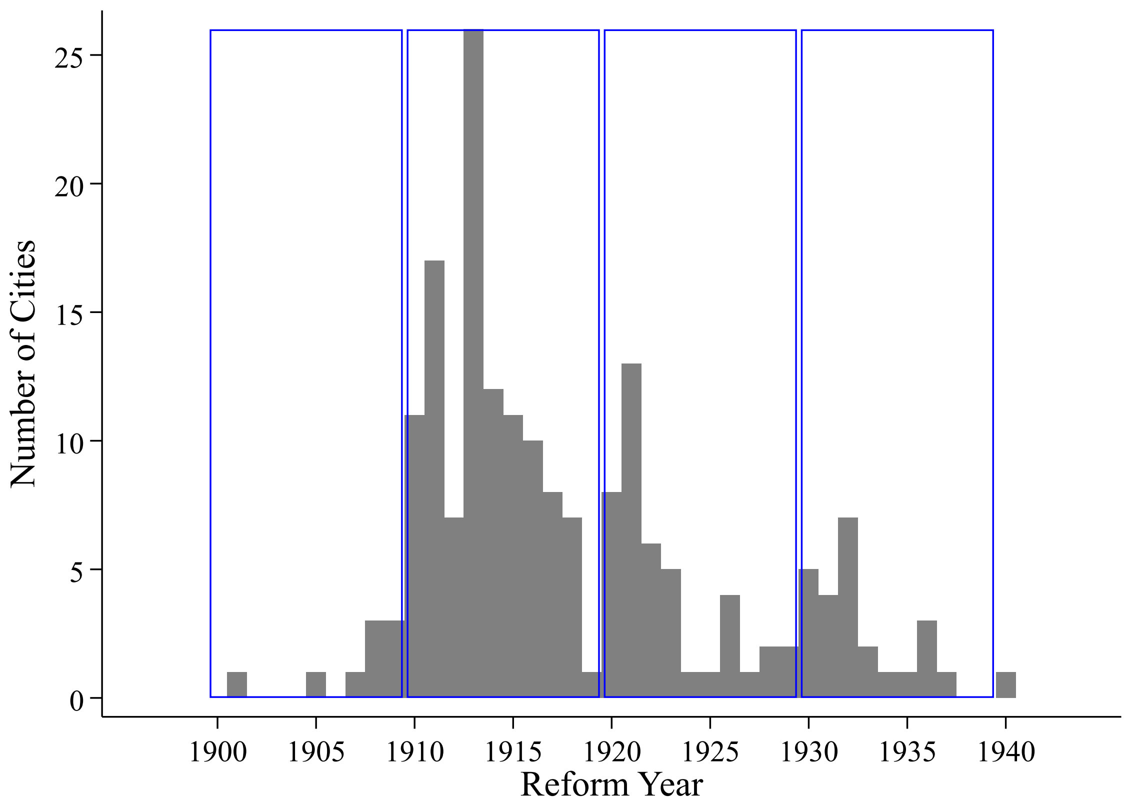
In this paper, we use the adoption of reform-style government (either council-manager or city commissioner form of government) to proxy for progressive power. The City Managers' Association (now the International City Management Association) kept detailed historical records of the list of cities that adopted this reform, along with the date of adoption.[2] Drawing from the Municipal Yearbooks of 1934 and 1940 and archival records available in Rice (2014), we collected data on the year of adoption of reform-style government for the 1,100 largest cities in the U.S.

Data on socioeconomic outcomes are constructed from individual-level census data available via the Integrated Public Use Microdata Sample (IPUMS) for the years 1900, 1910, 1920, 1930, and 1940. Every 72 years, the Census Bureau releases data at the individual level, which allows us to track a variety of outcomes for different groups of urban residents as cities experimented with new government institutions over the first half of the 20th century. Crucially, such comparisons are not possible with the more commonly used Census data aggregated at the location level, which does not allow one to construct socioeconomic variables that vary both at the city- and at the group-level.

[2] Unfortunately, no systematic data exist on the year of adoption of at-large elections and non-partisan ballots, which were two of the other common reforms of this time. We attempted to hand collect this data from `newspapers.com` and by emailing local municipal archives but had little luck. However, as described in Section 2, historians describe how these reforms were usually introduced after a transition to the council-manager form of government.

We combined data on the date of adoption of reform-style government with census data for the 1900-1940 period. In total, there were 455 cities that appeared in both the census data (for all five decades) and our dataset on municipal form of government, 186 of which reformed during our sample period. Figure 1 shows the number of cities that adopted a reform-style government in every year between 1900 and 1940. While the majority of reforms took place between 1910 and 1920, cities continued to change their form of government over the course of the sample.

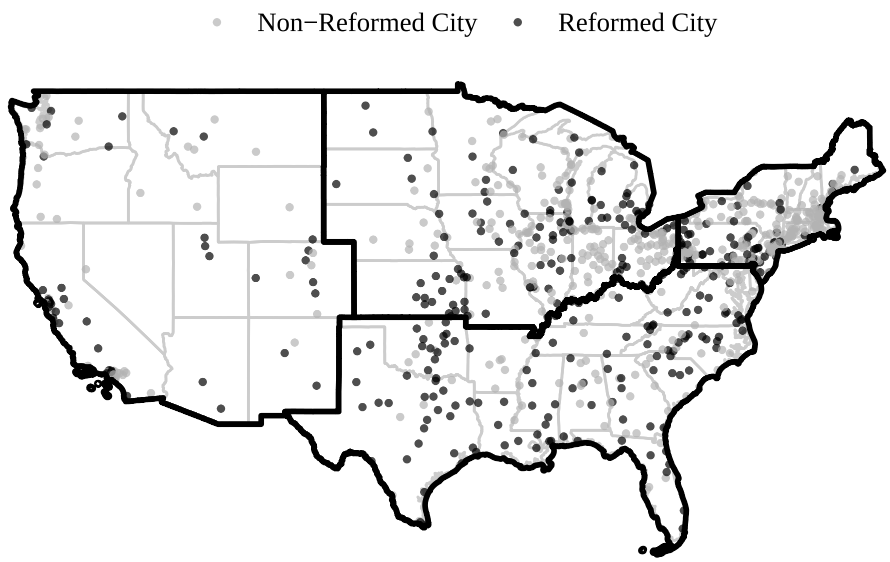
Figure 1: Number of Reforms by Year



Notes: the plot above shows the year of adoption for each of the 186 reformed cities in our sample of 455 cities in the U.S. between 1900 and 1940. Blue lines highlight census decades.

Figure 2 depicts the geographic distribution of cities that reformed at some point during the 40 year period and cities that never reformed. Non-reformed cities were particularly common in the Northeast and Midwest. Examples of reformed cities can be found in every state, although they are particularly common in the South and Southwest.

Figure 2: Geographic Distribution of Reformed Cities



Notes: the plot above shows the geographic distribution of cities that reformed (in black) and did not reform (in gray) during the period 1900-1940.

To study the effect of the adoption of reform-style government on political participation, we rely on data on voter turnout in both congressional and presidential elections from 1900 to 1940 available from Clubb, Flanigan, and Zingale (2006). Unfortunately, the smallest administrative unit at which data on voter turnout is available is the county. We thus map each city in our sample to a county, and assign to the city the turnout in the county where the city is located.

Finally, to study the effects of reform on public spending, we digitized information on city financial spending from the yearly Financial Statistics of Cities Bulletins provided by the U.S. Census Bureau between 1902 and 1940. Our efforts build on work by Trounstine (2018) and Janas (2022) who have also transcribed portions of these data. These reports were released by the Census Bureau yearly from 1902 to 1938 and contain detailed information on the revenues, expenditures, debts, and public service enterprises for all cities with a population above 30,000 (until 1931) and then for all cities with a population above 100,000 (from 1932 to 1938). Importantly, the data contain information not only on the aggregate amount of public expenditures, but also on the amount spent by the city for specific public services. Of the 455 cities in the sample that we used for our socioeconomic outcomes analyses, 136 appear in the Financial Statistics bulletins. For each available year, we digitized city expenditures on schools, fire and police services, sanitation, public health, highways, recreation, hospitals, as well as total municipal spending.

3.2 Variable Definition

To assess how different groups fared in reformed vs. non-reformed cities, we split the residents of each city along several dimensions. First, we divide residents between immigrants and natives: we define "immigrant" to include both foreign-born individuals and respondents whose parents were born outside the U.S.[3] Second, we divide residents between African American and non-immigrant white residents, relying on the *RACE* variable provided by IPUMS. Finally, we use census occupation codes to investigate whether Progressive reforms differentially affected business elites by dividing residents into those employed in business occupations and those employed in non-business professions. Specifically, we follow existing literature (Buchmann and McDaniel 2016: e.g.) and define "business" to include occupations classified under the Managers, Officials, and Proprietors category according to IPUMS.[4]

We use wage earnings as our primary measure of economic well-being of different groups. For each of these groups, we compute the variable *Predicted Log Earnings*, which reflects the predicted average wages earned by the members of the group. Specifically, while data on respondent occupation exist over the course of the panel, the census only began collecting information on wages starting in 1940. Following the procedure outlined in Abramitzky et al. (2021), we first predict wages in 1940 based on occupation, age, and region. We then impute

[3]For this classification, we rely on the variable *NATIVITY* provided by IPUMS.
[4]For specific details on the various IPUMS variables used in each of our analyses, see the Appendix.

wages in previous census years based on the same characteristics.[5] While this measure cannot capture changes in earnings over time within an occupation or city, it reflects the local value of each resident's occupation had they performed it in 1940. Finally, we average predicted wages at the city-decade-group level, and we take its logarithm.

To further explore the socioeconomic impact of reform, as well as to explore possible mechanisms behind the relationship between reform and wages, we look at five additional outcomes available in the Census data. First, we calculate the variable *Employment*, which is the share of each group that is employed. Second, we construct the variable *Local Government Job*, which is an indicator that takes a value of one if an individual holds a job in "local government" as defined by industry classification in the census. Third, we use the variable *Literacy* as a measure of cultural assimilation and human capital. It is an indicator that takes a value of one if a respondent could read and write. Fourth, we construct the variable *Group Population Share*, which is the share of each group among the residents of a city.

Finally, we calculate the variable *Occupational segregation*, which indicates the degree to which workers belonging to different groups are clustered in different occupations. We employ two standard approaches to measure segregation: a dissimilarity index and an isolation index, both widely used measures in the literature (Cutler, Glaeser, and Vigdor 1999; Iceland, Weinberg, and Steinmetz 2002; Gentzkow and Shapiro 2011). The two indices are defined in a given city-year as:

$$Dissimilarity = \frac{1}{2}\sum_{k\in K}\left|\frac{immigrants_k}{immigrants} - \frac{natives_k}{natives}\right| \tag{1}$$

$$Isolation = \sum_{k\in K}\frac{immigrants_k}{immigrants}\frac{immigrants_k}{immigrants} - \frac{natives_k}{natives} \tag{2}$$

[5]We make predictions using only cities that had not reformed by 1940 to avoid projecting any consequences of reform into the past.

where k is one of the K occupations present in that city-year. Both indices range between 0 (no segregation) and 1 (perfect segregation). The dissimilarity index can be interpreted as the share of minority residents (or majority) that would need to switch occupations for the minority share to be uniform across the labor market. The isolation index measures the extent to which minority residents are only exposed to one another in their occupations (White 1986; Cutler, Glaeser, and Vigdor 1999; Gentzkow and Shapiro 2011).

With the exception of our occupational segregation measures, which by construction can be computed only at the city-decade level, we compute all our measures both at the city-decade-group level—to study the impact of reform on specific demographic groups—and at the city-decade level, to study the aggregate impact of reform on the socioeconomic evolution of a city. Additionally, in order to directly measure the distributional impacts of reform, we also calculate the gap in each measure between the more advantaged groups—natives, whites, and members of the business elites—and the more disadvantaged ones—immigrants, African Americans, and non-business workers.

