

THE ADOPTION OF CONSTITUTIONAL HOME RULE:
A TEST OF ENDOGENOUS POLICY DECENTRALIZATION¹

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Introduction

Between 1875 and 1912, twelve states adopted constitutional home rule for municipalities. The adoption of home rule legislation allowed municipalities the option of writing their own charters and the ability to independently determine their desired structure and functions. The state-level choice to adopt home rule was not an exogenous decision; it was determined by underlying social, economic and political changes in each individual state. While the state decision to adopt home rule is influenced by many factors, this paper explores one possible mechanism. I use a fiscal federalism framework to test whether municipal preferences for home rule have an effect on the state adoption of home rule.

During this period, home rule was a right granted to municipalities in the state constitution and implemented by the state legislature.² In a home rule state, each municipality decides whether or not to draft its own unique home rule charter. Municipalities have the default option of adopting a standard organizational form provided under general state legislation. If we assume the state legislature reflects local preferences, states with more heterogeneity across municipalities may have a greater desire or need for home rule by municipal governments and should be more likely to adopt home rule. States that have more homogeneity across local governments are less likely to adopt home rule because localities are satisfied with a uniform general law for municipalities.³ I test the hypothesis by using a unique municipal-level dataset to estimate a latent preference for home rule for each municipality and then compare the dispersion of these preferences across states. The results consistently show that states with more heterogeneous municipal-level preferences for home rule adopted constitutional home rule at the state level.

The institution of home rule first appeared during a quite lively period for local governments. Local governments in the late 19th and early 20th centuries took on increased roles and responsibilities. According to Holcombe and Lacombe (2004), in 1820 local government expenditures were just 13.5% of total government expenditures. By 1902, that number was 58.8%, and reached its peak in 1913 at 64%. Wallis (2000) highlights the growing importance of local government relative to state and local

¹ I am grateful to John Wallis, Wally Oates, and Mark Duggan for their guidance and support on this project. I also thank John Ham, John Shea, Tracey Gordon, and seminar participants at the University of Maryland, the NBER Development of the American Economy Summer Institute, and the History of Capitalism conference at Harvard University for their comments and suggestions. All remaining errors are my own.

² Later in the 20th century, some states adopted statutory home rule instead of incorporating home rule into their state constitutions. Statutory home rule provisions, like general legislation for municipalities, are statutes of the state legislature and subject to amendment or revocation. From here on, the use of the term “home rule” implies constitutional home rule, not the later version of statutory home rule.

³ I want to emphasize the distinction between heterogeneity across governments and heterogeneity within a government. This paper identifies heterogeneity across municipalities within a state. I will later consider how the degree of heterogeneity within municipalities may be related to the use of home rule charters.

governments; in 1840 per capita local government revenues were about 40% higher than state revenues, but by 1900 they were 260% higher. Both Holcombe and Lacombe and Wallis present these statistics to motivate further exploration into why and how local governments were growing relative to the other levels of government. Historians have long noted the significant demographic, economic and social changes in the late 19th century. Part of the growth in local level governments can be attributed to changes like the rapid urbanization of cities. But, that change alone does not characterize the expansion of local governments. Over the 20th century, the population became increasingly urban, yet local governments were surpassed by the federal government. An alternative explanation can be found in the fundamental changes in the state provisions for local governments. The adoption of home rule was one such change. The grant of home rule impacts the way municipal governments choose an efficient structure and the optimal set of public goods. While the use of home rule will cause change, its arrival also reflects change. The advent of home rule points to changes in demand for additional autonomy during this dynamic period of municipal history.

Writing ten years after the adoption of the home rule amendment, Charles P. Hall described the difference home rule had made for municipalities in Minnesota. He recognized its limitations, specifically that municipalities were still creatures of the state and could not supersede the general state laws. However, he boldly claimed that:

Already the small municipalities are finding themselves better governed than before; the spirit of freedom, long confined, becomes a light in the community life: while other cities, less progressive, go lumbering on, under out-grown legislative grants. No municipality, though it be small in numbers, is deprived of the home rule privilege: thinking men and understanding voters there must be; but, with these present, the benefit may be secured.⁴

Similar observations were made in other states. While scholars recognize the drastic changes municipal governments were able to make through home rule, few have tried to place home rule within the context of legislative change. With only twelve of forty-eight states adopting home rule in this era, it is evident home rule was only one of many viable solutions for how states structured a system of local government. This paper helps answer the question of why home rule was a sensible institution for certain state governments to adopt.

Background

Evolution of Municipal Legislation

State governments opened up access to both political and economic organizations in the 19th century. There are clear parallels between state level constitutional changes regarding private corporations and the less well understood changes instituted for public corporations.⁵ Initially, all corporations, public or private, were chartered through special legislation. In tandem with directly

⁴ Hall (1906) p7.

⁵ Public corporations include municipal governments, county governments, school districts, and special districts.

solving state-level debt problems, general incorporation laws for private firms enacted by many states in the 1840s were an economic solution to the political problem of corruption and special interests.⁶ State governments were taking steps to remove special interests and the predisposition for corruption by establishing “general incorporation acts” that created a one-size-fits-all corporation available to everyone through an administrative process. While the political issues of special interests and corruption were resolved through general legislation, these general laws constrained the internal structure of private corporations. In the 1880s and later, states began to loosen the restrictions on private corporate structure through the passage of liberal general incorporation acts which allowed corporations more freedom.

The initial need for municipal general legislation stemmed from similar problems of special interests and political manipulation. Large cities were targeted with undue special legislation passed by state legislatures. Sometimes the state, burdened by state level debt restrictions imposed in the 1840s, turned to municipalities to shoulder the burden of internal improvements and investments, passing unfunded (or simply unfair) and intrusive mandates. General legislation protected municipalities from unwanted abuse by state-level politics, and also provided a uniform structure under which all local governments could operate and easily gain access to the corporate form. In 1848, the constitution of Wisconsin called for “one system of town and county government.” Numerous states followed, including constitutional articles calling for municipalities to be incorporated and organized under general laws.⁷

However, as in the case of private corporations, the one-size-fits-all rubric of general legislation was not suitable for all public corporations. In some states, a Pareto-improving solution was to have general legislation available for those well served by it, and to give municipalities the option of independently chartering themselves. The resolution retained the political security afforded by general legislation and provided the freedom of organization to those who needed it most. This powerful grant of autonomy is the result of the home rule movement of the Progressive Era. The initial wave of constitutional home rule in the United States stretches from 1875 to 1912, a period in which twelve states adopted home rule. Weiner (1937) uses World War I to mark a turning point in the history of home rule. Home rule was not an end in itself, but a means to good government. The fervent reform mentality and pursuit of more efficient government waned in the years following the War. Wisconsin (1933) and West Virginia (1936) were the next two states to adopt home rule. These later states started a trend of less complex and more liberal grants of home rule to municipalities which intensified in the 1960s and 1970s.

Institution of Home Rule

While the term home rule doesn't have a uniform and exact legal definition, the idea implies the transfer of specified government powers from state to local governments. The concept is parallel to devolution, often used to describe decentralization of power in other countries and historical periods.

⁶ See Wallis (2005).

⁷ See Hennessey (2009) for a more complete picture of the history of municipal general legislation.

While devolution encompasses a wide range of transferred powers and responsibilities across different types of government structures, the home rule movement in the United States can be described narrowly. Home rule in the United States appeared in state constitutions, granting municipalities the authority to frame and adopt their own charters.

