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Municipal Reform in the Progressive Era: Spatial Spread and Fiscal Outcomes of the Commission Government

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Abstract

The Galveston-Des Moines Plan for commission government, seen as an important municipal reform during the Progressive Era meant to address corruption and inefficiency in many cities, was pitched by business elites and spread like wildfire in the 1910s. Is there a spatial component to the spread of the adoption of the commission form of government? What are the municipal fiscal outcomes of adoption? This paper shows that there was a spatial spread to its adoption using a lagged state adoption proportion variable. This paper also reveals that promises made by business elites such as increased efficiency and projects to improve infrastructure were not fulfilled under the commission model, with business elites seeming to benefit personally from its adoption. This is seen through a reduction in taxes that target corporate wealth.

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I. Introduction

Municipal governments play a large role in shaping the lives of people in their communities, as they are responsible for many of the factors that determine quality of life. They are often in charge of allocating spending on local public goods, including sanitation, highways, public safety, and education, and also set local tax rates. In the early 20th century, corruption and inefficiency was rampant in local governments, and the widespread mayor-council form of government was seen by some as a structure that enabled this with partisan ward-based elections. The idea of a commission style of government was birthed in Galveston, Texas, and was adopted in 1901 by the city after a hard-fought election. This municipal governance structure was refined in other Texas cities, as well as in Des Moines, Iowa, to include more democratic elements. The idea began to take off across the states in the early 1910s, with this new commission government being pitched as running a city more like a business. It also helped eliminate ward politics—which had historically helped to keep wealthy business interests in check—by guaranteeing each ward its own representative even in poorer areas. This changed the way that cities were run, and likely had many consequences on factors such as fiscal decision-making. My research will address both the spatial spread and municipal fiscal outcomes of the commission form of government.

Specifically, this paper will investigate the spatial spread and municipal fiscal outcomes of the commission government from 1900 to 1930, and will focus on cities with a population of at least 30,000 people in 1929. The main findings of this research are two-fold. The paper finds that there is a spatial spread of the commission model over time. This spatial spread mechanism is a type of "neighborhood effect," where cities located near adopting cities are more likely to adopt and have a commission government than those farther away from adopting cities. Additionally, it is found that the proposed benefits of the commission model, which were pitched by business

elites and included increased efficiency and more capital projects to improve infrastructure, were unfulfilled in cities that adopted it. The business elites who made these promises in an effort to get their cities to adopt the commission model ended up benefiting financially from its adoption.

Existing literature has explored the determinants of municipal reform during the Progressive Era, as well as the spread of municipal reform in general. Hays (1964) studies the politics of reform in municipal government during the Progressive Era, citing the available evidence that the source of support for these reforms came from upper classes. Hays (1964) also discusses how leading business groups in each city and professionals worked together to initiate these reform movements. Cohen (1972) explores the different mechanisms for the spread of municipal reform, narrowing it down to two effects: the neighborhood effect and the hierarchical effect. The neighborhood effect says that the closer a "potential adoption unit" is to an adopter or to the source of an innovation, the greater the probability it will adopt before others further away (Cohen 1972, p. 14). The hierarchical effect means that cities of a higher ranking of a certain criteria (size, status, etc.) are more likely to adopt before those lower on a certain criteria (Cohen 1972, p. 15). This literature thus emphasizes the importance of accounting for both demographics and proximity in determining the spread of commission government adoption.

Knoke (1982) investigates the impact of different spatial and demographic variables on the transition rates from the mayor-council to the commission form of government during the Progressive Era, finding that regional adoption percentage (an indicator of neighborhood diffusion) most strongly impacts these transition rates. Knoke (1982) also finds that distance from the origin of the idea had an impact on the transition rates, with cities further away from the origin less likely to adopt.