4 Empirical Approach

Our goal is to study the effect of the Progressive movement across U.S. cities at the turn of the 20th century. Our identification strategy exploits the staggered introduction of reform-style government across cities shown in Figure 1 to study the effect of progressive power on three sets of city-level outcomes: socioeconomic outcomes for different groups of residents, voter turnout, and public expenditures. Census outcomes are aggregated at the city-decade-group and are recorded every decade. Turnout is measured at the county level and is available every two years for congressional elections and every four years for presidential elections. Finally, city budget outcomes are measured at the city-year level directly and are measured every year for the subset of cities for which this information is available.

The standard difference-in-differences specification for our setting would be the following

$$y_{ct} = \gamma_c + \delta_t + \beta Reformed_{ct} + \varepsilon_{ct} \tag{3}$$

where y_{ct} is the outcome for city c and decade t. $Reformed_{ct}$ is an indicator variable that takes a value of 1 after city c reforms. City and decade fixed effects are represented by γ_c and δ_t respectively.[6] For census outcomes, we are most interested in whether city reforms affect more and less advantaged residents differently. For every outcome, we always show results for less advantaged residents (immigrants, black people, and non-business workers) and more advantaged residents (natives, whites, and business people) separately, and we then show the effect on the gap in that outcome between the two groups. Standard errors are clustered by city.

Standard difference-in-differences regressions, like in Equation 3, are biased when the treatment goes into effect at different times for different units if treatment effects change over time (e.g. Xu 2017; Goodman-Bacon 2021; De Chaisemartin and d'Haultfoeuille 2020). This is likely to be the case in our setting if reform affects the fortunes of various groups differentially over the course of our panel. To avoid this source of bias, we follow the stacked approach proposed by Cengiz et al. (2019) and compare reform cities only to cities that never reform ("clean control" cities). As they propose, we create as many copies of each never-reformed city as treatment periods in our data. For instance, when looking at census data which is available for each decade during 1900-1940, we create four copies of never-reformed cities, one for each decade highlighted in Figure 1 in which treated cities reformed (1900-1910, 1911-1920, 1921-1930, 1931-1940). We refer to each set of reform cities and their corresponding never-reformed cities as a "timing group." We then compare reform cities only to the never-reformed cities in the same timing group by estimating:

$$y_{cgt} = \gamma_{cg} + \delta_{tg} + \beta Reformed_{cgt} + \varepsilon_{cgt} \tag{4}$$

[6] Across all analyses, we limit our data to cities for which we have data in all relevant years. This means that the exact number of treated and control units varies across analyses.

where g identifies the timing group, δ_{tg} represents period-by-timing group fixed effects, and γ_{cg} represents city-by-timing group fixed effects.[7] Standard errors are clustered at the city level. We can interpret β as the effect of reform under the assumption that reform and non-reform cities would have been on the same average trajectory had neither reformed.

Of course, the timing of reform is not random: cities may choose to adopt a city manager (or commission) in response to changing socioeconomic conditions. For example, the reform movement gained strength in the west at the same time as many people were moving to the region. To address this issue, we re-weight our data to ensure that the never-reformed cities match the average outcome for the reform cities in their timing group before reform (Imai, Kim, and Wang 2018). This approach is similar to the strategy proposed in Hazlett and Xu (2018). Specifically, we use entropy balancing to find weights that minimize the difference between the average reform and never-reform cities on all pre-reform observations of the outcome while maintaining weights as close to 1 for all control units (Hainmueller 2012). This method is well-suited to cases with many treated units and few pre-treatment periods, which is not the case with standard synthetic control methods for panel data.

To investigate pre-trends and the dynamic evolution of the treatment effect, we also estimate a non-parametric event-study specification:

$$y_{cgt} = \gamma_{cg} + \delta_{tg} + \sum_{\tau=-3}^{+3} \beta_\tau Reformed_{cg} \times \mathbb{1}[t = \tau] + \varepsilon_{cgt} \tag{5}$$

where the coefficients of interest, β_τs, measure the change in outcomes of treated cities τ decades before or after treatment, relative to the decade preceding the introduction of reform in each city and compared to the change in outcomes of pure control cities.

[7] Note that city-by-timing group fixed effects are effectively city fixed effects in our analysis using census data. While our analysis using political and fiscal outcomes leverages more granular time variation, in our census analysis each pure control city enters each timing group for the same number of decades (all the decades in the 1900 to 1940 period).

5 Reforms Had Minimal Socioeconomic Impact

In this section, we begin by presenting our results on socioeconomic gaps between more vs. less advantaged groups of city residents. Table 1 reports estimates from equation 4, which measures the impact of the reform on the evolution of earnings for different groups of residents. Columns 1-3 focus on immigrants versus natives, columns 4-5 focus on blacks versus whites, while columns 7-9 focus on residents in non-business versus business occupations. Overall, we find that the reform had at most modest distributional effects. The reform led to a 1 percent reduction in earnings for immigrant residents (p-value 0.095), while it had a negligible impact for natives, resulting in an insignificant 0.007 increase in the native-immigrant earnings gap (i.e. the difference in log earnings between natives and immigrants).

Table 1: The Impact of Reform on Earnings Across Groups

	Predicted Log Earnings								
	Immigrant (1)	Native (2)	Gap (3)	Black (4)	White (5)	Gap (6)	Non-Business (7)	Business (8)	Gap (9)
Reform	-0.010	-0.002	0.007	-0.015	0.002	0.017	-0.007	0.006	0.013
	(0.006)	(0.004)	(0.006)	(0.008)	(0.005)	(0.008)	(0.004)	(0.002)	(0.004)
Num Obs	6,305	6,305	6,305	4,845	4,845	4,845	6,310	6,310	6,310
Num Cities	454	454	454	366	366	366	455	455	455
Outcome Mean	1181.529	1219.991	1.042	785.284	1216.965	1.576	1015.153	1707.21	1.704
Outcome Stdv	156.596	137.448	.116	140.737	143.177	.195	149.996	166.856	.197
City FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year $\times$ Timing Group FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Balancing Weights	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

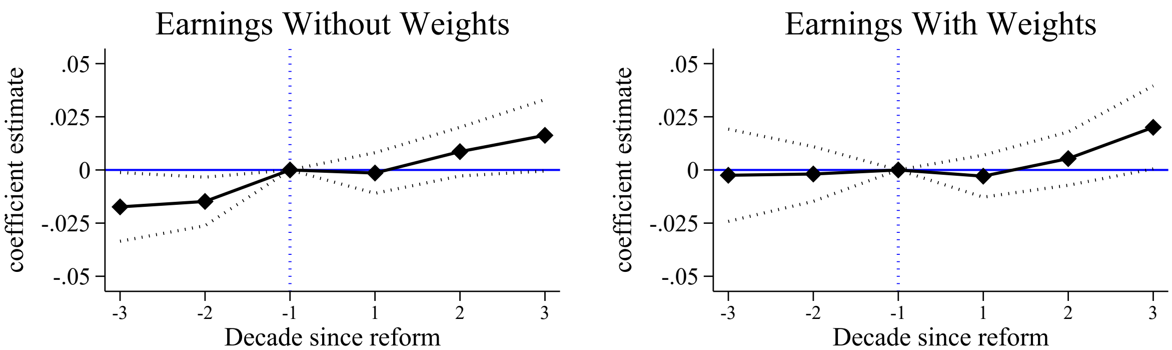
Notes: *Gap* is defined as the difference between the more and less privileged group (e.g. native - immigrant, white - black, and business - non-business). Regressions estimated using all men age 19 to 50 living in cities from 1900 to 1940. Heteroskedasticity-robust standard errors clustered by city reported in parentheses. The mean and standard deviation of the weighted unlogged dependent variable are shown in the table.

Importantly, we can show that a failure to account for the possible endogenous timing in the adoption of the reform would result in significantly inflated estimates. A regression that does not employ entropy balancing weights results in an estimated effect on the earnings gap that is twice as large (estimate of 0.014, p-value 0.005). Indeed, as we show in Figure 3, Panel A, cities that reformed were already experiencing an increase in the immigrant-native earnings gap, relative to unreformed cities, in the decades leading up to the reform. When we apply our weighting procedure, which ensures that reform and never-reformed cities are on similar trends before the reform, we estimate a significantly smaller effect of the reform (see Panel B of Figure 3).

The remaining columns of Table 1 provide some evidence that the reform increased the earnings gap between more and less advantaged residents, but the economic magnitude of these effects is modest. The white-black earnings gap increased by 0.017 following the reform, with the effect mainly resulting from a 1.5 percent drop in earnings among black residents. The earnings gap between residents in business versus non-business occupations increased by 0.013, as a result of a 0.7 percent decrease in earnings for non-business residents and a 0.6 percent increase for business residents. Appendix Figure A.1 presents event-study estimates from equation 5 and shows evidence of immediate increases in the gaps in the first decade after the adoption of the new form of government. To put these effects in perspective, the average gap in log earnings between white and black in unreformed cities over the sample period is 0.414, and the one between business and non-business residents is 0.506; thus, the reform increased the gaps by 4.1 and by 2.6 percent, respectively, relative to the average unreformed city.

It is worth noting that our procedure to impute predicted earnings affects the interpretation of the estimates of the gap between business and non-business residents. Since we rely on information on an individual's occupation, age, and region to predict their earnings, an important driver of a group's average earnings is the extent to which members of a group move across occupations. Since our analysis in columns 7-9 compares the earnings of two groups defined on the basis of occupational categories, the changes in the average earnings of business (non-business) residents in a city across decades will be mostly driven by shifts of residents between low and high paying business (non-business) occupations. In other words, the treatment effects in columns 7-9 abstract from possible movements of individuals from business to non-business occupations, or vice versa. Importantly, as we show below, we do not observe any effect of the reform on the share of the population employed in business

Figure 3: Event Study Estimates for the Native-Immigrant Earnings Gap



Notes: Shows coefficient estimates from the model described in equation 5 for the gap in earnings between native born and immigrants residents. The figure on the left uses raw data, and the figure on the right employs balancing weights as described in Hainmueller (2012). Dotted line shows the 95 percent confidence intervals.

occupations, suggesting that the reform was not accompanied by significant changes in the composition of these groups.

In line with the small earnings effects uncovered in Table 1, we find small and mostly statistically insignificant effects on other measures of socioeconomic standing. Figure 4 reports the coefficients and 95 percent confidence intervals from estimating equation 4 for all our additional socioeconomic variables (where coefficients are expressed in standard deviation units of their respective dependent variable). For each outcome, we estimate the impact of the reform on the gap between more and less advantaged groups of residents.

If the adoption of reform-style government made it more difficult for machines to offer employment opportunities to disadvantaged residents, we would expect the effect of the reform on their probability of employment in general, and on their probability of having a public job more specifically, to be negative. As Trounstine (2006) observes, public sector jobs in the early 20th century often paid better wages than private employment. If instead less advantaged residents in cities that reformed were not particularly reliant on patronage for employment, or if reforms did not significantly reduce their likelihood of employment, we would observe no effect of the form of government on labor force participation. In line with this second possibility, we find no evidence that the reform widened employment gaps or gaps in the probability of holding a local government job. In addition, we find that the literacy gaps between groups were not affected by the adoption of reform.