Historical accounts suggest that the home rule movement was motivated by the desire of local governments to become more autonomous from the state legislature. Progressive historians document how cities yearned for economic individualism and separation from state interference. Howe (1905) argues that municipalities needed freedom from “the jockeying measures of party bosses, the attempted passage of franchise grabs by the legislature, the interference by the state with the police and fire departments, [and] the burden of securing relief from excise and financial problems” and should “be as free from the state as the state is as free from the nation at large.”⁸

However, the appeal of home rule was not limited to the concept of freedom from the burden of state control. The advantage of home rule is that it allows a local government to become more efficient and better suited to meet the demands of its constituents. Rapid urbanization required cities to provide new public services, but they were often constrained by the governance structure under general legislation and needed to have a flexible charter through which they could promote internal reorganization. Fox (1977) notes that the “best that a city of the 1880s could hope for in the way of efficient service provision was economical handling of its purchases and supplies of labor,” as the city was not able to supervise labor and projects like private firms.⁹ Freedom from the state legislature was important, especially for large metropolitan cities which were handed extreme and unfunded mandates by the state legislature. However, home rule was sought by municipalities of all sizes as way to gain control over local affairs.

Home rule granted each municipality the ability to independently draft its own charter. A home rule charter is a constitution for the municipality, a formal recognition of local self-determination and a framework for government that persists over time. A charter generally grants power in five areas: (1) the powers incident to all corporations; (2) power to levy taxes; (3) power to appropriate and spend money; (4) power to perform certain services; and (5) power to enact and enforce local police ordinances.¹⁰ A municipal government, by means of its own electorate, could now determine how the government would be run and who would run it.

Adoption of a home rule charter allows for substantial structural changes. In Michigan, municipalities under general law were restricted to operate as a weak mayor-council government. By adopting a home rule charter, municipalities could decide to change the structure to a commission or even a city-manger form of government. Home rule charters enabled municipalities to impose limitations on the government that were more stringent than state laws. Some home rule municipalities chose to place

⁸ Howe (1905) p161-162.

⁹ Fox (1977) p90-91.

¹⁰ Kimball (1922) p376, which refers to the classification by Goodnow and Bates in Municipal Government and to work by Dillon.

tax or debt limitations upon themselves above and beyond those imposed by the state. Municipalities also used home rule charters to expand the range of local powers and functions, often as a means to facilitate ownership and operation of utilities. Home rule charters provided citizens with the use of the initiative, referendum and recall. Access to the initiative played an important role in home rule municipalities in Minnesota, for example, with respect to the adoption of liquor laws.

Municipalities also pursued home rule as a means to increase accountability in local government. Municipalities in the late 19th century lacked executive power, and the blame for failed public works projects was often shifted up to the state government instead of being dealt with at a local level. Home rule redirected the responsibility for governance: blame could not be passed back up to the state legislature. Responsibility rested squarely on the shoulders of the local officials. Municipal governments were held accountable to their citizens both through the power of recall and through possible rulings made by state courts.

Endogenous Policy Determination

The analysis of home rule presents a unique opportunity to investigate the endogenous determination of government structure. Often, empirical research either takes government structure as given or assumes that institutional change and policy determination are exogenous. Hero (1986) notes the abundance of research that focuses on the policy and electoral consequences of different urban governmental structures, but which fails to investigate what leads to the adoption of those particular structures. By overlooking how institutions and governance are endogenously determined, past research has sometimes ignored valuable information that can help explain why and how outcomes evolve. As Nice (1983) noted, municipal government is shaped by state governments as well as overarching legal, political, cultural and historical influences.

Strumpf and Oberholzer-Gee (2002) tackle the issue of identifying what contributes to state-level decisions. They construct a positive theory of endogenous policy determination to empirically test a central hypothesis of fiscal federalism: that heterogeneous preferences lead to decentralized decision making. The authors look at the state level decision to decentralize liquor control to the county level or to maintain a centralized, state-level liquor policy. Their hypothesis is that where there is wide variation in liquor preference (wet versus dry) across counties, states are more likely to decentralize control. The empirical analysis consists of two stages. In the first stage, county preferences for liquor control are estimated based on those states where decentralized decision of the policy variable was allowed. Then using the estimation results, they simulate what counties currently under a centralized policy would have done had they instead been under a decentralized decision-making structure.

The innovation of Strumpf and Oberholzer-Gee's approach is the recognition that state-level decisions rely on the distribution of preferences across the local governments. As described by Besley and Coate (2003), choices with respect to decentralized decision-making are not only based on

differences in spillovers and other externalities of centralization, but also on the differences in tastes for public goods. The second stage of the Strumpf and Oberholzer-Gee analysis compares the predictions across decentralized and centralized states. If a majority of the counties in a state are similar, then the state legislature is likely to find common ground through general legislation. However, even if the majority is similar, if the minority is sufficiently different from the majority, then they may be able to "buy" the votes of the majority in order to decentralize control through the state legislature. Strumpf and Oberholzer-Gee compare preferences within a state by measuring the variance of preferences and the strength of preferences to capture the heterogeneity and minority interests within each state.

Approach

The adoption of home rule at the state level must be influenced by the demand for home rule at the municipal level. All else equal, states where municipalities want home rule will be more likely to adopt home rule than those states where municipalities do not have an interest in the institution. Demand for home rule is greater when the optimal governance structure for a municipality diverges farther from the structure provided under general legislation. A statewide demand for home rule happens when heterogeneity in the optimal governance structure for each municipality can't be accommodated by a uniform policy under general legislation. This need is described as "strong" local preference for home rule, measured both by the magnitude and variation of municipal home rule preference.

In order to compare the municipal preferences in home rule states with those in non-home rule states, a measure of municipal taste for home rule must be developed. I use data from states that granted home rule to estimate the determinants of the choice by municipalities of whether or not to adopt a home rule charter. In most states, less than half of the municipalities adopted a home rule charter when given the opportunity, so there is considerable variation to exploit. The estimates are used to generate a latent taste for home rule for each municipality in the sample. We can use the coefficients to predict a latent preference for municipalities in non-home rule states that were never granted the option of home rule. The key hypothesis to test is whether municipalities in home rule states have greater heterogeneity in the estimated latent preference for home rule.

While the initial purpose of the municipal-level estimation is to create a measure for local home rule preference, the estimation also analyzes the forces driving the pursuit of self-governance through home rule chartering. As discussed earlier, municipalities in the late 19th and early 20th centuries increased their provision of goods and services to citizens. Management of increased spending policies and expanded revenue collection could be aided by writing and adopting a tailored a home rule charter. Thriving municipalities that had reasons to utilize home rule chartering are identified by three main characteristics: size, growth and investment in infrastructure. Municipality size indicates economies of scale in the provision of public goods, which can be expanded under a home rule charter. Municipalities experiencing rapid growth may look to a home rule charter for flexibility to accommodate changing needs. Finally, because home rule charters allow for additional control over the establishment and

operation of public utilities, we expect home rule charters to be utilized by municipalities which heavily invest in infrastructure. Size, growth and infrastructure investment are the three core characteristics of probable home rule municipalities. Other factors possibly contributing to home rule adoption include the degree of homogeneity within a municipality, the professionalization of management, the demand for modernization, and the pursuit of more efficient local governments.

Municipalities with more internal homogeneity are characterized by populations having similar race or nativity or being of the same political party. Theoretically, the degree of homogeneity within a municipality has an ambiguous effect. Models of political participation predict that homogeneous governments might be more likely to adopt a home rule charter. Alternatively, collective choice problems may lead heterogeneous communities to adopt home rule charters in order to place more stringent controls on the municipal governments so as to constrain the “tyranny of the majority”.

Alesina and La Ferrara (2000) predict greater political participation in areas that are more homogeneous with respect to either race or income. Greater political participation in a homogeneous community often results in policy choices which reinforce and provide stability for the preferences of the homogeneous group.

Alternatively, heterogeneous communities may be more likely to seek home rule. Buchanan and Tullock (1962) argue that heterogeneous communities seek to impose restrictive collective decision-making rules. For example, home rule charters allowed municipalities to impose more stringent tax and debt limitations than the state required. Thus, heterogeneous communities might seek out home rule as a means to guarantee protection from negative collective decisions concerning the provision of public goods.