The literature on municipal fiscal outcomes is less robust, with the existing literature mostly focusing on the fiscal intentions of the commission government that were promised by business elites, suggesting that business elites pitched the commission form of government as an improvement in efficiency and a way to build up infrastructure through capital projects. Hays (1964, p. 168) discusses the model of the "efficient business enterprise" as the conditions reformers claimed they wanted to recreate, explaining that people saw "efficiency, system, orderliness, budgets, economy, and saving" as being keys to the efforts of reformers who wanted to "remodel municipal government in terms of the great impersonality of corporate enterprise." Hays (1964, p. 166) also adds that reformers felt the city's economic expansion should be the primary goal of municipal government, revealing that reformers hoped to build up the city, likely through infrastructure projects. However, the realization of these stated goals of the reformers has not been tested empirically.

A contribution of this paper is that it empirically investigates the spatial spread of the commission model from a neighborhood effect standpoint, building on the work of Knoke (1982). As mentioned, Knoke (1982) found support for regional adoption percentage as a spatial spread story, but this was not in a panel setting so it did not account for time-invariant factors. This paper takes into account the spread of the commission government as a dynamic process that must be evaluated each period, not just by using transition rates. This is done using a fixed effects model, which addresses many of the bias concerns by utilizing both city and time fixed effects. This paper uses lagged state adoption percentages as opposed to regional adoption percentages as the variable of interest, which allows for a finer analysis of the spatial spread.

This paper will also empirically measure whether business elites delivered on their promises of improved efficiency and increased infrastructure after commission adoption.

Additionally, it will investigate whether business elites benefited from the adoption of the commission form, potentially using an increase in political power to advance their interests. Finally, the spatial spread idea is used to establish an instrumental variable that aims to bypass endogeneity concerns in evaluating the municipal fiscal outcomes of the commission government. The broader contribution of this paper is thus the impact of the commission government on fiscal outcomes, which has not yet been empirically examined. This will ultimately be done through an instrumental variable method.

II. Background

In September of 1900, the town of Galveston, Texas, was leveled by a hurricane, killing over 6,000 of the nearly 40,000 residents and destroying over $17 million dollars of property (Rice 1977, p. 1). Despite being fairly prosperous, Galveston was widely seen as being governed in an inefficient manner, with a Harvard Professor in 1912 saying that prior to 1901 it was "one of the worst-governed urban communities in the whole country," and a journalist claiming that "the city was bankrupt by a board of ward-alderman who had out-Tweeded Tweed," (Rice 1977, p. 3). This is in reference to William "Boss" Tweed, the leader of New York City's corrupt Tammany Hall political machine that dominated the city in the 1870s, buying votes, encouraging judicial corruption, and stealing millions with city contracts (History Editors 2020).

As private relief flooded into the city, the citizens looked towards a solution for rebuilding the city through a different municipal government structure. Although this was not a new sentiment, as organized business interests in Galveston had been working to minimize the effects of ward politics and the old political machine over the prior decade, it provided a platform to initiate real change (Rice 1977, p. 4). A wealthy group of Galveston business elites, known as the

Deep Water Committee, laid out the framework for a municipal government that operated in a more efficient and business-like manner. This committee and its associates dominated banking, corporate directorships, and large property ownership in Galveston, which gave them the influence they needed to eventually push their new commission style government charter through in 1901 by popular vote and without causing too much class division (Rice 1977, p. 13).

This was pitched as a progressive reform intended to address the corruption and inefficiency of municipal governments that plagued many cities throughout the late 1800s, as it would give control of the major municipal departments to different individuals. After great initial success in Galveston in terms of rebuilding the city and supporting the people, Progressive Era municipal reformers began to look to this model as a solution to their city's issues, and the commission government spread rapidly across Texas. Municipal government specialists also took notice, with the National Municipal League's Secretary calling the plan a "remarkable achievement" at their annual meeting in 1906, and general interest publications such as the *Independent*, *Gunton's Magazine*, *Outlook*, *Nation*, *Review of Reviews*, and *Reader* praising its efficiency and the work of the commissioners (Rice 1977, p. 17).