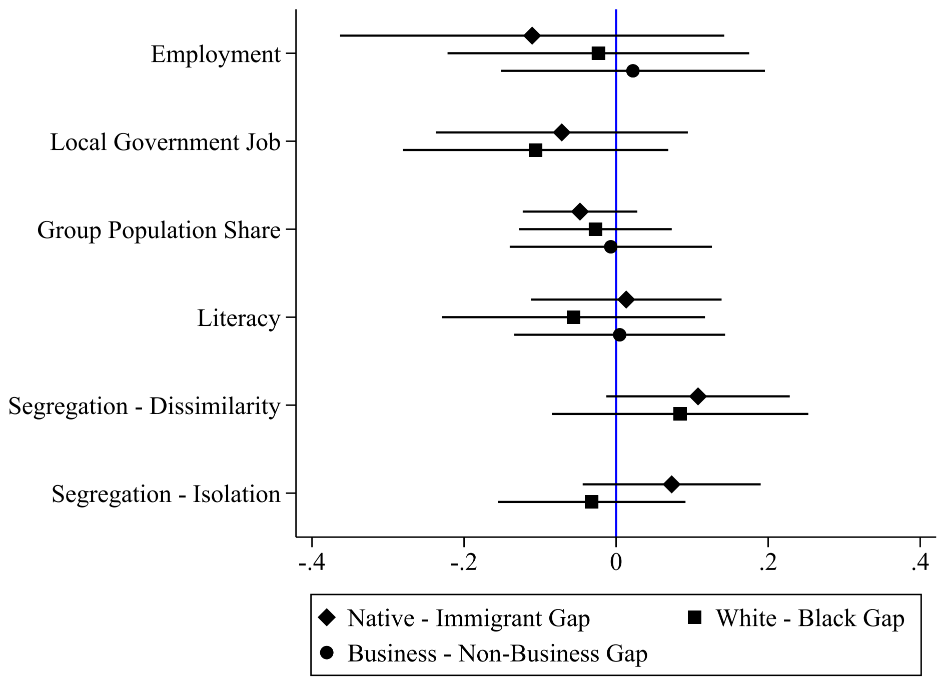
We use our segregation measures to investigate whether cities that reformed had higher degrees of occupational segregation. Importantly, such clustering is not necessarily a negative thing for minorities. For instance, co-ethnic niches can capitalize on particular skill sets and human capital attributes to provide employment opportunities to members of the same communities (Waldinger and Bozorgmehr 1996). At the same time, existing empirical work finds little evidence that such occupational segregation benefits minorities in terms of their earnings and educational attainment (Wilson 1999; Model 2018). We do find some evidence that cities that reformed had higher degrees of occupational segregation, although the estimates are imprecise.[8]

Finally, we look at the overall share of each group in the population. We do this for two reasons. First, worsening economic conditions for a particular demographic group in the decades following the reform could lead to a decrease in that group's population share through a combination of increased mortality rates, lower birth rates, and negative net migration rates. Second, we can use this variable to investigate whether any changes to earnings are driven by changes in the relative size of the groups under study. If, for example, the reforms in a particular city led to a reduction in the white population, we might expect higher wages for this group because of lower competition for similar jobs. In line with the small to null distributional effects we uncover, we do not find significant changes in the shares of the city population belonging to any of the groups we study.

Despite the small distributional effects, the adoption of reform-style government may have had aggregate welfare effects, leading to differential economic growth relative to unreformed

[8]Note that our occupational segregation measure is constructed at the city level directly, and it is equal to 1 by definition when the groups we look at are residents in business and non-business occupations, which is why we omit this comparison from Figure 4. See the previous section for details.

Figure 4: The Impact of Reform on Other Socioeconomic Outcomes



Notes: Shows coefficient estimates and 95 percent confidence intervals from the model described in equation 4. See section 3.2 for a description of the dependent variables shown on the y axis. Results in table format are presented in Tables A.3, A.4, A.5.

cities. While the absence of significant treatment effects for most of the outcomes and groups in Table 1 and Figure 4 already suggests this is not the case, we can provide direct evidence on the absence of significant aggregate welfare effects by re-estimating equation 4 on a sample at the city-census decade level. Table 2 shows that the adoption of reform-style government was not associated with differential changes to overall earnings, city population, or employment trajectories in the decades following the reform. Similarly, the share of employment in local government jobs and literacy rates did not change after the reform.

Overall, our empirical analysis paints a picture that is inconsistent with large distributional or aggregate effects of the Progressive agenda. Our estimates show that, on average, the relative socioeconomic standing of less advantaged groups was either unaffected (for the case of immigrants) or only moderately worsened (for the case of African Americans and non-business residents) in the decades following the reform.

Table 2: The Impact of Reform on Aggregate Outcomes

	Log Predicted Earnings (1)	Log Total Population (2)	Employment (3)	Local Government Job (4)	Literacy (5)
Reform	-0.007	-0.007	-0.000	0.000	-0.001
	(0.004)	(0.046)	(0.006)	(0.000)	(0.003)
Num Obs	6,310	6,310	2,112	6,310	5,048
Num Cities	455	455	435	455	455
Outcome Mean	1154.498	23.349	0.801	0.011	0.952
Outcome Stdv	142.017	89.981	.074	.008	.043
City FEs	Yes	Yes	Yes	Yes	Yes
Year × Timing Group FEs	Yes	Yes	Yes	Yes	Yes
Balancing Weights	Yes	Yes	Yes	Yes	Yes

Notes: Shows estimates of the aggregate effect of the reform. Heteroskedasticity-robust standard errors clustered by city reported in parentheses. The mean and standard deviation of the weighted dependent variable are shown in the table.

6 Reform-style Government as a Proxy of Progressive Power

So far, we have interpreted the adoption of reform-style government as a proxy for Progressives gaining power. The historiographical literature strongly suggests that adopting this new form of government was often bundled with other progressive reforms, including nonpartisan ballots and at-large elections. While this means we can't isolate the effects of council-manager or commission form of government from these other reforms, our argument is precisely that the switch in form of government proxies for Progressive power broadly. However, a different concern is that perhaps the switch in form of government does not effectively represent a moment when Progressives took control of city government, and perhaps by not observing the adoption of other reforms we are underestimating our main effects. In other words, if these other reforms (i) were not adopted in the same decade as the council-manager or city-commission form of government, and (ii) had stronger economic impacts than the switch in form of government , this might explain the largely null results we uncover. We address this concern drawing from both quantitative and qualitative evidence.

First, while the precise date of adoption is only available for changes in the form of government, we leverage information in the Municipal Yearbook of 1940 documenting which cities had non-partisan ballots by that year. We use this information to present three pieces of empirical evidence. First, we document that 76% of cities that adopted council-manager or commission form of government in our sample also had introduced non-partisan elections by 1940. Second, in appendix Table A.6 we demonstrate that our results are robust to excluding from the sample control cities that had non-partisan ballots in 1940. Third, in appendix Table A.7, we show that there are no heterogeneous effects when we zoom in on cities that had also adopted non-partisan ballots by 1940. Taken together, theses additional analyses lend support to the idea that reform-style government is an effective proxy for overall Progressive power.

Second, we collect qualitative evidence from a representative random subset of cities in our sample to show that reform-style government was introduced as one of the first acts of new progressive city governments and was typically accompanied by other progressive era reforms such as non-partisan ballots. We carried out case studies for thirty treated cities in our sample, *i.e.* cities where a reform style government or city commission was introduced during 1900-1940.[9] We used different sources, including digitized newspaper archives, city charters, and historical scholarship on the topic. For each city, we searched for information on i) the electoral dynamics surrounding the adoption of reform style government, ii) information about the mayors serving before and after the reform (especially partisanship, previous job, and role in reform movement), and iii) if and when non-partisan ballots and at-large elections were introduced.

We found strong support for city-manager/commission form of government being a valid proxy of Progressive power in city government. City charters were amended to introduce city manager or city commission form of government shortly after the election of a new reform minded city government in the vast majority of cases analyzed. Moreover, the reform we

[9]We focused on the thirty largest treated cities in our sample by population in 1900.

study was typically accompanied by other reforms introduced at the same time or in the same decade. Out of thirty cities, we identified only four “counter examples,’’ i.e. cities where either non-partisan ballots or at-large elections were introduced in a different year with respect to the council-manager or commission form of government, or where progressive governments had been in power before the introduction of the reform we study.

For example, Dayton, Ohio, was one of the first cities to reform its form of government and it concurrently introduced at-large elections and non-partisan ballots. Dayton adopted these policies under the pressure of John Patterson, an influential businessman and the largest employer in Dayton in the early 1900s, who took charge of relief efforts after a flood in 1913 killed many citizens and caused large destruction. Dayton introduced a new form of government featuring five commissioners elected in nonpartisan, citywide elections who appointed a city manager (The Boston Globe 1914; Dayton Daily News 1914; Sealander 2014). Patterson sponsored the idea that Dayton should be governed “not by partisans [...] but by men who are skilled in business management and social science; who would treat our money as a trust fund, to be expended wisely and economically, without waste, and for the benefit of all citizens” (Weinstein 1962).

In Rochester, New York, the Council-Manager form of government was introduced in 1928 when voters approved an amendment to the city charter, after a long campaign that saw the active involvement of the City Manager League (Story 1926). The amendment also introduced non-partisan ballots. As stated by the vice mayor Isaac Adler to a local newspaper, the Rochester Democrat and Chronicle, in the municipal elections of 1928, “the principal election change made by the new Charter is the provision for a non-partisan ballot without emblems of any kind, designed to do away with party voting in municipal elections” (Democrat and Chronicle 1926). Interestingly, the vice mayor also points out that the charter resulting from the amendment was “nearly identical to the model charter” and, importantly for us, similar to several other new charters in New York state introducing the council-manager form of government as well as non-partisan elections. (Democrat and Chronicle 1926).

We present further case studies confirming our claims in Appendix section A.3, including evidence from Portland (OR), Bethlehem (PA), and San Jose (CA). One of the few cases we found that constitutes a partial counterexample was Toledo, Ohio, where two mayors who were considered progressive politicians took office long before the introduction of the Council-Manager form of government in 1936. Samuel M. Jones, whose term lasted from 1897 until his death in 1904, is the most famous mayor of Toledo (OH) and was voted in a 1993 survey as the fifth-best among all mayors who ever held office in the United States. Jones made history by campaigning for municipal ownership of the utilities, public ownership of national trusts, fair pay for labor, and for striving to improve conditions for the working class in Toledo (Holli 1999). Later, the progressive journalist and member of the Democratic party Brand Whitlock, after being elected mayor in 1906, continued Jones' reform efforts (Crunden 1969). However, these mayors did not introduce any of the political reforms at the center of our study, and their tenure took place more than 30 years before the city adopted council-manager government.

Finally, Voters in East St. Louis, Illinois, elected a progressive mayoral candidate in 1913 who promoted suppression of prostitution, gambling and illegal saloons. The Council-Manager form of government was voted via ballot initiative four years later, in November 1917 (Lumpkins 2006). It is worth noting that this case does not affect our empirical analysis. Because census data are available every ten years, the unit of observation is a city-decade, and both the progressive governments described above fall in the same decade.

7 Political Participation Decreased in Reformed Cities

We next examine how the adoption of reform-style government affected political participation. Here, the theoretical predictions are more clear-cut, and existing empirical work tends to support the idea that the reforms of the Progressive era reduced democratic participation, consistent with them being designed in part to weaken popular participation in machine politics at the city-level (Banfield and Wilson 1966; Buenker 1973). Table 3 reports results from equation 4, estimated on a panel that includes all presidential and congressional elections from 1900 to 1940. While the treatment remains at the city-level, turnout data are not available below the level of the county. The dependent variable is thus turnout in the county where the city is located in each two or four year cycle (for congressional and presidential elections, respectively). Odd columns present unweighted coefficient estimates, while even columns present coefficient estimates from our preferred specification employing entropy balancing weights as described in section 4.[10] Standard errors are clustered at the city level and Appendix Tables A.8 shows robustness to clustering standard errors at the county level. Figure 5 presents event-study estimates from equation 5.