Additionally, municipalities faced with a heterogeneous population might be less likely to adopt home rule charters in order to remain protected by the state rather than left to their own autonomous control. The point is particularly relevant in the case of home rule during the late 19th and early 20th centuries. As Patton (1969) points out, parts of the old South were hesitant to use home rule charters because home rule would sever the protection local governments received from state government with respect to race relations.

There are alternative views which explain why size, growth, and infrastructure may affect the likelihood of adopting a home rule charter. For one, the growth of the modern business enterprise and the corresponding professionalization of private firm management sparked a parallel movement in the reform of municipal government. As firms reorganized internally for efficiency, leading professionals saw the same opportunity to reform government. The commission and council-manager forms of government were an application of successful structural business reforms, and were often accessible only by the use of a home rule charter. In addition, changing economic outcomes affected the demand for modern goods and services. People not only demanded different consumer goods, but also demanded improved public goods such as water, roads, public transportation, electricity and parks. A municipality

that wants to modernize its public services may choose to pursue a home rule charter in order to expand its governmental functions.

Lastly, a municipality is more likely to pursue home rule if operation under general legislation is not optimal. General legislation is a uniform institution, created by the state legislature as the optimal structure for a representative municipality. If a given municipality is different from its peers within the state, it is unlikely that general legislation is the optimal choice. In order to capture within-state heterogeneity we can compare local-level demographic and municipal government data to the state averages.

The Data

The sample of municipalities covers 27 states, including all states west of the Mississippi River and the Midwestern states.¹¹ This sample includes all twelve states that adopted home rule during the initial stage of the home rule movement.¹² For each municipality in these home rule states, I found the year of its first home rule charter, if it ever chose to adopt one. Complete information on the adoption of home rule charters is not available for Oregon, so municipalities in the state are dropped from the analysis.

The year a municipality adopts a home rule charter is used as an indication of the local preference for the state-level grant of home rule. The analysis only considers data on municipal home rule chartering up to 1935, for two reasons. First, it is important to have a restricted period of time when considering how local preferences induce a state-level decision. By imposing a cutoff, the analysis assumes a municipality in Minnesota that adopted its first home rule charter in the last half of the 20th century did not have a strong preference for home rule in 1896; otherwise, the municipality would have adopted home rule soon after the state grant of home rule. Second, conditions changed dramatically after the New Deal reforms began. The federal government enacted Social Security and other public welfare programs and changed the relationships among the federal, state and local governments. Also, in 1934 the federal government passed the Municipal Debt Adjustment Act. These changes affected the motivation for adoption of local home rule.¹³

I have collected municipal-level data from the Decennial Census of the United States to construct five cross-sectional datasets from the 1890, 1902, 1913, 1922 and 1932 censuses. The Wealth, Debt and Taxation (WDT) series provides municipal-level data on population, debt, assessed valuation and ad

¹¹ I did not collect data on the original colonies and the southern states, as there was no home rule activity in these regions during this time period. In 1922, Pennsylvania adopted a home rule amendment, but the state legislature never enacted the necessary enabling legislation. States in the east and south have very distinct local government histories which make them inappropriate as comparison groups.

¹² Missouri (1875), California (1879), Washington (1889), Minnesota (1896), Oregon (1906), Oklahoma (1907), Michigan (1909), Arizona (1912), Colorado (1912), Nebraska (1912), Ohio (1912), Texas (1912).

¹³ After the 1930s there were significant changes in the form of constitutional provisions. See Hennessey (2009).

valorem taxation.¹⁴ Population data from the WDT tables was supplemented by municipal-level data from the general Census population tables. Since municipal level demographic characteristics are not published for this time period, county-level data was used to measure the native born population (ICPSR 2896) and congressional election results (ICPSR 8611). A measure for political competition was constructed by calculating a county-level Herfindahl-Hirschman Index (HHI) based on the voting shares for three parties (Democratic, Republic, or Other). The HHI accounts for the level of political concentration; an HHI of .33 indicates that the three parties received equal votes in the election, while an HHI of 1 indicates that one party received all of the votes. Thus, counties with a higher HHI are assumed to be more politically homogeneous.

The 1890 and 1902 WDT series endeavored to get information from all municipalities. While the data include information from municipalities of all sizes, extra effort was made by surveyors to obtain data from municipalities with 1,000 people or more. Starting in 1913, the WDT only provides information on municipalities of 2,500 people or more. In order to maintain a consistent sample across time, only municipalities present in all datasets or that enter in some year after 1890 and remain through 1932 are included in the panel data analysis.

Descriptive Statistics

The full sample of municipalities in 1890 differs from the balanced panel sample of municipalities (see Table 1). The balanced panel is, by construction, composed of larger municipalities. On average, the balanced panel cities have higher population growth, more municipal debt and sinking fund assets, and a higher share of native-born citizens. The panel data sample provides additional information through the time series nature of the data, but is not representative of the entire population of municipalities in these states. To adjust for this bias, results for both the cross-sectional data from 1890 and the panel data are presented.¹⁵ In addition, I present statistics for samples for each econometric method employed below: one for probit and linear probability estimation and one for duration estimation. Two states used in the duration analysis cannot be used in the probit and linear probability analysis on the 1890 data because there is no within-state variation in home rule chartering. When using the panel data, some municipalities are excluded from the duration estimation. For instance, if a municipality that adopted a home rule charter in 1914 only has WDT data beginning in 1922, it will not be included in the duration data but can be included in the probit and linear probability analysis. Thus, there are four different samples: 1890 data for probit estimation, 1890 data for duration estimation, panel data for probit estimation, and panel data for duration estimation.

¹⁴ Starting in 1870 and continuing until 1942, governmental data were published as Wealth, Debt, and Taxation. From 1942-1957, instead of a decennial census, annual data was collected on state and local governments. Starting in 1957, the current form of the Census of Governments was taken every five years.

¹⁵ The analysis was also run on all cross-sectional data from 1902, 1913, 1922 and 1932. The 1902 results are similar to the 1890 cross-sectional results, while the 1913, 1922 and 1932 cross-sections are similar to the results using the panel data.

Tables 1 and 2 report summary statistics of municipal and county-level characteristics for each of the four samples described above. Table 1 compares municipalities in states that adopted home rule to municipalities in states that did not. Across the eight variables presented, significant differences in the average characteristics of municipalities across samples occur about half the time. Consider the 1890 sample used in the probit model. The average municipality in home rule states is located in a county that votes more Democratic than the average municipality in states that did not adopt home rule. There is, however, no statistically significant difference in the population growth of municipalities by home rule status. Interestingly, the variance of city characteristics is almost always significantly different between municipalities in home rule states and those in non-home rule states. The higher variance of the municipal characteristics is not always found in home rule states as theoretically predicted. One should keep in mind that looking at characteristics of a single variable abstracts from within-state heterogeneity and fails to account for general differences across the states. Nevertheless, the significant differences in variation of municipal characteristics suggest that heterogeneity issues can be explored more fully in an econometric analysis.

Table 2 includes data only on municipalities in states that adopted home rule. Each dataset is separated into municipalities that adopted home rule and municipalities that chose to remain under general legislation. The differences between the 1890 sample and panel data samples are evident in variables such as the average population and municipal debt per capita. Across all cuts of the data, general legislation municipalities are different from municipalities that adopt home rule charters, as seen in the statistically significant difference in means for most variables. These differences between municipalities that adopted home rule and those that chose to remain under general legislation will identify the municipal-level preference for home rule in the following analysis.