The commission charters differed across cities, but the fundamental features of the plan included centralizing authority and responsibility among a small number of men who are elected from the city at large (not by wards or districts), with each of these men elected to head a single department (Rice 1977, p. xiv). Des Moines, Iowa, where the commission form of government was adopted in 1908, was seen as playing a huge role in shaping the reform to include more democratic elements, and this "Galveston-Des Moines Plan" for commission government began to spread like wildfire in the 1910s, becoming a hot topic for all municipal reformers and citizens across the country.

The mechanism of this spread appears to be one of emulation and learning through "neighborhood effects." Cities in a state or region observed the adoption of the commission government in nearby areas and followed their example. Richard S. Childs, a municipal reform leader of the time period, explained this process of emulation that helped diffuse the commission system, saying in 1914 that "unquestionably, the plan is popular wherever tried, and spread with most rapidity among the nearby cities which have the best opportunity for intimate observation of its operation" (Rice 1977, p. xviii). Cities learn about innovations from each other, and this is seen in Houston becoming the second city to adopt the commission model.

Houston and Galveston had been rival cities in competition for commercial leadership in Texas for quite some time, but by 1900, Houston had become the larger and more prosperous city (Rice 1977, p. 19). Houston officials observed the newfound success of nearby Galveston under the commission model and decided it was in their best interest to adopt it as well. Proximity is clearly important in the diffusion of this idea, as other cities in Texas next began to take notice, with newspapers in many Texas cities reporting on the outstanding results of the new government in Galveston (Rice 1977, p. 25). Dozens of municipal officials across Texas visited these two original commission cities to investigate and report back, including from Dallas and Fort Worth which were cities that adopted soon after (Rice 1977, p. 25). This spatial spread through learning is thus supported through historical accounts.

Galveston was the "poster child" for this commission form of government, improving the efficiency of the city and building up its infrastructure after the hurricane. This led to business elites in other cities pitching the commission plan as a way to improve efficiency and build up infrastructure in their own cities. However, this commission adoption was not seen by all as a more democratic and efficient way to run a city supported by people of all socioeconomic classes.

It was instead viewed by some as a power move by business elites to strengthen their political status and influence. Many historians in the 1960s, such as Gabriel Kolko, Robert Weibe, James Weinstein, Samuel P. Hays, and Melvin G. Holli asserted that "some of the so-called reforms of the progressive period were often products of action by the new elites seeking to protect their wealth and social standing" (Bernard and Rice 1975, p. 151).

Hays (1964) delves into this contrast between the "ideology of extension of political control and the practice of its concentration," describing municipal reform in the early 20th century as a "paradox" (Hays 1964, p. 167). Reformers claimed that the movement rested on "a wave of popular demand," calling their gatherings of strictly business and professional elites "mass meetings" and emphasizing their "ideology of a popular upheaval against a select few" (Hays 1964, p. 167). Hays (1964) argues that "they were in practice shaping the structure of municipal government so that political power would no longer be broadly distributed," with it becoming "more centralized in the hands of a relatively small segment of the population" (Hays 1964, p. 167). Municipal reformers added devices such as initiative, referendum, and recall to municipal charters in an attempt to gain popular support, but used tactics such as requiring a high (and often infeasible) percentage of voters to sign petitions to utilize these devices, making them effectively harmless to the elites' power (Hays 1964, p. 168).[1]

The literature is mixed on whether efficiency was a goal of the new commission government. Bruere (1912), the comptroller of New York from 1906 to 1909, discusses the way that the commission government lends itself to promoting efficiency. Bruere (1912) argues that the incorporation of direct primaries and nonpartisan elections with the commission plan gives a

[1] Initiative is a process that allows citizens to bypass their legislators by putting proposed statutes on the ballot with enough petition signatures (NCSL 2022). Referendum is a process also triggered by popular petition that allows voters to repeal or approve an act of the legislature by vote (NCSL 2022). Recall is an instrument citizens can use to demand through a petition the vote of the electorate on whether a public office holder should be removed from office before the end of their term (Ace Project 2005).