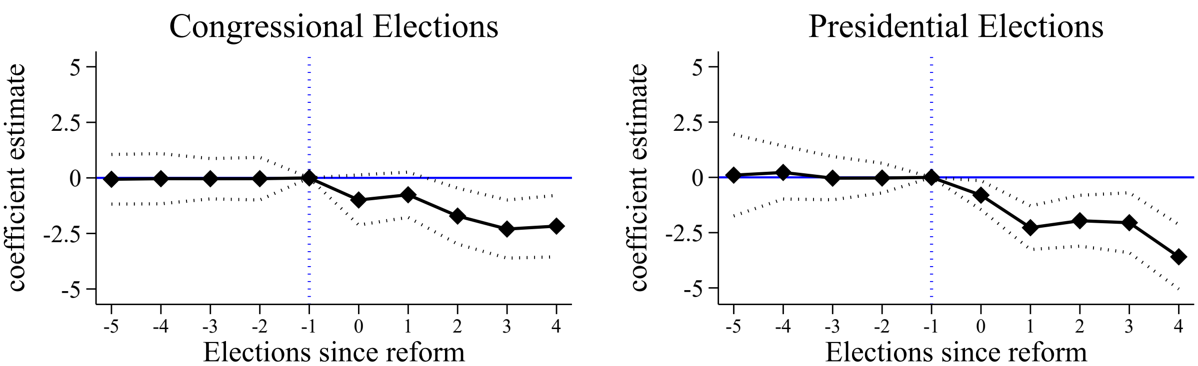
Table 3: The Impact of Reform on Voter Turnout

	Turnout Congressional Elections		Turnout Presidential Elections	
	(1)	(2)	(3)	(4)
Reform	-3.366	-2.045	-3.313	-2.242
	(0.584)	(0.588)	(0.595)	(0.635)
Num Obs	425,586	383,754	137,929	137,929
Num Cities	1342	1342	1649	1649
Outcome Mean	53.364	48.780	60.642	55.449
Outcome Stdv	17.617	18.932	18.356	20.409
City × Timing Group FEs	Yes	Yes	Yes	Yes
Year × Timing Group FEs	Yes	Yes	Yes	Yes
Balancing Weights	No	Yes	No	Yes

Notes: Shows estimates of the effect of the reform on voter turnout. The dependent variable is turnout in the county where each city is located in each two year period (for Congressional elections) or four year period (for Presidential elections). Heteroskedasticity-robust standard errors clustered by city reported in parentheses. The mean and standard deviation of the unweighted dependent variable are shown in column (1) and column (3) of the table. The mean and standard deviation of the weighted dependent variable are shown in column (2) and column (4) of the table.

[10] Election results are available for a larger number of cities than the 455 included in the balanced sample of cities in our main analysis using census data and shown in Table 1. For consistency, Appendix Table A.9 shows robustness to restricting the electoral analysis to the sample of 455 cities present in census data and Figure A.6 presents the corresponding event-study estimates. Note that 2 cities cannot be included because election results are available for one year only.

Figure 5: Event Study Estimates for Voter Turnout



Notes: Shows coefficient estimates from the model described in equation 5 for congressional and presidential turnout with balancing weights. Dotted line shows the 95 percent confidence intervals.

We find large negative effects for both congressional and presidential elections. When a city reforms, turnout in that city's county decreases by 2.045 percentage points in congressional elections and 2.242 percentage points in presidential elections. The event study estimates show that the drop in electoral participation is already visible in the first election post-reform, and it becomes larger over time.

As described in section 3.1, since electoral data are only available at the county level, we assign to each city the turnout in the county where the city is located. This procedure assigns the same turnout values to cities located in the same county. In our sample, 62% of city-year observations belong to a county shared with at least another city in our sample. In Appendix Table A.10 and Figure A.7, we show robustness to restricting our sample to cities that do not share the county with any other city in the sample. Despite the substantial reduction in sample size, which shrinks to approximately one third of the full sample, results are qualitatively similar.

Our results are in line with Fox (2012), which suggests that turnout decreased more quickly in the south and southwest than in the reform resistant north in the early 20th century. Today, turnout remains 6 to 8 percentage points higher in mayor-council cities compared to council-manager cities in California, according to estimates by Hajnal and Lewis (2003). It is worth noting that coefficients from the specification not accounting for endogenous timing of reform, in columns 1 and 3 of Table 3, are 65% and 48% larger than coefficients in columns 2 and 4 for Congressional and Presidential elections respectively. Our results provide some of the first historical evidence at the local level and using a before-and-after design that reform-style government decreased turnout—a widely assumed consequence of Progressive institutions (Martin 1933; Banfield and Wilson 1966; Judd and Hinze 2018). Moreover, by showing that the reform led to a significant shock to electoral participation, we can provide direct evidence that the mostly insignificant socio-economic effects that we uncovered in the previous section are not simply the result of a weakly specified treatment. The adoption of reform-style government mattered for the residents of American cities, but the consequences were more pronounced in the political rather than the economic sphere.

8 No Change in Public Expenditures After Reform

Finally, we examine whether and how the adoption of reform-style government influenced the allocation of spending on public goods. The theoretical predictions here are mixed. On the one hand, qualitative work suggests that the middle and upper-class supporters of the Progressive movement favored investment in amenities like parks, libraries, museums, and infrastructure improvements that would benefit downtown business districts (e.g. Hays 1964). But reformers also sought to expand access to education and social services (e.g. Buenker 1973). And while municipal reformers also claimed that their efforts would make city government more cost-effective and efficient (Schiesl 1977), existing empirical work shows that overall spending is no lower in council-manager cities (Lineberry and Fowler 1967; Ruhil 2003) and in fact is sometimes even higher (Coate and Knight 2011).

Here, we examine how spending across several key categories evolved in reformed vs. non-reformed cities.[11] Following Trounstine (2018) and Janas (2022), we draw from the Financial Statistics of Cities bulletins. Out of the 455 cities in our socioeconomic outcomes analysis, 136 cities also appear in the bulletins. For these cities, we digitized yearly information on aggregate municipal public spending, as well as on the amount spent on eight categories of services: schools, fire, police, sanitation, public health, highways, recreation, and hospitals. This newly collected data allow us to paint a comprehensive portrait of how municipal budgets were affected by the adoption of Progressive reforms.

Interestingly, we find few differences in the evolution of public goods spending between cities that reformed and those that did not. Table 4 shows the results. In Column 1, we find a modest and statistically insignificant increase in total spending of around 2% among cities that reformed. The upper bound of the 95% confidence interval is 5.8%. These results point in the same direction but are substantively smaller than Coate and Knight (2011), who find that per capita spending increased by just under 8% when cities switched to council-manager government in the 1980s and 1990s. Although reformers of the Progressive Era frequently claimed that their proposals would cut costs and improve services (Bruere 1913; Taylor 1919), reformed cities did not actually reduce their overall expenditures in the early 20th century.

Despite the fact that reform coalitions were widely perceived as supporting public goods like parks and libraries in the more affluent parts of their community, we uncover only a noisy (but positive) effect of the reform on spending on recreation. In general, across individual policy categories, we do not observe consistent patterns in the expenditure priorities of city governments after they reform. Spending did increase modestly on education—the largest expenditure category—but the estimates are not statistically distinguishable from zero.

[11] Given the higher frequency of city budget data with respect to census and elections data (yearly *vs.* decennial and quadrennial/biennial respectively), and in order to be consistent with the weighting strategy used in the previous analysis and described in 4, we here use entropy balancing to find weights that minimize the difference between the average reform and never-reform cities only in the last three pre-reform years.

Table 4: The Impact of Reform on Public Expenditures

	Total (1)	School (2)	Police (3)	Highways (4)	Hospitals (5)	Fire (6)	Sanitation (7)	Recreation (8)	Health (9)
Reform	0.022	0.030	-0.010	0.013	-0.055	-0.000	0.026	0.055	-0.085
	(0.018)	(0.018)	(0.024)	(0.034)	(0.142)	(0.022)	(0.032)	(0.064)	(0.046)
Num Obs	5,106	8,435	8,268	8,436	5,437	8,268	8,268	7,930	8,268
Num Cities	121	136	136	136	122	136	136	135	136
Outcome Mean	5955.3	2000.9	534.2	475.7	572.7	409.3	383.4	160.7	125.6
Outcome Stdv	25459.6	9897.4	2877.6	1467.3	2705.4	1532.9	2108.6	651.9	512
City × Timing Group FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Timing Group FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Balancing Weights	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Dependent variables are the natural log of spending in each budget category measured in thousands of dollars. The mean and standard deviation of the unlogged weighted dependent variable are shown in the table. Heteroskedasticity-robust standard errors clustered by city reported in parentheses.

The null results in this section offer some suggestive evidence as to why we fail to detect meaningful increases in the socioeconomic gaps between different groups of more and less advantaged residents in reformed cities. While the historical literature gives us reason to believe that the municipal Progressive agenda may have disproportionately catered to white and middle-class business elites, the actions of city leaders may not have translated into observable increases in inequality if spending on public goods remained fairly constant. Of course, we cannot observe how funding was allocated at the sub-city level, and case study evidence suggests that reform governments tended to neglect poorer neighborhoods (e.g. Judd and Hinze 2018; Beach et al. 2018). But the aggregate differences in the policy priorities and overall spending of reformed vs. non-reformed governments appear to be quite small overall.

9 Discussion

According to Judd and Hinze (2018), "The municipal reforms of the early twentieth century were designed to undercut the electoral influence of working-class and immigrant voters" (77). What is less clear is whether these reforms reduced the economic power of these groups as well. In this paper, we study whether the adoption of reform-style government affected a variety of socioeconomic outcomes for immigrants, African Americans, and the working class compared to native-born, white, and business elites. Using de-anonymized census data to construct estimates of the wage earnings of city residents, we find that the earnings gap increased only marginally in reformed relative to non-reformed cities. We also find some modest evidence that occupational segregation increased, particularly for immigrants. Crucially, a naive difference-in-difference approach would have uncovered a much larger effect of reform on earnings inequality. After accounting for the non-random adoption of reform institutions with trajectory balancing, we find that much of the difference in earnings gaps can be explained by existing disparities in the wage dynamics of cities that reformed vs. those that did not.

To show that these minimal effects are not simply the result of a weakly specified treatment, we use the same empirical setup to show that voter turnout did decrease in counties where more cities reformed. These results remain consistent even after employing trajectory balancing and are in line with existing literature suggesting that the reforms of the Progressive era reduced political participation. While we cannot state with certainty whether this reduction in turnout disproportionately impacted working class and racial and ethnic minorities, one consistent explanation for this result is the fact that Progressive reformers tended to implement stricter voter registration and literacy requirements once they gained power.

Finally, we find no meaningful differences in public goods expenditures across reform and non-reformed cities. While existing literature offers mixed theoretical predictions for these analyses, we include these results to paint the most complete picture possible about how municipal government evolved in cities before and after the adoption of Progressive institutions. We hope that these newly digitized data from the Financial Statistics of Cities Bulletins will be a resource for other scholars of historical political economy.

References

Abramitzky, Ran, Leah Boustan, Elisa Jácome, and Santiago Pérez. 2021. "Intergenerational mobility of immigrants in the United States over two centuries." *American Economic Review* 111(2): 580–608.

Anzia, Sarah F., and Jessica Trounstine. 2022. "The Political Influence of City Employees: Civil Service Adoption in America." Goldman School of Public Policy Working Paper. `https://gspp.berkeley.edu/research-and-impact/working-papers/the-political-influence-of-city-employees-civil-service-adoption-in-america`.

Banfield, Edward C, and James Q Wilson. 1966. *City politics.* Vol. 335 Vintage Books.

Beach, Brian, Daniel B Jones, Tate Twinam, and Randall Walsh. 2018. "Minority representation in local government." National Bureau of Economic Research.

Bernard, Richard M, and Bradley R Rice. 1975. "Political environment and the adoption of progressive municipal reform." *Journal of Urban History* 1(2): 149–174.

Bremner, Robert. 1956. "From the Depths: The Discovery of Poverty in America." *New York: New York University* .

Bridges, Amy. 1999. *Morning glories: Municipal reform in the Southwest.* Vol. 60 Princeton University Press.