Econometric Method

The empirical strategy models the choice by municipalities to adopt or not adopt a home rule charter. The first stage is estimated using municipalities in states with home rule. We observe municipalities in the estimation sample beginning in the year in which the state adopts home rule, when all municipalities were under general legislation, until the year a municipality adopts a home rule charter.¹⁶ In the second stage, the estimated coefficients from the home rule states are applied to municipalities from all states to predict a latent preference for home rule. Then predictions for municipalities in home rule states are compared with those in non-home rule states to understand how heterogeneity in preferences affects the state-level decision of whether or not to pass home rule legislation. Let me stress at the beginning: all the results are robust to the choice of empirical

¹⁶ The empirical analyses are limited to modeling the single transition to a home rule charter. I do not observe any municipalities that transition back to being a general legislation municipality, although there are cases of this happening in later time periods.

specification and the use of either the cross-sectional or panel data. The consistent results underscore the strong conclusion that home rule states have more heterogeneous municipalities.

Three variables are the crux of the specification: size, growth, and infrastructure. These three factors are important in determining which public goods are provided at the municipal level, and, by extension, how those public goods are provided. These decisions play directly into the adoption of a home rule charter, which allows the municipality more control over its own governance. The effects of size are proxied by population, growth by population growth, and infrastructure by municipal gross debt less sinking fund.¹⁷ Other covariates include the percent of native born citizens in the county, the county political HHI based on congressional elections, the percent of Democratic votes cast in congressional elections, the percent of votes cast for the non-Republican or non-Democratic candidate in congressional elections, and the level of the municipal sinking fund assets.

It is also necessary to control for differences in the within-state variation across municipalities in a state. We can assume that general legislation is set by the state legislature to accommodate the needs of the average municipality within the state. It could be the case that for any municipality, the greater the difference from an average municipality within the state, the less likely general legislation will be the efficient solution for that particular municipality and the more likely it would be to adopt a home rule charter. This comparison is useful for variables with variation across states and within states. For example, we expect that a municipality with rapid population growth is more likely to pursue a home rule charter to meet its changing needs. This level effect will be captured by including population growth as an independent variable. However, if we consider California which has higher population growth than Michigan, a common measure of population growth across all states won't account for the inherent differences within states. Michigan may have heterogeneity of population growth across municipalities within the state, where in California all municipalities might have a relatively high population growth. We want to be able to identify those municipalities in Michigan which have a rate of growth different from the average. The specification issue is addressed by creating new variables based on already included covariates, calculated as $(v - \bar{v})^2$, where \bar{v} is the state mean. This set of measures is included to help control for within state heterogeneity.

State fixed effects control for any shared, omitted, and unobserved variables within a state, specifically variables that induce the adoption of home rule such as innovativeness or propensity for political involvement and legislative change. Strumpf and Oberholzer-Gee (2002) show that state effects are necessary to obtain consistent coefficient estimates. When calculating predictions on the out-of-sample municipalities in non-home rule states, I take the average of the state fixed effects in the estimated model.¹⁸ I assume that states which adopted home rule are not implicitly different from states that didn't

¹⁷ Gross debt is the sum of bonded and floating debt. From this total, the level of sinking fund assets is subtracted. A sinking fund is money set aside by a municipality to repay existing loans when they come due.

¹⁸ This follows the method used by Strumpf and Oberholzer-Gee (2002), p17.

adopt home rule. In my case, the driving force behind the adoption of home rule is the variation across municipalities within the state, not differences across states. However, there could be differences across states that make certain states more likely to adopt any new institution. If this were the case, unobserved state effects will be higher for home rule states (innovators) than they would be for non-home rule states. Thus, by using an average of the higher, home rule state fixed effects, predictions for the latent taste for home rule for municipalities in non home rule states will be biased upwards.

In the panel data specifications, I include a set of time fixed effects. The probability of adopting of adopting home rule may vary for exogenous reasons over time, and time-specific effects allow for that possibility. Additional complexities arise when using time effects in the duration model. These are discussed later.

We can represent a local government's decision to adopt a home rule charter by using the following basic specification:

$$t_{ics}^* = X_{ics}\beta + Z_{cs}\gamma + (V_{is,cs} - \bar{V}_s)^2\phi + S_s\delta + u_{ics} \quad [1]$$

where t_{ics}^* is a latent variable for degree of home rule preference in municipality i , located in county c in state s ; X_{ics} is a vector of characteristics of the municipality (population, population growth, debt, sinking fund), Z_{cs} are the characteristics measured at the county level (political variables, native born population), and S_s are state fixed effects. The variables in V compare each city to the average of all cities in its state and are measured either at the municipal or county level; these variables are chosen because they have a high variance both within and across states.¹⁹ The V terms capture the effect of heterogeneous characteristics within states, while the level effects of the characteristics are controlled for in X_{ics} and Z_{cs} . We do not directly observe the magnitude of the home rule preference, only the choice of whether the local government did in fact take up the home rule charter opportunity when offered. The variable t_{ics} takes on one of two values, indicating whether or not the specific local government enacted a home rule charter by 1935. It is assumed that the decision by each municipality is independent, and is not a reactionary or defensive response to the choices of its peer group.

While there are limitations to this simplified model of home rule adoption, the goal is to get unbiased predictions of the underlying municipal preference for home rule. If some of the assumptions aren't valid, then the model will be imprecisely estimated, and this will affect our ability to interpret these results as motivating factors of the home rule movement. However, the point of the analysis is not to be precise about explaining the adoption of home rule, but to estimate municipal taste for home rule. If the estimates are unbiased, it will still be possible to capture the relative heterogeneity of preferences within and across states.

¹⁹ The three variables that I choose to include for this within-state measure of variance are population growth, percent native born, and gross debt less sinking fund per capita.

Probit and Linear Probability Estimates

Table 3 presents estimates of Equation [1] using probit and linear probability models on both the cross section of 1890 data and the balanced panel dataset, without state or region fixed effects, with state fixed effects, and with region effects. Results without state fixed effects and with region effects, while potentially biased, are included to support the overall results we see in the regressions with state fixed effects. The preferred probit model, shown in columns (2) and (8), confirms that three important factors in predicting the adoption of a home rule charter are population, population growth, and gross debt less sinking fund per capita. The *a priori* predictions of these variables are supported; all positively affect the probability of adopting a home rule charter.

The magnitude of the coefficients suggests economically important effects. The coefficients for the probit model are the marginal effects evaluated at the mean. The results in column (2) indicate that a one standard deviation increase in the per capita gross debt less sinking fund for a municipality with a current level of \$7.04 per capita increases the probability of adopting a home rule charter by 6.22%.

The linear probability model suffers from a heteroscedastic error term that depends on the estimated coefficients; in addition, the model doesn't necessarily yield predictions that are probabilities, i.e., are in the range [0,1]. Nonetheless, the linear probability results are still unbiased and can be compared to the probit model results. The results of the linear probability model are shown in columns (4)-(6) and (10)-(12), and confirm the patterns shown in the probit analysis. Like the probit results, the coefficients are economically meaningful and statistically significant. For example, when running the model on the 1890 data, a one standard deviation increase in the per capita gross debt less sinking fund per capita increases the probability of adopting a home rule charter by 4.7%.

Individually, variables other than population, population growth and gross debt less sinking fund per capita are not robustly significant across the specifications. They are, however, jointly significant. Tests of joint significance are conducted for the group of political variables and, separately, for the group of variables that measure the difference between the municipality and the average municipality in its state. The null hypothesis that these groups of variables have coefficients equal to zero is almost always rejected at the 95% level. The one exception is the group of political variables in the linear probability model run on the 1890 data, for which the significance level of rejecting the null hypothesis is 93%.

Duration Estimates

Instead of representing the local level choice for home rule using a binary indicator of whether or not the municipality adopted a home rule charter anytime before 1935, we can use information on when the municipality passed such a charter. Utilizing the duration aspect of the data, t_i (time until passing a home rule charter), is advantageous for two reasons. First, it incorporates the speed of adoption into the intensity of preference for home rule. Second, it allows us to deal with censored observations, those municipalities that didn't pass a home rule before 1935 but may do so sometime in the future.