simpler organizational form that allows a city to "demonstrate efficiency without the tremendous handicap of boss-controlled bipartisan politics" (Bruere 1912, p. ix).[2] Hays (1964) has a more negative view of the intentions of the reform, claiming that the goal and use of the commission government was "to destroy the political institutions of the lower and middle classes" and the political power with which they were associated (Hays 1964, p. 168). Lynette Wrenn expanded on this negative view of the commission government, claiming that control of government was seized by an "oligarchy" made up of the city's economic elites who ignored the needs of minorities and the underprivileged (Pegram 1999, p. 1626). Wrenn adds that the commissioners, who came from the city's elite ranks, catered to the wealthy with low taxes and policies that directed services to the elites and ignored the masses (Pegram 1999, p. 1626). This suggests that reformers had motives other than increasing efficiency and building up infrastructure in the adoption and implementation of the commission government. I now turn to describing the data and identifying the impact of commission government adoption on municipal fiscal outcomes.

III. Data Description

This study uses data on municipal governance type from the years 1900 to 1930, focusing on whether a city has a commission form of government. No single source provides data for changes in municipal governance form by year during this time frame. Therefore, many sources were used to piece together the history of changes in municipal form for the 247 cities that had over 30,000 residents in 1929.

[2] Direct primaries allow voters to choose who represents their parties, instead of political parties choosing their candidates at political conventions or in closed-door meetings. This made it harder for a few influential people to decide the party's candidate (Ohio History Central). Nonpartisan elections were another way of taking away power from party elites, as candidates for office do not have a political affiliation or party they are representing.

Bradley Rice's *Progressive Cities* book is used as the main source for the history of commission adoption for cities. I also use a variety of other sources to corroborate and add to this information. The U.S. Bureau of the Census (1916) recorded dates of commission adoption through 1915. The International Management Association's *1934 Municipal Year Book* contains the government type for each city in 1934, as well as the year of council-manager adoptions for cities. The Detroit Bureau of Government Research (1931) published a report summarizing a questionnaire sent to cities with a population of over 30,000 residents in 1929, and this contains government type by city as of that year. Galloway (1930) recorded the year of commission abandonment in certain cities, while Bromage (1940) listed council-manager abandonment dates. Some gaps were filled in using the International City Managers' Association's *1921 Municipal Year Book*, Connelly's (2009) Local Geohistory Project (for NJ and PA), Holden's (1916) *The City Manager Plan*, and Upson's (1913) account of Dayton, OH.

An important thing to note regarding the construction of the dataset is that for a year when a city abandoned a form of government and adopted a new one, the new government form is recorded as a city's government type for that year. For example, if a city abandoned the commission form of government at any point in year *t* and adopted the council-manager form of government, the city is marked as having a council-manager form of government for that year *t*.

In order to investigate municipal fiscal outcomes, this municipal governance structure data must be linked to fiscal data. For the financial data, multiple sources were used to construct a complete data set as well. Curran (1979) compiled the *Financial Characteristics of Cities in the United States 1905-1930*, which was done using the U.S. Bureau of the Census' *Statistics of Cities Having a Population over 30,000* for the years 1905-1908, and the U.S. Bureau of the Census' *Financial Statistics of Cities Having a Population over 30,000* for the years 1909-1912,

1915-1919, and 1921-1930. Curran's data was used for the years 1905, 1907-1912, 1915-1918, 1921-1925, and 1927-1930. Due to certain limitations in Curran's dataset, data for this paper was collected directly from the U.S. Bureau of the Census' previously listed reports for the years 1906, 1919, and 1926. The financial data is presented in real terms adjusted for inflation relative to 1982-1984. This was done using the Consumer Price Index compiled by the U.S. Bureau of Labor Statistics, and allows a comparison of averages across years.

Demographic controls are also necessary for conducting this analysis. Population data for cities was collected from the U.S. Bureau of the Census' 1920 and 1930 decennial report, which included population data for the years 1900, 1910, 1920, and 1930. Since there is limited available population data for the years in between, linear interpolations were conducted to fill in the missing population data. This is used to put the financial statistics of cities into per capita terms.