Bridges, Amy, and Richard Kronick. 1999. "Writing the rules to win the game: The middle-class regimes of municipal reformers." *Urban Affairs Review* 34(5): 691–706.

Bruere, Henry. 1913. *The New City Government: A Discussion of Municipal Administration Based on a Survey of Ten Commission Governed Cities.* D. Appleton.

Buchmann, Claudia, and Anne McDaniel. 2016. "Motherhood and the wages of women in professional occupations." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 2(4): 128–150.

Buenker, John D. 1973. *Urban liberalism and progressive reform.* New York: Scribner.

Bureau of Municipal Research. 1913. "Organization and Business Methods of The City Government of Portland, Oregon." `https://web.pdx.edu/~stipakb/download/PerfMeasures/Portland1913BMRreport.pdf`.

Burnham, Robert A. 1997. "Reform, politics, and race in Cincinnati: Proportional representation and the City Charter Committee, 1924-1959." *Journal of Urban History* 23(2): 131–163.

Caren, Neal. 2007. "Big city, big turnout? Electoral participation in American cities." *Journal of Urban Affairs* 29(1): 31–46.

Cassel, Carol A. 1986. "The nonpartisan ballot in the United States." *Electoral Laws and Their Political Consequences* 226: 227–28.

Cengiz, Doruk, Arindrajit Dube, Attila Lindner, and Ben Zipperer. 2019. "The effect of minimum wages on low-wage jobs." *The Quarterly Journal of Economics* 134(3): 1405–1454.

Chambers, John Whiteclay. 2000. *The Tyranny of Change: America in the Progressive Era, 1890-1920.* Rutgers University Press.

Clubb, Jerome M., William H. Flanigan, and Nancy H. Zingale. 2006. "Electoral Data for Counties in the United States: Presidential and Congressional Races, 1840-1972." *Inter-university Consoritum for Political Science Research* `https://doi.org/10.3886/ICPSR08611.v1`.

Coate, Stephen, and Brian Knight. 2011. "Government form and public spending: Theory and evidence from US municipalities." *American Economic Journal: Economic Policy* 3(3): 82–112.

Crunden, Robert M. 1969. *A Hero in Spite of Himself: Brand Whitlock in Art, Politics, and War.* Knopf.

Cutler, David M, Edward L Glaeser, and Jacob L Vigdor. 1999. "The rise and decline of the American ghetto." *Journal of political economy* 107(3): 455–506.

Davidson, Chandler, and George Korbel. 1981. "At-large elections and minority-group representation: A re-examination of historical and contemporary evidence." *The Journal of Politics* 43(4): 982–1005.

Davis, Allen Freeman. 1984. *Spearheads for reform: The social settlements and the progressive movement, 1890-1914.* Rutgers University Press.

Dayton Daily News. 1914. "The Man About Town." February 23, `https://www.newspapers.com/image/397776720`.

De Chaisemartin, Clément, and Xavier d'Haultfoeuille. 2020. "Two-way fixed effects estimators with heterogeneous treatment effects." *American Economic Review* 110(9): 2964–96.

Democrat and Chronicle. 1926. "Non-partisan ballot used in other cities, declares Alder in answering Dwyer." Rochester, New York. November 7, `https://www.newspapers.com/image/135294927`.

Detroit Bureau of Governmental Research. 1931. "The Form of Government in 288 American Cities." *Report No. 121.* .

DiGaetano, Alan. 1988. "The rise and development of urban political machines: An alternative to Merton's functional analysis." *Urban Affairs Quarterly* 24(2): 242–267.

Erie, Steven P. 1990. *Rainbow's end.* University of California Press.

Faulkner, Harold Underwood. 1937. *The Quest for Social Justice, 1898-1914.* Vol. 11 Macmillan.

Fox, Cybelle. 2012. *Three worlds of relief.* Princeton University Press.

Gans, Herbert J et al. 1982. *Urban villagers.* Simon and Schuster.

Gentzkow, Matthew, and Jesse M Shapiro. 2011. "Ideological segregation online and offline." *The Quarterly Journal of Economics* 126(4): 1799–1839.

Glaab, Charles Nelson, and A Theodore Brown. 1967. "A History of Urban America.".

Goodman-Bacon, Andrew. 2021. "Difference-in-differences with variation in treatment timing." *Journal of Econometrics* .

Griffith, Ernest S. 1927. *The modern development of city government in the United Kingdom and the United States.* Vol. 2 Oxford University Press, H. Milford.

Hainmueller, Jens. 2012. "Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies." *Political analysis* 20(1): 25–46.

Hajnal, Zoltan L, and Paul G Lewis. 2003. "Municipal institutions and voter turnout in local elections." *Urban Affairs Review* 38(5): 645–668.

Hays, Samuel P. 1964. "The politics of reform in municipal government in the progressive era." *The Pacific Northwest Quarterly* 55(4): 157–169.

Hazlett, Chad, and Yiqing Xu. 2018. "Trajectory Balancing: A general Reweighting Approach to Causal Inference with Time-Series Cross-Sectional Data." Working Paper. `https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3214231`.

Holli, Melvin G. 1969. *Reform in Detroit: Hazen S. Pingree and urban politics.* Vol. 4 Oxford University Press.

Holli, Melvin G. 1999. *The American Mayor: The Best & The Worst Big-City Leaders.* Penn State Press.

Iceland, John, Daniel H Weinberg, and Erika Steinmetz. 2002. *Racial and ethnic residential segregation in the United States 1980-2000.* Vol. 8 (3) Bureau of Census.

Imai, Kosuke, In Song Kim, and Erik Wang. 2018. "Matching methods for causal inference with time-series cross-section data." Working Paper. `https://imai.fas.harvard.edu/research/tscs.html`.

Jackson, Kenneth T. 1987. *Crabgrass frontier: The suburbanization of the United States.* Oxford University Press.

Janas, Pawel. 2022. "Public Goods Under Financial Distress: Evidence from Cities in the Great Depression." Working paper.

Johnston, Robert D. 2003. *The Radical Middle Class: Populist Democracy and the Question of Capitalism in Progressive Era Portland, Oregon.* Princeton University Press.

Judd, Dennis R, and Annika M Hinze. 2018. *City politics: The political economy of urban America.* Routledge.

Karnig, Albert K, and B Oliver Walter. 1983. "Decline in municipal voter turnout: A function of changing structure." *American Politics Quarterly* 11(4): 491–505.

Kirschner, Don S. 1975. "The Ambiguous Legacy: Social Justice and Social Control in the Progressive Era." *Historical Reflections/Réflexions Historiques* pp. 69–88.

Kuipers, Nicholas, and Alexander Sahn. 2022. "The Representational Consequences of Municipal Civil Service Reform." *American Political Science Review* pp. 1–17.

Lane, Robert Edwards. 1962. *Political ideology: Why the American common man believes what he does.* Free Press of Glencoe.

Lansing, Jewel. 2005. *Portland: People, Politics, and Power.* Corvallis, Oregon: Oregon State University Press.

Lee, Eugene C. 1960. *The politics of nonpartisanship: A study of California city elections.* Univ of California Press.

Leonard, Thomas C. 2016. *Illiberal reformers.* Princeton University Press.

Lineberry, Robert L, and Edmund P Fowler. 1967. "Reformism and public policies in American cities." *American Political Science Review* 61(3): 701–716.

Lukes, Timothy J. 1994. "Progressivism Off-Broadway: Reform Politics in San Jose, California, 1880-1920." *Southern California Quarterly* 76(4): 377–400.

Lumpkins, Charles L. 2006. *Black East St. Louis: Politics and economy in a border city, 1860–1945.* The Pennsylvania State University.

Martin, Roscoe C. 1933. "The municipal electorate: A case study." *The Southwestern Social Science Quarterly* pp. 193–237.

Menes, Rebecca. 2003. "Corruption in Cities: Graft and Politics in American Cities at the Turn of the Twentieth Century." NBER Working Paper 9990.

Merton, Robert. 1968. *Social theory and social structure.* Simon and Schuster.

Model, Suzanne. 2018. "The ethnic niche and the structure of opportunity: Immigrants and minorities in New York City." In *The" Underclass" Debate.* Princeton University Press pp. 161–193.

Renner, Tari, and Victor DeSantis. 1993. "Contemporary patterns and trends in municipal government structures." *Municipal Yearbook* 60: 57–69.

Rice, Bradley Robert. 2014. *Progressive cities: The commission government movement in America, 1901–1920.* University of Texas Press.

Ruhil, Anirudh VS. 2003. "Structural change and fiscal flows: A framework for analyzing the effects of urban events." *Urban Affairs Review* 38(3): 396–416.

Schiesl, Martin J. 1977. *The politics of efficiency: Municipal administration and reform in America, 1800-1920.* Univ of California Press.

Sealander, Judith. 2014. *Grand plans: Business progressivism and social change in Ohio's Miami Valley, 1890-1929.* University Press of kentucky.

Stewart, Frank Mann. 1950. *A Half Century of Municipal Reform.* University of California Press.

Stillman, Richard Joseph. 1974. *The rise of the city manager: A public professional in local government.* University of New Mexico Press.

Stone, Harold Alfred, Don Krasher Price, and Kathryn Haeseler Stone. 1940. *City manager government in nine cities.* Vol. 8 Committee on public administration of the Social science research council.

Story, Stephen B. 1926. "City manager progress." *American Political Science Review* 20(2): 361–366.

Taylor, Frederick Winslow. 1919. *The principles of scientific management.* Harper & brothers.

The Boston Globe. 1914. "City run like a big business corporation." February 15, `https://www.newspapers.com/image/430862108`.

The Morning Call. 1918. "Bethlehem now a third class city." Allentown, Pennsylvania. January 8, `https://www.newspapers.com/image/274666467`.

Trounstine, Jessica. 2006. "Dominant regimes and the demise of urban democracy." *The Journal of Politics* 68(4): 879–893.

Trounstine, Jessica. 2009. "Challenging the Machine–Reform Dichotomy: Two Threats to Urban Democracy." In *The city in American political development.* Routledge pp. 93–113.

Trounstine, Jessica. 2018. *Segregation by design: Local politics and inequality in American cities.* Cambridge University Press.

Vadasz, Thomas Patrick. 1975. *The History of an Industrial Community: Bethlehem, Pennsylvania, 1741-1920.* The College of William and Mary.

Waldinger, Roger, and Mehdi Bozorgmehr. 1996. *Ethnic Los Angeles.* Russell Sage Foundation.

Weinstein, James. 1962. "Organized business and the city commission and manager movements." *The Journal of Southern History* 28(2): 166–182.

Weinstein, James. 1969. *The corporate ideal in the liberal state: 1900-1918.* Beacon Press.

White, Michael J. 1986. "Segregation and diversity measures in population distribution." *Population index* pp. 198–221.

Wilson, Franklin D. 1999. "Labor-Market Opportunities." *Immigration and Opportuntity: Race, Ethnicity, and Employment in the United States* p. 106.

Xu, Yiqing. 2017. "Generalized synthetic control method: Causal inference with interactive fixed effects models." *Political Analysis* 25(1): 57–76.

Zunz, Olivier. 2000. *The changing face of inequality: Urbanization, industrial development, and immigrants in Detroit, 1880-1920.* University of Chicago Press.

Online Appendix: When Progressives Took Power. The Political and Economic Effects of Municipal Reform in U.S. Cities

Intended for online publication only.