We can write the likelihood function as

$$L = \prod_{i=1}^n f(t_i, \theta) \quad [2]$$

which describes the joint probability of the distribution of the sample as a function of the individual duration lengths, t_i , and a set of parameters θ . The basic likelihood function can be rewritten as

$$\ln L = \sum_{i=1}^n d_i \ln f(t_i, \theta) + \sum_{i=1}^n (1 - d_i) \ln S(t_i, \theta) \quad [3]$$

to account for censored observations, where $d_i = 1$ indicates an uncensored spell. Here, $f(t, \theta)$ is the density function which is the product of the hazard function, $\lambda(t, \theta)$, and the survivor function, $S(t, \theta)$.

Parametric models vary based on the implied shape of the hazard function. The most commonly used distributions for adoption times are the Weibull and the exponential distributions.²⁰ The exponential distribution results in a constant hazard over time, where the Weibull allows for either a monotonically increasing or decreasing hazard.²¹ We might expect that the probability that a municipality adopts home rule, given that it hasn't yet done so, decreases as time goes on. The Weibull allows for a decreasing hazard rate. The use of the exponential or Weibull distribution results in a proportional hazard model when explanatory variables are introduced. The proportional hazard model is defined by a hazard function which can be separated into a baseline hazard, λ_0 , that is shared by all municipalities and a factor ϕ that proportionally incorporates explanatory variables that do not depend on duration, but which can vary over time.

$$\lambda(t, x, \beta, \lambda_0) = \phi(x, \beta) \lambda_0(t) \quad [4]$$

The vector of x 's in the duration model are the same as those used in the probit and linear probability estimations.

A limitation of the parametric duration model is that it implies a particular shape of the hazard function and imposes a specific relationship between the covariates and the hazard function. An incorrect distribution of the hazard function would result in biased results. A graph of the non-parametric smoothed hazard functions based on the Nelson-Aalen cumulative hazard function reveals a non-monotonic raw hazard. However, a log-rank test of the equality of survivor functions across states strongly rejects the null hypothesis that they are the same. Thus, while the non-monotonic raw hazard calls into question the choice of the Weibull distribution, it appears the introduction of covariates controls for aspects inducing the non-monotonicity and alleviates concerns about the use of the Weibull distribution.

²⁰ Temple (1996) p 1009, Greene (2003) p794.

²¹ The log-normal distribution allows for a bell shaped hazard function; the log-logistic, in addition to the bell-shape, also allows for a strictly decreasing hazard function. The Gompertz distribution allows for a monotonically decreasing hazard function. I have inspected the baseline hazard function (without covariates) for each distributional form. All appear to estimate a decreasing baseline hazard, reinforcing my initial choice of the Weibull distribution. The estimated coefficients using the Weibull distribution are robust to the alternative specifications of distributional form. As an additional check, the shape parameter in the log-logistic and log-normal models is not significantly different from 1, indicating the absence of an underlying bell-shaped hazard function.

Table 4 reports estimates, assuming the Weibull distribution²², of the time conditional probability of adopting a home rule charter once it is made available to a municipality. The reported estimates are hazard ratios. If the hazard ratio is greater than one, then the covariate has a positive effect on the probability of the municipality adopting a home rule charter, and if it is less than one then increases in the variable have a negative effect on the adoption of a home rule charter.

The results offer support for the hypothesis that municipal-level characteristics are related to the propensity to adopt a home rule charter. Consistent patterns across samples and regressions include the positive and significant effect of the crucial variables -- population, population growth, and gross debt less sinking fund per capita-- on the probability of adopting home rule. Similar to the probit and linear probability results, the duration results suggest it is important to include variables which compare a municipality to the average municipality in its state, as well as the set of political variables. The variables in these groups are often not individually significant, but are jointly significant at the 1% level and, thus, are important controls.

Columns (1) and (4) omit state and region fixed effects, columns (2) and (5) include state fixed effects, and columns (3) and (6) include region effects. The argument for focusing on the specification with state fixed effects remains valid for the duration model, but the results are qualitatively the same across specifications. The use of time dummy variables in the duration model allows for the flexibility of a piecewise hazard rate, where the baseline hazard rate can change over time. *A priori*, it is more appropriate to model the decision of to adopt a home rule charter as being independent of historical time. A version of the duration model that includes these time dummy variables is presented in column (7). The estimates, while less significant, reflect the same patterns shown previously.

I have also run a semi-parametric Cox proportional hazard model to check the robustness of my parametric model results. In the semi-parametric model, the restrictions are only on the functional form of the covariates, not the distribution of failure times.²³ The concern is the presence of a large number of censored data observations. The parametric form imposes a form on the distribution of failure times after the last observed time period, in this case 1935. Non-parametric models (including the Cox model) do not make assumptions about the form of the hazard for the censored observations. This is a concern when the hazard is estimated on a small number of known “failures” and results in a poorly representative hazard. What we are most interested in is the best prediction of the hazard, not necessarily the best estimates of the covariates. However, the covariate coefficients in the Cox model are very similar to those from the

²² Estimates of p , the duration dependence parameter, are always significantly different than 1. This rejects the use of the exponential distribution in favor of the Weibull distribution. Using the 1890 data, there is a significant negative duration dependence, while the panel data yields a positive duration dependence after controlling for the covariates. This is likely due to the non-random sample resulting in only large municipalities in the panel dataset.

²³ Some researchers hesitate to use the semi-parametric model when there are tied ending times, an issue I have in my data as many municipalities adopt a home rule charter in the same year. Stata utilizes the exact partial method in handling ties. However, the method can produce incorrect calculations when risk pools are large and there are many ties.

parametric models. The absence of changes to the fundamental results eases concerns about the appropriateness of the parametric model assumptions.

Comparing Municipalities in Home Rule and Non-Home Rule States

The central hypothesis is that states with a higher variance in municipal-level taste for home rule and states where municipalities have a strong taste for home rule are more likely to adopt home rule. Table 5 summarizes the evidence on the predictions drawn from the econometric estimates. The taste for home rule is estimated using the coefficient estimates from the specification that includes state fixed effects. The evidence suggests: (1) home rule states show greater variance in the predicted municipal preferences and (2) home rule states have stronger preferences for home rule. The variance of municipal preferences in home rule states is always greater than the variance in non-home rule states. The strength of home rule preference is always higher for the municipalities in home rule states. The choice of econometric model or the use of cross-sectional or panel data makes no difference. Across all specifications, municipalities in home rule states have more heterogeneous tastes for home rule when compared to municipalities in states that did not adopt home rule.

At a more detailed level, Figures 1-3 present pairs of graphs for each econometric estimator. The graphs plot the kernel density distributions of the municipal-level predicted values for home rule states and non-home rule states for various specifications. Figure 1 shows the distributions of predicted probabilities of adopting a home rule charter implied by the probit estimates. The comparison reveals two things. First, the distribution of municipalities in home rule states has greater weight on the right hand side of the probability distribution, showing that there are more municipalities in home rule states with a strong preference for home rule. Municipalities in non-home rule states are more concentrated near a value of .1, indicating that many municipalities in these states do not have a strong preference for home rule. Second, municipalities in home rule states have greater variance in their predicted probabilities.

The graphs in Figure 2 present the distribution of predicted probabilities implied by linear probability models. While the range of predicted probabilities is no longer restricted to the interval [0,1], the distributions reinforce the probit model results in Figure 1. Figure 3 uses the hazard model estimates to predict the conditional survival function for each municipality. The value of one minus the predicted survival function yields the probability that a municipality adopts a home rule charter before 1935. The conclusion remains unchanged; again, we see a greater strength of preference and higher variance of preference in home rule states relative to non-home rule states.

Conclusion

Home rule was an integral institution in the municipal reform movement of the late nineteenth and early twentieth centuries. States granted home rule so that municipalities had the option of self-chartering and the ability to independently determine their desired structure and functions. This paper examines home rule from a new perspective. Fiscal federalism theory predicts that a state grants home

rule when heterogeneity across municipalities cannot be accommodated under uniform, general legislation.