The U.S. Bureau of the Census' decennial reports were also used to collect demographic data on the size of the population that is black, the number that are immigrants, and the number of individuals in different age groups for each city in the years 1900, 1910, 1920, and 1930. This data was used along with the population data to create variables for the proportion of people in each of these demographic groups, and linear interpolations were used to fill in the missing data for these variables.

This demographic data is linked with both the municipal governance and municipal financial data to complete the panel data set, where the unit of observation is the city. This data set excludes cities for which municipal governance data is not available in each of the years investigated, as well as cities that are the only city in their state for spatial spread purposes. This panel data set is used within a fixed effects regression model framework to explore the spatial

spread and municipal financial outcomes of the commission government, which is the focus of the next section.

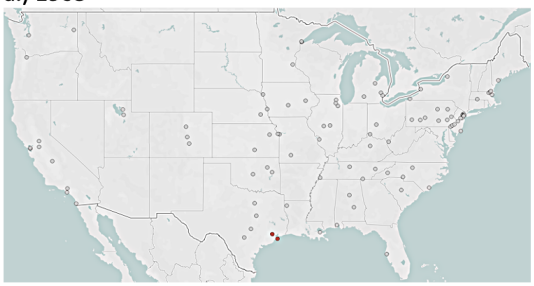
IV. Data Analysis

A. The Spatial Spread of the Commission Government

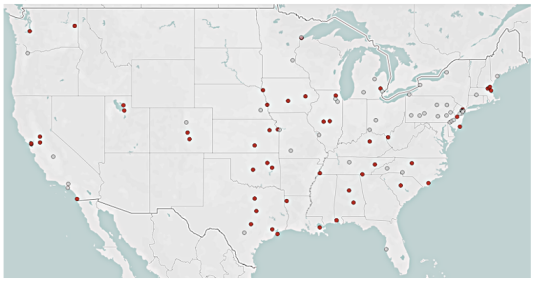
Before analyzing the spatial and temporal spread of the commission form of government, it is helpful to see it visually. Figure 1 shows the cities that had the commission form of government in 1905, 1912, and 1920. It reveals that the commission form of government spread over time, but does not make the spatial component of this spread very clear, in part due to the gaps between the years shown.

Figure 1: Cities with Commission Form of Government

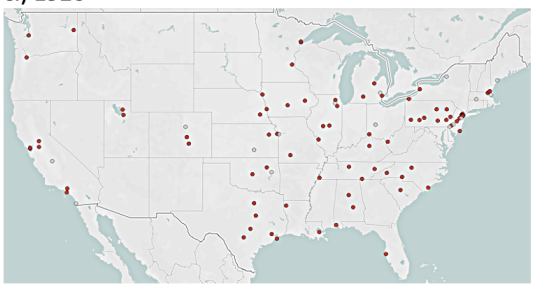
a.) 1905



b.) 1912



c.) 1920



Note: The cities that have the commission government in the given year are represented by red circles, while the other cities in the dataset that did not have the commission form in the given year are represented with white circles.

To empirically test the spatial and temporal spread of the commission government, a fixed effects regression model is used, as shown in equation (1) below:

$$(1)\ Commission_{it} = \beta_1(StatePropCOM_{i(t-1)}) + \beta_2(X_{it}) + City_i + Year_t + u_{it}$$

where *Commission* is a dummy variable for having the commission form of government, and this is equal to 1 if city *i* has a commission governance structure in year *t.* The independent variable in this model, *StatePropCOM*, is the proportion of other cities in the same state as city *i* that have the commission form of government. This calculation does not include city *i* itself, and is lagged one year in the equation. This state proportion of commission government variable represents spatial spread through the mechanisms of learning and emulation. If this variable predicts commission adoption, it suggests that the observation of the commission form of government in nearby cities led to its adoption in a given city. It is lagged by one year to account for the fact that the learning from nearby cities and implementation of the commission form of government in a city was a process that took time. Cities that are the only city in a state are dropped from this analysis since the proportion measure would be less meaningful in these cases.