A.2 Data Appendix

Table A.1: Summary Statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
Reformed City	0.409	0.492	0	1	455
Elections					
Turnout Congressional Elections	53.354	17.62	0.3	98.900	383754
Turnout Presidential Elections	60.642	18.356	0	99.2	137929
Census - Earnings					
Predicted Log Earnings (Immigrant)	7.057	0.132	6.5	7.509	6305
Predicted Log Earnings (Native)	7.124	0.105	6.607	7.468	6305
Predicted Log Earnings (Gap: Native - Immigrant)	0.067	0.11	-0.47	0.409	6305
Predicted Log Earnings (Black)	6.707	0.157	6.11	7.543	4845
Predicted Log Earnings (White)	7.127	0.103	6.642	7.468	4845
Predicted Log Earnings (Gap: White - Black)	0.42	0.12	-0.442	0.874	4845
Predicted Log Earnings (Non-Business)	6.944	0.139	6.377	7.291	6310
Predicted Log Earnings (Business)	7.453	0.087	7	7.675	6310
Predicted Log Earnings (Gap: Business - Non-Business)	0.509	0.11	0.2	0.924	6310
Log of Finance Spending					
Total	14.657	1.309	12.411	19.719	5106
School	13.565	1.287	11.155	18.812	8435
Police	12.249	1.406	9.384	17.861	8268
Highways	12.43	1.275	9.817	17.248	8436
Hospitals, Charities and Corrections	11.727	1.982	3.951	17.574	4429
Fire	12.328	1.197	9.832	17.03	8268
Sanitation	11.89	1.437	8.654	17.549	8268
Recreation	11.043	1.687	0	16.407	7930
Health Conservation	10.587	1.618	5.74	15.849	8268
Census - Other Outcomes					
Employment (Gap: Native - Immigrant)	-0.011	0.048	-0.225	0.295	2109
Employment (Gap: White - Black)	0.036	0.13	-0.37	0.883	1650
Employment (Gap: Business - Non-Business)	0.182	0.084	-0.237	0.532	2112
Local Government Job (Gap: Native - Immigrant)	0.002	0.01	-0.071	0.073	6305
Local Government Job (Gap: White - Black)	0.006	0.013	-0.149	0.083	4845
Group Population Share (Immigrants)	0.498	0.238	0.017	0.969	6305
Group Population Share (Black)	0.118	0.141	0.001	0.781	4845
Group Population Share (Non-Business)	0.93	0.02	0.823	0.987	6310
Segregation - Dissimilarity (Immigrant)	0.252	0.079	0.062	0.6	5044
Segregation - Dissimilarity (Black)	0.584	0.091	0.159	0.999	3876
Segregation - Isolation (Immigrant)	0.093	0.046	0.015	0.386	5044
Segregation - Isolation (Black)	0.26	0.119	0.007	0.653	3876
Literacy (Gap: Native - Immigrant)	0.055	0.057	-0.065	0.495	5044
Literacy (Gap: White - Black)	0.082	0.08	-0.021	0.639	3876
Literacy (Gap: Business - Non-Business)	0.039	0.041	-0.06	0.306	5048
Aggregate Outcomes					
Log Predicted Earnnings	6.996	0.127	6.535	7.222	455
Log Total Population	9.092	1.107	6.021	14.518	6310
Employment	0.801	0.076	0.446	0.950	2112
Local Government Job	0.01	0.007	0	0.077	6310
Literacy	0.946	0.049	0.625	1	5048

Table A.2: Description of IPUMS Variables Used in Analysis

IPUMS Variable	Description & Notes
LABFORCE	A dichotomous variable indicating whether a person participated in the labor force. See EMPSTAT for a non-dichotomous variable that indicates whether the respondent was part of the labor force – working or seeking work – and, if so, whether the person was currently unemployed. *Notes*: we combine this variable with CLASSWKR to identify if an individual is employed. Note that the variable EMPSTAT referenced in the IPUMS definition above is only available for the years 1910, 1930, and 1940. However, LABFORCE alone cannot distinguish between employed workers and unemployed individuals who are in the labor force but currently out of work. Our variable Employment takes a value of 1 if an individual is listed as being in the labor force AND has a current occupation listed for the CLASSWKR variable
CLASSWKR	Indicates whether respondents worked for their own enterprise(s) or for someone else as employees. *Notes*: in combination with LABFORCE, allows us to distinguish between employed and unemployed individuals in the labor force.
INCWAGE	Reports each respondent's total pre-tax wage and salary income - that is, money received as an employee - for the previous year. *Notes*: we use wages in 1940 to build a prediction model that allows us to impute wages to previous years based on an individuals' occupation, immigration status, age, and place of residence. Used to construct our variable Predicted Log Earnings
OCC1950	Applies the 1950 Census Bureau occupational classification system to occupational data, to enhance comparability across years. Note: used to predict Log Earnings
NATIVITY	Indicates whether respondents were native-born or foreign-born; for native-born respondents, it indicates whether their mothers and/or fathers were native-born or foreign-born. *Notes*: we define an individual as an immigrant if they are foreign-born or if either of their parents is foreign-born
RACE	Indicates whether respondents were white, African American, Native American, Chinese, Japanese, or classified as "other"

A.3 Case Study Evidence: Validating Reform-Style Government as a Proxy for Progressive Power

Here we present several additional case studies validating our argument that i) the adoption of city-manager or commissioner form of government reflected a moment when Progressive seized power and ii) this reform was typically accompanied by other Progressive measures. Other case studies are presented in the main paper in section 6.

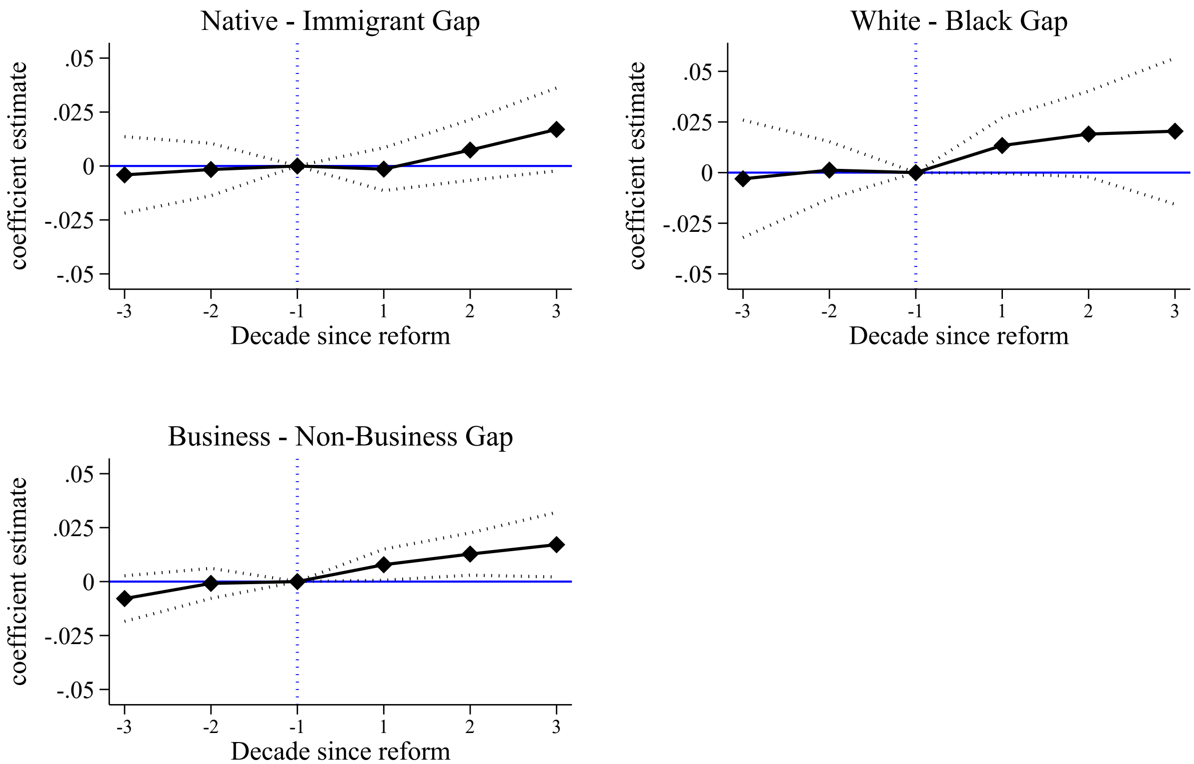
In Portland, Oregon, scandals surrounding the administration of Allen G. Rushlight—mayor between 1911 and 1913—were the breeding ground for the fast rise to power of the local progressive movement. After the New York Bureau of Municipal Research offered a detailed and jarring critique of Portland's local government, in 1913 Portland voters supported a new city charter mandating a commission government and elected the progressive mayor Russel H. Albee (Bureau of Municipal Research 1913). The new charter passed by a small margin, with opposition coming from the local Republican Party machine, and support coming from Roosevelt Progressives, downtown businesses, and the middle class homeowners and professionals (Johnston 2003; Lansing 2005).

The local business elites of Bethlehem, Pennsylvania, had long advocated for the consolidation of the municipality of Bethlehem and South Bethlehem into the city of Bethlehem and for a new city charter establishing a commission form of government (Vadasz 1975). This plan was realized thanks to the backing of the Bethlehem Steel Company in 1918, when its executive Archibald Johnston was elected mayor in the first election for the city of Bethlehem which took place with an at-large non-partisan race (The Morning Call 1918).

Finally, in San Jose, California, a Good Government League was formed as early as 1900 by the brothers E.A. and J.O. Hayes, and a mayor backed by the League served one term starting in 1902 (Lukes 1994; Bridges 1999). Interestingly, these early San Jose reformers were characterised by nativist rhetoric and their particular brand of progressivism prioritising "urban development, cheap labor, and electoral reform" influenced the large progressive movement in California (Lee 1960). Lee (1960) reports a new charter passed in 1906, but we could not find any information regarding the provisions of this new charter. Finally, in 1914 the progressives took control of City Hall again. In 1915, as reported in our data, they established the City Manager form of government, accompanied by at-large council elections and non-partisan ballots (Lee 1960).