The results in this paper confirm the hypothesis that states with more heterogeneous municipal-level preference for home rule were more likely to incorporate home rule in their constitutions. A unique municipal-level dataset is used to generate a latent preference for home rule using probit, linear probability and duration estimation. Predicted municipal-level preferences are compared across states; they show that states that adopted constitutional home rule had stronger and more heterogeneous preferences. While there are many factors in a state's decision of whether or not to adopt a home rule charter, the evidence presented in this paper consistently suggests that municipal preferences within a state played an important role in the decision. This paper provides an empirical explanation of policy decentralization and highlights the importance of considering both within state and across state heterogeneity in the endogenous determination of institutions.

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Table 1: Summary Statistics for Municipalities in All States

1890 Data

Variable	Probit			Duration		
	Home Rule States	Non-Home Rule States	Significant Difference in Means/Variance	Home Rule States	Non-Home Rule States	Significant Difference in Means/Variance
Political HHI	0.49 (0.115)	0.50 (0.105)	** (***)	0.49 (0.111)	0.50 (0.105)	** (*)
% Democrat Votes	45.42 (20.21)	43.71 (21.93)	* (***)	46.90 (19.48)	43.71 (21.93)	*** (***)
% Other Votes	9.93 (14.51)	11.00 (19.71)	*** (***)	8.34 (13.78)	11.00 (19.71)	*** (***)
Population (in thousands)	5.09 (20.49)	3.98 (30.17)	*** (***)	5.30 (23.56)	3.98 (30.17)	*** (***)
Population Growth	0.26 (0.47)	0.29 (1.22)	*** (***)	0.25 (0.46)	0.29 (1.22)	*** (***)
Gross Debt Less Sinking Fund (per capita)	7.04 (15.55)	6.71 (14.77)	(*)	6.39 (14.53)	6.71 (14.77)	
Sinking Fund (per capita)	0.26 (1.96)	0.12 (0.48)	** (***)	0.24 (1.81)	0.12 (0.48)	** (***)
% Native born	82.27 (12.79)	84.41 (11.44)	*** (***)	83.95 (12.74)	84.41 (11.44)	*** (***)
Number of Municipalities	925	1264		1102	1264	

Panel Data

Variable	Probit			Duration		
	Home Rule States	Non-Home Rule States	Significant Difference in Means/Variance	Home Rule States	Non-Home Rule States	Significant Difference in Means/Variance
Political HHI	0.53 (0.151)	0.51 (0.129)	** (***)	0.53 (0.152)	0.51 (0.129)	** (***)
% Democrat Votes	44.03 (22.7)	44.26 (17.25)	*** (***)	43.96 (22.7)	44.26 (17.25)	*** (***)
% Other Votes	15.37 (19.64)	8.94 (6.95)	*** (***)	15.16 (20.34)	8.94 (6.95)	*** (***)
Population (in thousands)	14.06 (41.18)	15.02 (93.05)	*** (***)	12.39 (36.62)	15.02 (93.05)	*** (***)
Population Growth	0.53 (1.12)	0.37 (0.61)	*** (***)	0.59 (1.39)	0.37 (0.61)	*** (***)
Gross Debt Less Sinking Fund (per capita)	21.59 (22.46)	12.46 (11.79)	*** (***)	21.96 (29.41)	12.46 (11.79)	*** (***)
Sinking Fund (per capita)	0.93 (2.19)	0.27 (0.55)	*** (***)	1.00 (3.28)	0.27 (0.55)	*** (***)
% Native born	90.50 (10.06)	89.96 (7.92)	*** (***)	89.33 (11.26)	89.96 (7.92)	*** (***)
Number of Municipalities	618	494		589	494	

Notes:

Standard deviations are in parentheses

***, **, * denotes significance at the 1 percent, 5 percent, and 10 percent level, respectively.

Panel data statistics are averaged across municipalities

Home rule states in 1890 analysis are California, Colorado, Michigan, Minnesota, Nebraska, Ohio and Texas.

Home rule states in panel data analysis are Arizona, California, Colorado, Michigan, Minnesota, Missouri, Nebraska, Ohio, Oklahoma, Texas and Washington.

Non-Home rule states are Arkansas, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Montana, Nevada, New Mexico, North Dakota, South Dakota, Utah, Wisconsin, and Wyoming.

Table 2: Summary Statistics for Municipalities in Home Rule States

1890 Data

Variable	Probit			Duration		
	Home Rule Municipality	General Legislation Municipality	Significant Difference	Home Rule Municipality	General Legislation Municipality	Significant Difference
Political HHI	0.52 (0.15)	0.48 (0.1)	*** (***)	0.52 (0.15)	0.48 (0.1)	*** (***)
% Democrat Votes	51.62 (22.03)	43.32 (19.12)	*** (***)	51.67 (21.85)	45.58 (18.56)	*** (***)
% Other Votes	9.35 (13.99)	10.12 (14.68)		9.12 (13.89)	8.12 (13.75)	
Population (in thousands)	14.24 (39.14)	1.99 (2.63)	*** (***)	16.73 (48.51)	2.11 (3.13)	*** (***)
Population Growth	0.39 (0.44)	0.21 (0.48)	*** (***)	0.40 (0.44)	0.21 (0.46)	*** (***)
Gross Debt Less Sinking Fund (per capita)	8.34 (12.28)	6.59 (16.5)	* (***)	8.49 (12.39)	5.81 (15.03)	*** (***)
Sinking Fund (per capita)	0.64 (3.73)	0.13 (0.64)	*** (***)	0.64 (3.68)	0.12 (0.6)	*** (***)
% Native born	78.19 (14.12)	83.65 (12)	*** (***)	78.21 (14.04)	85.55 (11.87)	*** (***)
Number of Municipalities	234	691		240	862	

Panel Data

Variable	Probit			Duration		
	Home Rule Municipality	General Legislation Municipality	Significant Difference	Home Rule Municipality	General Legislation Municipality	Significant Difference
Political HHI	0.53 (0.15)	0.49 (0.14)	*** (*)	0.53 (0.15)	0.49 (0.14)	*** (*)
% Democrat Votes	49.08 (23.77)	37.25 (17.18)	*** (***)	49.49 (23.86)	37.26 (17.19)	*** (***)
% Other Votes	12.48 (10.33)	18.73 (24.84)	** (***)	11.65 (11.64)	18.73 (24.85)	*** (***)
Population (in thousands)	23.76 (59.8)	7.28 (9.01)	*** (***)	20.90 (54.93)	7.29 (9.01)	*** (***)
Population Growth	0.68 (1.14)	0.41 (1.26)	** (***)	0.83 (1.7)	0.41 (1.27)	*** (***)
Gross Debt Less Sinking Fund (per capita)	27.92 (28.14)	19.08 (15.12)	*** (***)	29.46 (40.82)	19.18 (15.28)	*** (***)
Sinking Fund (per capita)	1.46 (3.04)	0.48 (0.89)	*** (***)	1.69 (4.87)	0.48 (0.89)	*** (***)
% Native born	86.69 (12.03)	93.13 (7.16)	*** (***)	83.43 (13.42)	93.16 (7.15)	*** (***)
Number of Municipalities	276	231		247	231	

Notes:

Standard deviations are in parentheses

***, **, * denotes significance at the 1 percent, 5 percent, and 10 percent level, respectively.

Panel data statistics are averaged across municipalities

Home rule states in 1890 analysis are California, Colorado, Michigan, Minnesota, Nebraska, Ohio and Texas.

Home rule states in panel data analysis are Arizona, California, Colorado, Michigan, Minnesota, Missouri, Nebraska, Ohio, Oklahoma, Texas and Washington.

Home rule municipalities adopted a home rule charter by 1935.