Included in X are the following demographic controls: population size, proportion of the population that is black, proportion that are immigrants, and proportion of individuals of different age groups in year t in city i. These controls are used to account for factors within cities that may be related to the adoption of the commission form of government. $City_i$ are city fixed effects, which account for unobserved time-invariant factors that differ across cities. Year fixed effects, represented by $Year_t$, account for any changes that are constant across cities but vary over time. The fixed-effects model takes into account that the adoption of the commission government is a dynamic process, and aims to find whether it has a spatial component across time. The results of this regression are shown below in Table 1.

Table 1: Impact of State Proportion with Commission Government on Commission Adoption

VARIABLES	(1) Commission Government	(2) Commission Government
L.State Proportion with Commission Government	0.598***	0.620***
	(0.066)	(0.072)
Constant	0.005	-0.345
	(0.017)	(0.432)
Year Controls	X	X
Demographic Controls		X
Observations	6,540	5,370
R-squared	0.359	0.375
Number of Cities	218	216

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The results suggest that there is some mechanism of learning or emulation that leads to the spatial spread of the commission government. Column 1, which includes city and year fixed effects only, shows that a 10 percentage point increase in the proportion of commission cities in the same state as a given city relates to a 5.98 percentage point increase in the likelihood of that city having a commission government the next year. This is statistically significant at the 1% level.

When including demographic controls in Column 2, and thus accounting for some of the time-variant factors at play, the coefficient for the state proportion variable is still fairly large, positive, and statistically significant at the 1% level. This suggests that a 10 percentage point increase in the proportion of commission-form cities in the same state as a given city relates to a 6.20 percentage point increase in the likelihood of that city having a commission government the next year.

This lagged state proportion variable is an arguably exogenous variable that predicts a city having a commission form of government. The significance and size of the coefficient on this variable is consistent with the literature, which suggests that cities and their municipal governance

structures were influenced by nearby cities having the commission form of government. This is a way of quantifying the spatial spread of the idea. The lagged state proportion variable's exogeneity makes it an instrumental variable candidate when investigating the municipal fiscal outcomes of cities with the adoption of the commission model, which is further discussed in Part C of this section.

B. Municipal Fiscal Outcomes of Commission Adoption: OLS Approach

When evaluating the fiscal outcomes of the adoption of the commission government, it is important to consider the factors that led to its adoption. As discussed, the literature suggests that wealthy individuals and business interests played a large role in the adoption of the commission government across many cities.

The business elites tried to sell the commission idea to the public as an efficiency-promoting form of government that would allow a city to be run more like a business. This was accompanied by promises to build up cities with improved infrastructure. This section will investigate the fiscal outcomes of commission adoption through this lens, evaluating whether the promises of increased efficiency and infrastructure projects came to fruition. It will also look at whether business elites benefited from the switch to the commission government form.

A fixed effects regression model is used to evaluate the impact of the commission form of government on multiple municipal fiscal outcomes. The model is shown in equation (2) below:

$$(2)\ Y_{it} = \beta_1(Commission_{it}) + \beta_2(X_{it}) + City_i + Year_t + u_{it}$$

where Y represents the different municipal fiscal outcomes that are evaluated. This includes total savings (column 1), expenditures (column 2), revenues (column 3), outlay payments (column 4), interest charges (column 5), business taxes (column 6), and special taxes (column 7). These fiscal outcome variables are all in per capita and real terms (adjusted for inflation relative to 1982-84),

and the definitions of these fiscal terms are given in Appendix A. The independent variable, *Commission*, is a dummy variable for whether city *i* has a commission form of government in year *t*.

This model contains city fixed effects, $City_i$, which controls for unobserved time-invariant factors that differ across cities. This includes fixed institutional, political, and geographical factors that affect the municipal finances of cities, all of which are absorbed into these city fixed effects. Additionally, the model has year fixed effects, $Year_t$, which control for time-related trends over time. This captures and absorbs changes common to all cities over time.