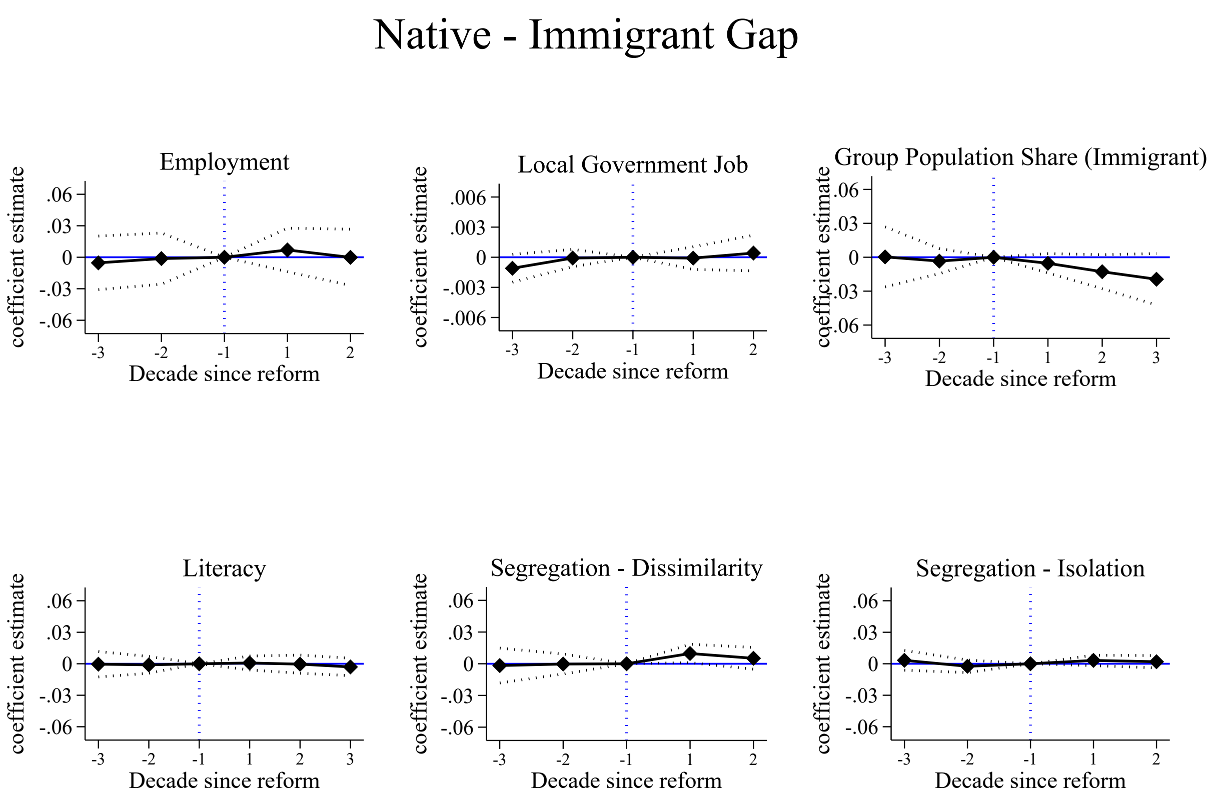
A.4 Additional Statistical Results

Figure A.1: The Impact of Reform on Earnings Gap



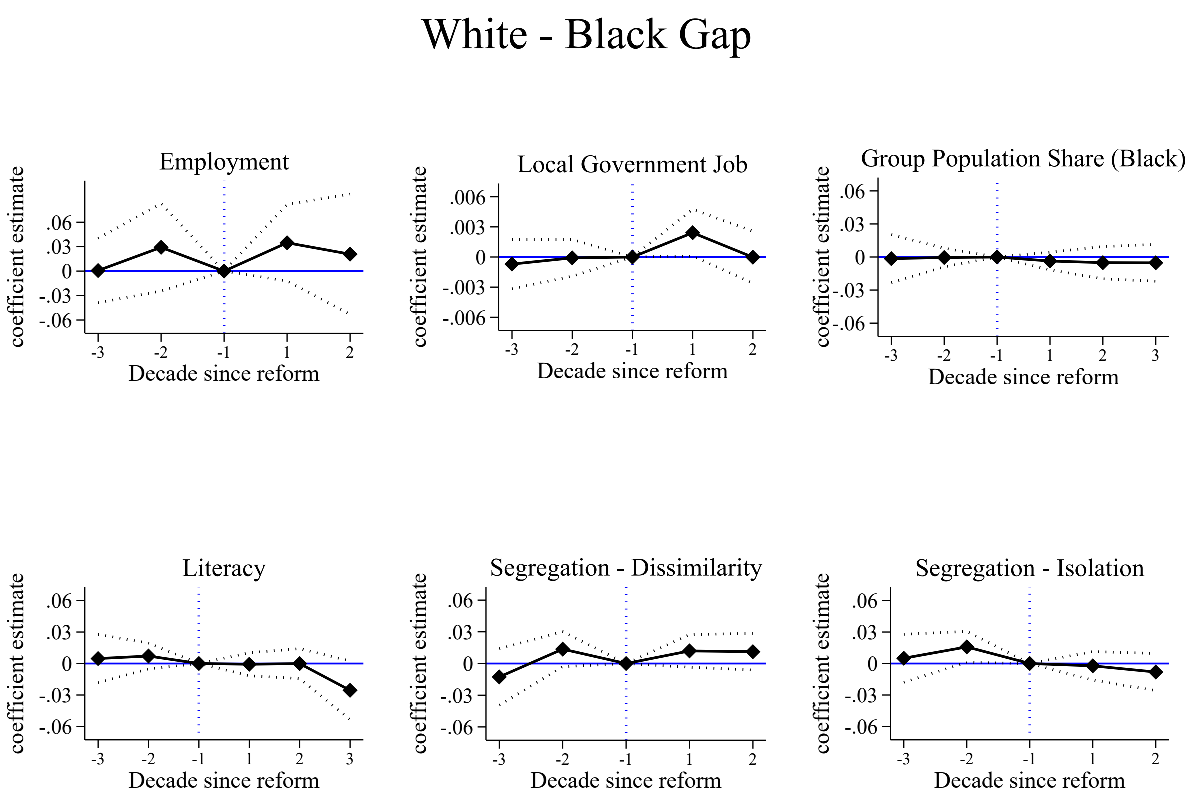
Notes: Shows coefficient estimates from the model described in equation 4 employing balancing weights for outcomes shown in Table 1. Dotted line shows the 95 percent confidence intervals.

Figure A.2: Event Study Estimates for the Native-Immigrant Gap in Other Socioeconomic Outcomes



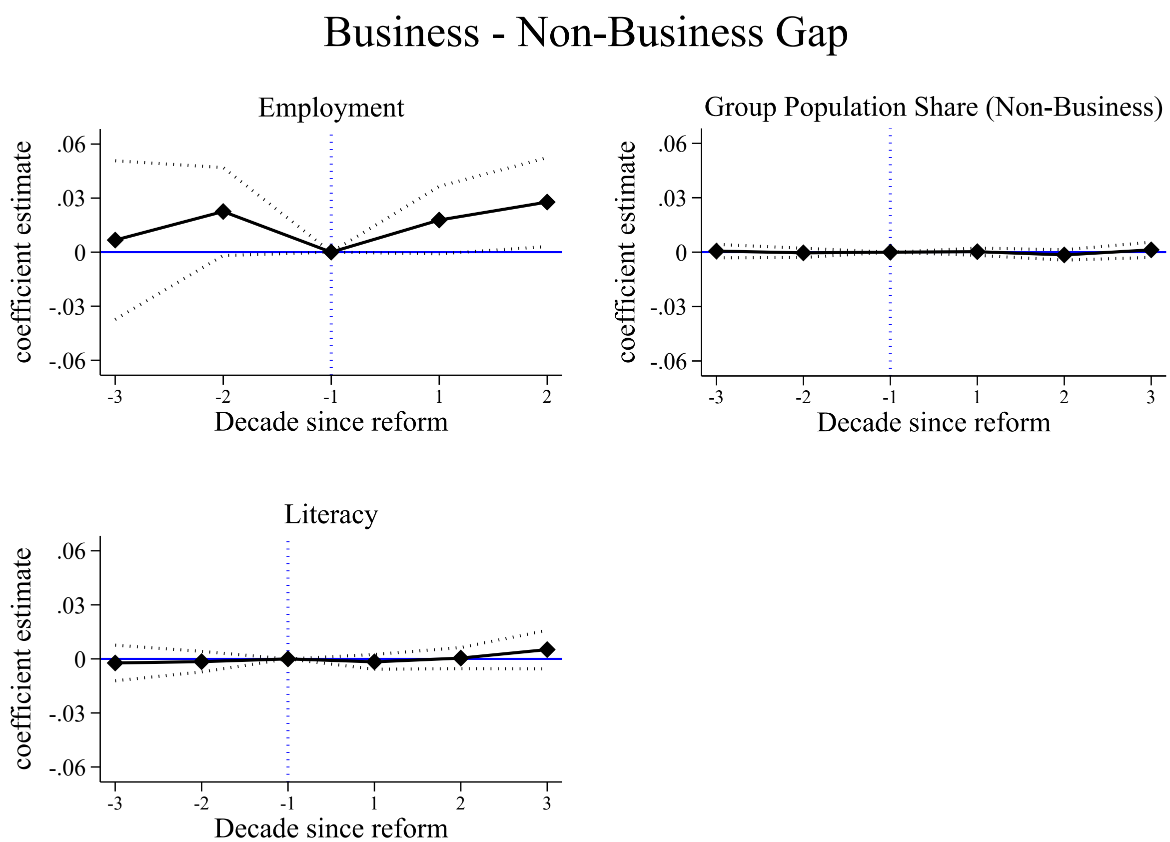
Notes: Shows coefficient estimates from the model described in equation 4 employing balancing weights for outcomes shown in Figure 4 for native and immigrant residents. Dotted line shows the 95 percent confidence intervals.

Figure A.3: Event Study Estimates for the White-Black Gap in Other Socioeconomic Outcomes



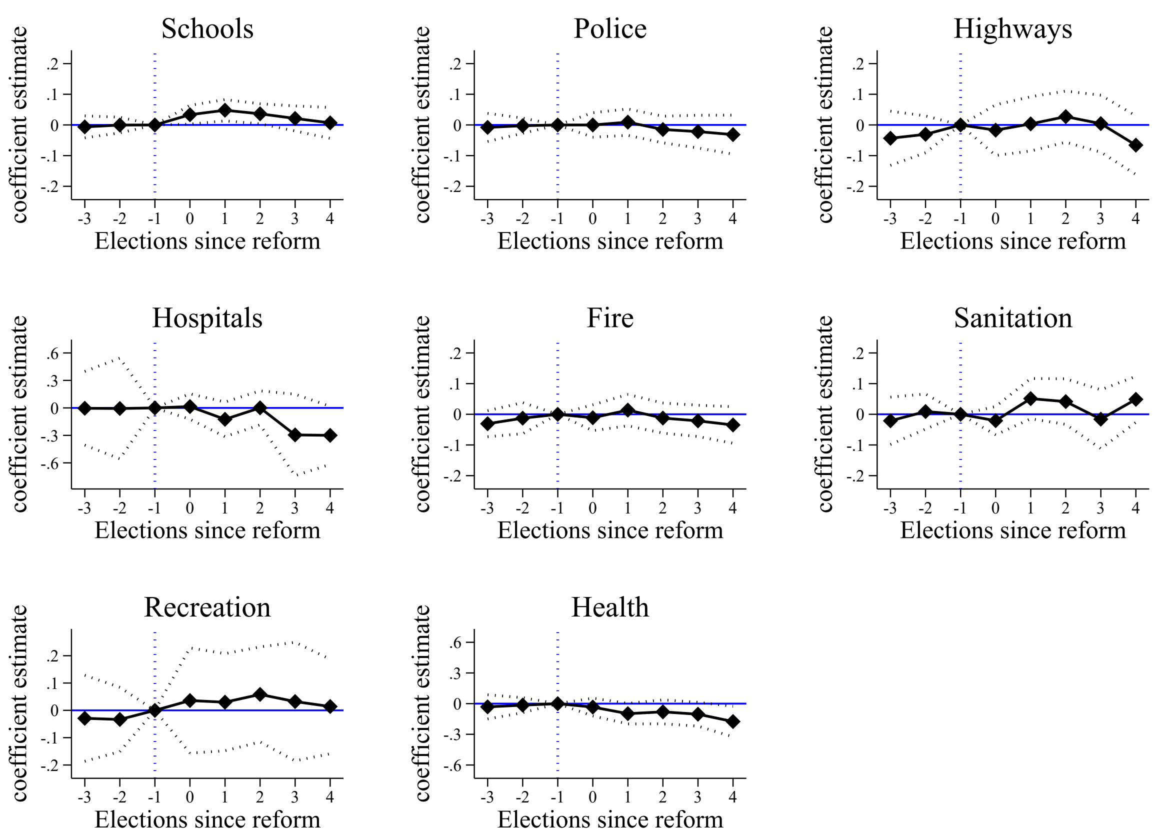
Notes: Shows coefficient estimates from the model described in equation 4 employing balancing weights for outcomes shown in Figure 4 for white and black residents. Dotted line shows the 95 percent confidence intervals.

Figure A.4: Event Study Estimates for the Business-Non-Business Gap in Other Socioeconomic Outcomes



Notes: Shows coefficient estimates from the model described in equation 4 employing balancing weights for outcomes shown in Figure 4 for residents in business and non-business occupations. Dotted line shows the 95 percent confidence intervals.

Figure A.5: Event Study Estimates for Public Expenditures



Notes: Shows coefficient estimates from the model described in equation 4 employing balancing weights for outcomes shown in Table 4. Dotted line shows the 95 percent confidence intervals.