Table 3: Probit and Linear Probability Estimates

	1890 Data						Panel Data					
	Probit Model (Marginal Effects)			Linear Probability Model			Probit Model (Marginal Effects)			Linear Probability Model		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Population (in thousands)	0.044 (0.007)***	0.044 (0.008)***	0.046 (0.007)***	0.018 (0.002)***	0.019 (0.002)***	0.019 (0.002)***	0.002 (0.000)***	0.002 (0.000)***	0.002 (0.000)***	0.003 (0.001)***	0.003 (0.001)***	0.003 (0.001)***
Population (in thousands) [squared]	-0.0001 (0.00002)***	-0.0001 (0.00002)***	-0.0001 (0.00002)***	-0.00006 (0.000008)***	-0.00006 (0.000008)***	-0.00006 (0.000008)***	-0.000002 (0.0000008)**	-0.000002 (0.0000008)**	-0.000002 (0.0000009)**	-0.000004 (0.000002)**	-0.000004 (0.000002)**	-0.000004 (0.000002)**
Population growth	0.271 (0.048)***	0.170 (0.043)***	0.247 (0.048)***	0.212 (0.039)***	0.156 (0.039)***	0.199 (0.039)***	0.058 (0.013)***	0.033 (0.011)***	0.044 (0.014)***	0.013 (0.012)	-0.006 (0.011)	0.002 (0.011)
Different Political Party from State	-0.114 (0.036)***	-0.035 (0.032)	-0.052 (0.041)	-0.105 (0.029)***	-0.056 (0.029)*	-0.053 (0.030)*	-0.015 (0.019)	-0.010 (0.018)	-0.002 (0.021)	-0.032 (0.027)	-0.022 (0.027)	-0.008 (0.027)
Political HHI	0.019 (0.177)	-0.228 (0.185)	-0.346 (0.201)*	0.175 (0.147)	-0.004 (0.199)	-0.223 (0.195)	0.313 (0.072)***	0.052 (0.061)	0.245 (0.068)***	0.507 (0.101)***	0.143 (0.124)	0.369 (0.110)***
% Democrat Votes	0.007 (0.001)***	0.004 (0.002)**	0.004 (0.001)***	0.005 (0.001)***	0.002 (0.001)	0.003 (0.001)***	0.000 (0.000)	0.000 (0.001)	-0.001 (0.001)**	-0.000 (0.001)	-0.001 (0.001)	-0.002 (0.001)**
% Other Votes	0.006 (0.001)***	0.005 (0.002)***	0.004 (0.002)***	0.004 (0.001)***	0.002 (0.001)**	0.002 (0.001)**	-0.002 (0.001)***	-0.002 (0.001)***	-0.003 (0.001)***	-0.003 (0.001)***	-0.003 (0.001)***	-0.004 (0.001)***
% Native born	-0.886 (0.153)***	0.003 (0.166)	-0.953 (0.163)***	-0.644 (0.121)***	0.011 (0.181)	-0.689 (0.127)***	-0.803 (0.157)***	-0.423 (0.118)***	-0.806 (0.155)***	-0.859 (0.144)***	-0.396 (0.154)**	-0.858 (0.141)***
Gross Debt Less Sinking Fund (per capita)	0.002 (0.002)	0.004 (0.002)**	0.001 (0.002)	0.003 (0.001)**	0.003 (0.001)**	0.001 (0.001)	0.001 (0.001)**	0.001 (0.000)**	0.001 (0.001)	0.001 (0.001)*	0.001 (0.001)*	0.001 (0.001)
Sinking Fund (per capita)	0.016 (0.017)	0.004 (0.014)	0.006 (0.017)	0.006 (0.003)*	0.001 (0.003)	0.004 (0.003)	-0.007 (0.004)*	-0.004 (0.003)	-0.006 (0.004)	-0.011 (0.004)***	-0.010 (0.004)**	-0.011 (0.004)***
Population growth compared to state average [squared]	-0.140 (0.035)***	-0.070 (0.028)**	-0.126 (0.034)***	-0.086 (0.017)***	-0.058 (0.016)***	-0.086 (0.017)***	-0.014 (0.004)***	-0.011 (0.003)***	-0.012 (0.004)***	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)
% Native compared to state average [squared]	-0.689 (1.155)	0.194 (1.036)	-0.831 (1.223)	0.354 (0.899)	1.001 (1.038)	0.146 (0.918)	-4.776 (1.218)***	-2.499 (0.928)***	-4.247 (1.140)***	-4.148 (1.016)***	-2.827 (0.795)***	-4.162 (0.808)***
Gross Debt Less Sinking Fund (per capita) compared to state average [squared]	-0.00002 (0.00006)	-0.00006 (0.00004)	-0.00003 (0.00005)	-0.00001 (0.000004)***	-0.00001 (0.000004)***	-0.00006 (0.000004)	-0.00002 (0.00001)*	-0.00002 (0.00001)*	-0.00002 (0.00001)	-0.000005 (0.000002)**	-0.000003 (0.000002)*	-0.000003 (0.000002)
State Fixed Effects		Y			Y			Y			Y	
Region Effects			Y			Y			Y			Y
Time Effects							Y	Y	Y	Y	Y	Y
Observations	925	925	925	925	925	925	1216	1216	1216	1216	1216	1216

Notes:

Robust standard errors in parentheses; panel data standard errors are clustered by municipality
 ***, **, * denotes significance at the 1 percent, 5 percent, and 10 percent level, respectively.

Marginal effects of the probit estimation are evaluated at the mean of the independent variables.

Sample is all municipalities in home rule states.

Home rule states in 1890 analysis are California, Colorado, Michigan, Minnesota, Nebraska, Ohio and Texas.

Home rule states in panel data analysis are Arizona, California, Colorado, Michigan, Minnesota, Missouri, Nebraska, Ohio, Oklahoma, Texas and Washington.

Table 4: Duration Estimates

	1890 Data			Panel Data			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Population (in thousands)	1.024 (0.010)**	1.027 (0.015)*	1.025 (0.013)**	1.009 (0.005)*	1.011 (0.007)	1.009 (0.005)*	1.010 (0.008)
Population (in thousands) [squared]	0.99994 (0.00005)	0.99993 (0.00007)	0.99994 (0.00006)	0.99998 (0.00002)	0.99998 (0.00002)	0.99998 (0.00002)	.99998 (0.00003)
Population growth	3.811 (0.938)***	2.620 (0.625)***	4.035 (0.995)***	1.474 (0.118)***	1.524 (0.127)***	1.528 (0.128)***	1.432 (0.136)***
Different Political Party from State	0.701 (0.129)*	0.830 (0.151)	0.616 (0.122)**	0.765 (0.138)	0.848 (0.167)	0.924 (0.174)	0.729 (0.156)
Political HHI	2.276 (1.802)	0.178 (0.176)*	3.642 (2.978)	14.364 (6.849)***	1.422 (0.822)	11.270 (5.480)***	0.575 (0.416)
% Democrat Votes	1.029 (0.007)***	1.022 (0.009)**	1.038 (0.008)***	1.025 (0.004)***	1.003 (0.006)	1.011 (0.005)**	1.003 (0.007)
% Other Votes	1.026 (0.007)***	1.024 (0.010)**	1.033 (0.008)***	1.008 (0.004)*	1.001 (0.005)	1.002 (0.004)	1.016 (0.006)**
% Native born	0.029 (0.019)***	0.648 (0.567)	0.097 (0.069)***	0.027 (0.017)***	0.041 (0.034)***	0.016 (0.010)***	0.362 (0.368)
Gross Debt Less Sinking Fund (per capita)	1.027 (0.007)***	1.038 (0.011)***	1.025 (0.008)***	1.010 (0.003)***	1.006 (0.003)**	1.008 (0.002)***	1.008 (0.004)**
Sinking Fund (per capita)	1.056 (0.007)***	1.046 (0.008)***	1.058 (0.008)***	1.026 (0.008)***	1.029 (0.009)***	1.030 (0.008)***	1.027 (0.010)***
Population growth compared to state average [squared]	0.446 (0.116)***	0.579 (0.146)**	0.435 (0.112)***	0.978 (0.006)***	0.971 (0.007)***	0.975 (0.007)***	0.978 (0.008)***
% Native compared to state average [squared]	10.821 (32.924)	324.683 (1,066.132)*	288.878 (923.551)*	0.020 (0.089)	0.000 (0.000)***	0.000 (0.002)**	0.007 (0.033)
Gross Debt Less Sinking Fund (per capita) compared to state average [squared]	0.9999 (0.00003)***	0.9997 (0.0002)	0.9999 (0.00003)***	0.99997 (0.000008)***	0.99998 (0.00001)	0.99997 (0.000008)***	0.99998 (0.00001)*
State Fixed Effects		Y			Y		Y
Region Effects			Y			Y	
Time Effects							Y
Observations	1102	1102	1102	987	987	987	987

Notes:

Robust standard errors in parentheses; panel data standard errors are clustered by municipality

***, **, * denotes significance at the 1 percent, 5 percent, and 10 percent level, respectively.

All specifications assume the Weibull distribution.