Table A.3: The Impact of Reform on the Native-Immigrant Gap in Other Socioeconomic Outcomes

	Native - Immigrant Gap					
	Employment	Local Government Job	Group Population Share	Literacy	Segregation Dissimilarity	Segregation Isolation
	(1)	(2)	(3)	(4)	(5)	(6)
Reform	-0.005	-0.001	-0.011	0.001	0.008	0.003
	(0.006)	(0.001)	(0.009)	(0.003)	(0.004)	(0.002)
Num Obs	2,109	6,305	6,305	5,044	5,044	5,044
Num Cities	434	454	454	454	454	454
Outcome Mean	-0.009	0.002	0.401	0.043	0.235	0.084
Outcome Stdv	.047	.009	.232	.05	.072	.04
City FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year × Timing Group FEs	Yes	Yes	Yes	Yes	Yes	Yes
Balancing Weights	Yes	Yes	Yes	Yes	Yes	Yes

Notes: the table above reproduces estimates shown in figure 4 for native and immigrant residents. The two indices of segregation do not refer to the gap because they are city-wide measures. The group population share refers to the share of immigrant men. The mean and standard deviation of the weighted dependent variable are shown in the table.

Table A.4: The Impact of Reform on the White-Black Gap in Other Socioeconomic Outcomes

	White - Black Gap					
	Employment	Local Government Job	Group Population Share	Literacy	Segregation Dissimilarity	Segregation Isolation
	(1)	(2)	(3)	(4)	(5)	(6)
Reform	-0.003	-0.001	0.000	-0.005	0.007	-0.004
	(0.013)	(0.001)	(0.001)	(0.007)	(0.007)	(0.008)
Num Obs	1,650	4,845	4,845	3,876	3,876	3,876
Num Cities	349	366	366	366	366	366
Outcome Mean	0.036	0.006	0.076	0.087	0.581	0.286
Outcome Stdv	.13	.014	.019	.081	.086	.123
City FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year × Timing Group FEs	Yes	Yes	Yes	Yes	Yes	Yes
Balancing Weights	Yes	Yes	Yes	Yes	Yes	Yes

Notes: the table above reproduces estimates shown in figure 4 for white and black residents. The two indices of segregation do not refer to the gap because they are city-wide measures. The group population share refers to the share of black men. The mean and standard deviation of the weighted dependent variable are shown in the table.

Table A.5: The Impact of Reform on the Business-Non-business Gap in Other Socioeconomic Outcomes

	Business - Non-Business Gap		
	Employment	Group Population Share	Literacy
	(1)	(2)	(3)
Reform	0.002	-0.011	0.000
	(0.007)	(0.009)	(0.003)
Num Obs	2,112	6,305	5,048
Num Cities	435	454	455
Outcome Mean	0.183	0.401	0.036
Outcome Stdv	.082	.232	.038
City FEs	Yes	Yes	Yes
Year × Timing Group FEs	Yes	Yes	Yes
Balancing Weights	Yes	Yes	Yes

Notes: the table above reproduces estimates shown in figure 4 for residents in business and non-business occupations. The group population share refers to the share of non-business men. The mean and standard deviation of the weighted dependent variable are shown in the table.

Table A.6: Robustness to excluding control cities with non-partisan elections by 1940

	Predicted Log Earnings								
	Immigrant	Native	Gap	Black	White	Gap	Non-Business	Business	Gap
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Reform	-0.017	-0.008	0.008	-0.014	0.002	0.016	-0.009	0.006	0.016
	(0.007)	(0.006)	(0.007)	(0.011)	(0.008)	(0.012)	(0.005)	(0.003)	(0.005)
Num Obs	4,265	4,265	4,265	3,385	3,385	3,385	4,270	4,270	4,270
Num Cities	352	352	352	293	293	293	353	353	353
Outcome Mean	1183.201	1223.397	40.196	785.422	1217.772	432.35	1015.874	1708.912	693.039
Outcome Stdv	152.906	147.3	134.583	147.672	148.489	119.928	149.34	184.095	130.344
City FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Timing Group FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Balancing Weights	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Reproduces results shown in Table 1 excluding from the sample those control cities that had non-partisan elections in 1940. The mean and standard deviation of the unweighted dependent variable are shown above.

Table A.7: Heterogeneity based on non-partisan elections in 1940

	Predicted Log Earnings								
	Immigrant	Native	Gap	Black	White	Gap	Non-Business	Business	Gap
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Reform × Non-partisan	0.021	0.015	-0.006	0.020	0.009	-0.012	0.008	-0.005	-0.013
	(0.013)	(0.009)	(0.012)	(0.017)	(0.010)	(0.020)	(0.009)	(0.005)	(0.011)
Reform	-0.024***	-0.010	0.014	-0.015	-0.001	0.014	-0.013*	0.007*	0.019**
	(0.009)	(0.007)	(0.009)	(0.014)	(0.008)	(0.016)	(0.007)	(0.004)	(0.008)
Non-partisan	-0.005	-0.012*	-0.007	-0.017	-0.012	0.005	-0.003	0.006**	0.010
	(0.009)	(0.006)	(0.007)	(0.011)	(0.008)	(0.013)	(0.005)	(0.003)	(0.006)
Num Obs	6,285	6,285	6,285	4,825	4,825	4,825	6,290	6,290	6,290
Num Cities	453.000	453.000	453.000	365.000	365.000	365.000	454.000	454.000	454.000
Outcome Mean	1180.934	1221.088	40.15428	783.681	1215.863	432.182	1014.377	1707.941	693.564
Outcome Stdv	152.5885	148.382	139.054	148.007	147.498	116.179	150.252	1707.941	127.971
City FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year × Timing Group FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Balancing Weights	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Shows heterogeneity of results shown in Table 1 for cities that had non-partisan elections in 1940. The mean and standard deviation of the unweighted dependent variable are shown above.

Table A.8: The Impact of Reform on Voter Turnout – Robustness to County Clustering

	Congressional Elections Turnout		Presidential Elections Turnout	
	(1)	(2)	(3)	(4)
Reform	-3.366	-2.045	-3.313	-2.242
	(0.753)	(0.611)	(0.674)	(0.641)
Num Obs	425,586	383,754	137,929	137,929
Num Cities	1342	1342	1649	1649
Outcome Mean	53.364	48.780	60.642	55.449
Outcome Stdv	17.617	18.932	18.356	20.409
City × Timing Group FEs	Yes	Yes	Yes	Yes
Year × Timing Group FEs	Yes	Yes	Yes	Yes
Balancing Weights	No	Yes	No	Yes

Notes: the table above reproduces estimates shown in Table 3 with standard errors clustered at the county level. See Table 3 for additional table notes.

Table A.9: The Impact of Reform on Voter Turnout – Restricting Sample to counties in Earnings Results Sample

	Turnout Congressional Elections		Turnout Presidential Elections	
	(1)	(2)	(3)	(4)
Reform	-4.350	-1.946	-4.887	-3.145
	(0.922)	(0.958)	(1.006)	(0.948)
Num Obs	122,139	58,674	33,965	28,403
Num Cities	453	402	453	447
Outcome Mean	53.444	49.059	60.816	56.543
Outcome Stdv	18.322	18.8	18.213	19.984
City × Timing Group FEs	Yes	Yes	Yes	Yes
Year × Timing Group FEs	Yes	Yes	Yes	Yes
Balancing Weights	No	Yes	No	Yes

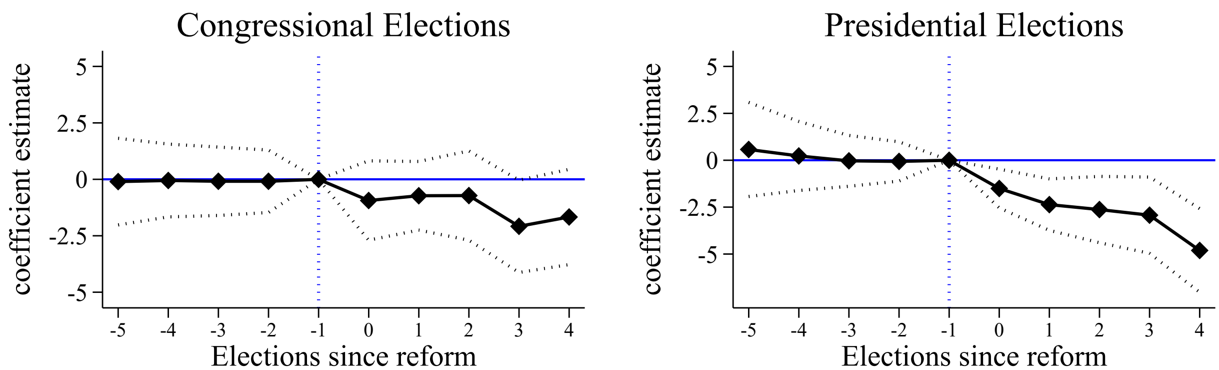
Notes: Reproduces results shown in Table 3, restricting the sample to the cities also appearing in Table 1. The mean and standard deviation of the unweighted dependent variable are shown in column (1) and column (3) of the table above. The mean and standard deviation of the weighted dependent variable are shown in column (2) and (4) of the table above.

Table A.10: The Impact of Reform on Voter Turnout – Restricting Sample to One-City Counties

	Turnout Congressional Elections		Turnout Presidential Elections	
	(1)	(2)	(3)	(4)
Reform	-0.536	-1.173	0.157	-0.239
	(0.861)	(0.884)	(0.840)	(0.887)
Num Obs	87,297	74,319	47,278	47,278
Num Cities	449	449	626	626
Outcome Mean	56.029	47.412	59.243	50.789
Outcome Stdv	21.367	21.86	23.779	24.259
City × Timing Group FEs	Yes	Yes	Yes	Yes
Year × Timing Group FEs	Yes	Yes	Yes	Yes
Balancing Weights	No	Yes	No	Yes

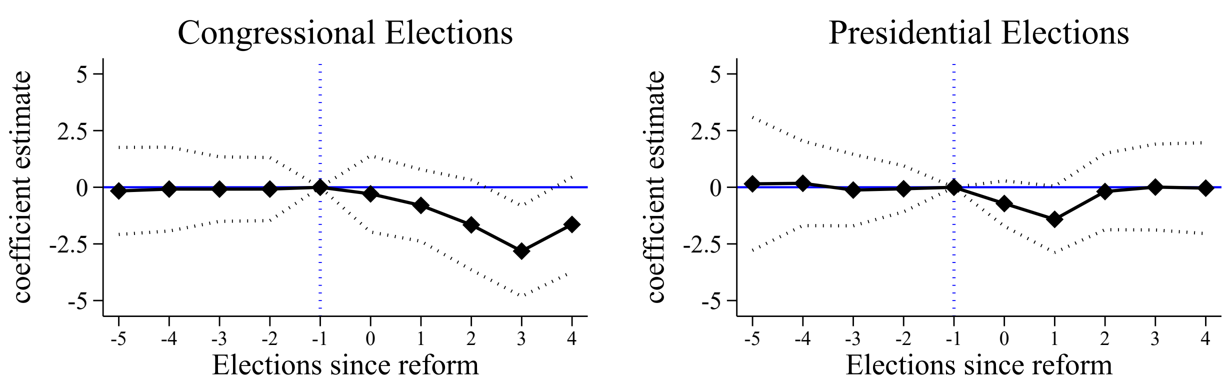
Notes: Reproduces results shown in Table 3restricting the sample to cities that do not share the county with any other city in our sample. The mean and standard deviation of the unweighted dependent variable are shown in column (1) and column (3) of the table above. The mean and standard deviation of the weighted dependent variable are shown in column (2) and (4) of the table above.

Figure A.6: Event Study Estimates Restricting Sample to counties in Earnings Results Sample



Notes: Reproduces estimates shown in Figure 5 restricting the sample to counties included in our main results shown in Table 1 and Figure A.1. See Figure 5 for additional figure notes.

Figure A.7: Event Study Estimates Restricting Sample to One-City Counties



Notes: Reproduces estimates shown in Figure 5 restricting the sample to cities that do not share the county with any other city in our sample. See Figure 5 for additional figure notes.