Sample is all municipalities in home rule states.

Home rule states in 1890 analysis are California, Colorado, Michigan, Minnesota, Nebraska, Ohio and Texas.

Home rule states in panel data analysis are Arizona, California, Colorado, Michigan, Minnesota, Missouri, Nebraska, Ohio, Oklahoma, Texas and Washington.

Table 5: Comparison of Home Rule and Non-Home Rule Municipalities

		Strength of Home Rule Preference			Variance of Home Rule Preference		
		Home Rule States	Non-Home Rule States		Home Rule States	Non-Home Rule States	
<i>Probit</i>	1890	0.12	0.06	*	0.08	0.04	*
	Panel	0.04	0.01	*	0.03	0.01	*
<i>Linear Probability</i>	1890	0.18	0.12	*	0.06	0.02	*
	Panel	0.18	0.09	*	0.02	0.01	*
<i>Duration</i>	1890	0.12	0.09	*	0.03	0.01	*
	Panel	0.06	0.04	*	0.03	0.01	*

Note:

* Denotes significant difference at 1% level

Panel data predictions are constructed as the average for each municipality.

The strength of home rule preference in the probit model is measured as the sum of all predictions greater than 0.5 divided by the total number of municipalities.

The strength of home rule preference in the linear probability model is measured as the sum of all predictions above the 55th percentile divided by the total number of municipalities. The cutoff is based on the actual number of municipalities adopting home rule by 1935 in the sample.

The preferences in the duration model are calculated as 1 minus the predicted survival probability. The value represents the probability that the municipality adopts a home rule charter by 1935. The strength of home rule preference in the duration model is measured as the sum of all predictions where the probability of adopting a home rule charter is greater than 43 percent. The cutoff is based on the actual number of municipalities adopting home rule by 1935 in the sample.

Figure 1: Distribution of Probit Predictions

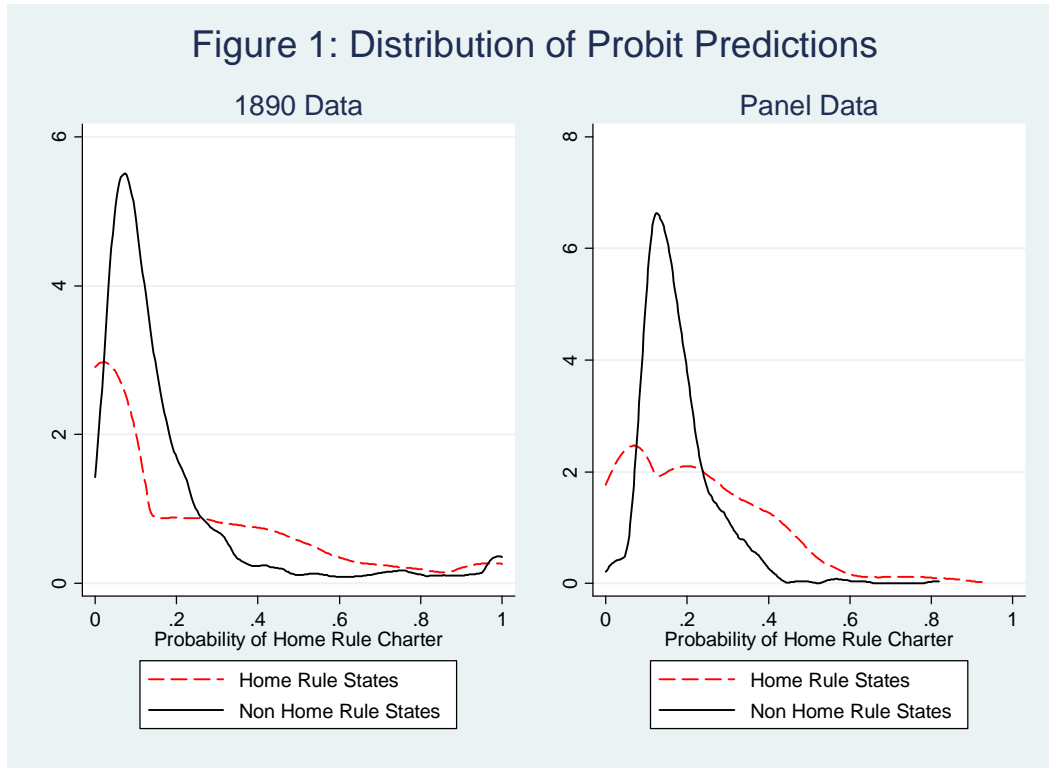


Figure 2: Distribution of Linear Probability Predictions

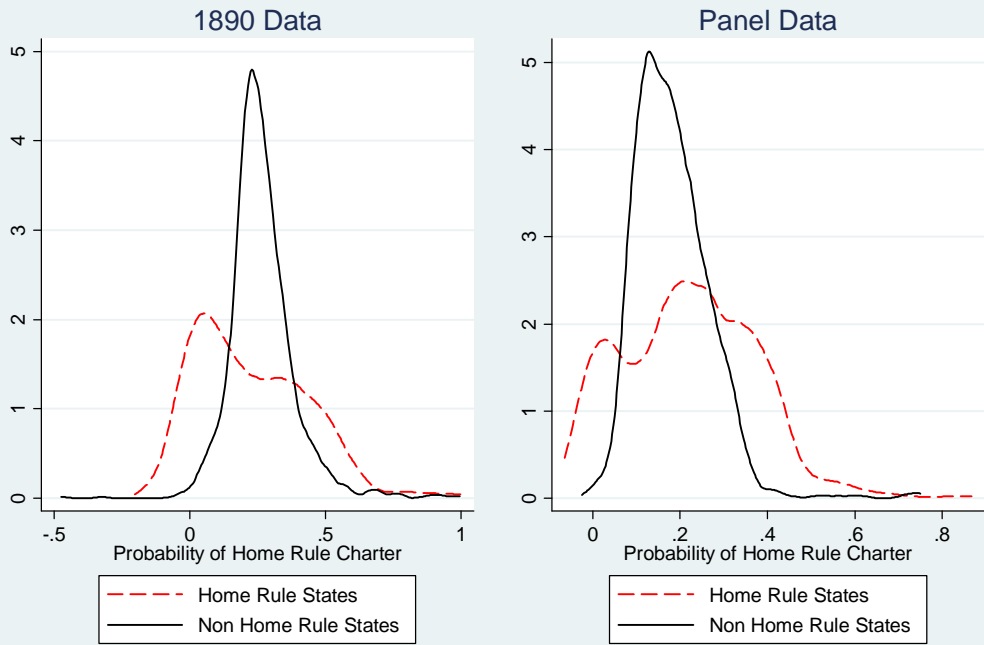


Figure 3: Distribution of Duration Predictions