The results for this regression model are in Table 2 below. Panel A of Table 2 displays the results of this regression with city and year fixed effects. Panel B of Table 2 includes these year and city fixed effects, as well as demographic controls. These demographic controls, *X,* include population size, proportion of the population that is black, proportion that are immigrants, and proportion of individuals of different age groups in year *t* in city *i*. These account for some of the changes in a city's demographic factors over time that may be related to the adoption of the commission form of government and municipal fiscal outcomes, reducing some of the potential omitted variable bias.

Table 2: Fiscal Outcomes of Commission Government: OLS Approach

VARIABLES	(1) Total Savings	(2) Total Expenditures	(3) Total Revenues	(4) Total Outlays	(5) Interest Charges	(6) Business Taxes	(7) Special Taxes
Panel A:							
Commission Government	-1.533	11.170	5.199	4.438	1.742	-1.512*	-1.127
	(2.852)	(9.154)	(5.768)	(6.321)	(1.314)	(0.806)	(0.807)
Constant	44.053***	218.472***	195.472***	67.052***	21.378***	15.860***	2.801***
	(1.825)	(5.119)	(3.937)	(2.943)	(0.856)	(0.488)	(0.557)
Year Controls	X	X	X	X	X	X	X
Demographic Controls							
Observations	4,159	4,159	4,159	4,159	4,159	3,615	3,615
R-squared	0.300	0.383	0.516	0.112	0.281	0.357	0.120
Number of Cities	216	216	216	216	216	216	216
Panel B:							
Commission Government	-0.040	14.361	6.238	8.082	1.844	-1.268*	-1.232
	(2.990)	(9.013)	(5.831)	(6.052)	(1.318)	(0.764)	(0.826)
Constant	134.735***	485.382***	235.129***	384.988***	14.076	27.678***	-7.884
	(38.165)	(119.790)	(71.828)	(79.003)	(16.066)	(8.403)	(11.549)
Year Controls	X	X	X	X	X	X	X
Demographic Controls	X	X	X	X	X	X	X
Observations	4,028	4,028	4,028	4,028	4,028	3,507	3,507
R-squared	0.320	0.440	0.532	0.163	0.316	0.387	0.125
Number of Cities	215	215	215	215	215	215	215

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

In fiscal terms, the results of a successful efficiency-focused government would be seen in higher total savings—potentially through lower total expenditures and higher total revenue—while the facilitation of more infrastructure projects would be seen in both increased capital outlays and increased debt to finance these projects. With regard to fiscal measures beneficial to business elites, one would expect to see a decrease in taxes that target wealth such as business taxes and special taxes.

The results in Table 2 show few statistically significant impacts of the commission government on municipal fiscal outcomes. The negative estimated coefficient in column 1 suggests that the commission government did not lead to efficiency gains as promised by the business elites. This estimate is close to zero when controlling for demographic factors, and is not statistically significant. The positive coefficients in columns 2 and 3 suggest that there could have been an increase in both expenditures and revenues in commission cities, with larger increases in expenditures potentially blocking these cities from seeing savings increases. There is also no evidence for a statistically significant increase in capital outlays, which suggests that commission governments did not increase spending on infrastructure projects upon adoption.

The only municipal fiscal outcome that the commission government appears to have a statistically significant impact on is business taxes. Panel B of column 6 suggests that a city having the commission government is related to a $1.27 decrease in business taxes per capita when controlling for demographic factors. This result is statistically significant at the 10% level. This decrease in business taxes would financially benefit wealthy business elites, since they owned corporations which bore the brunt of these taxes. It suggests that this could have been a mechanism through which they used the commission government to advance their interests.

However, these OLS coefficients are likely biased, leading to concerns in drawing solid conclusions from this regression. These results could just be correlations between commission adoption and fiscal spending, and it is very possible that reverse causality is at play. This would be the case if certain types of cities, such as those with budget deficits, were more likely to adopt the commission government than other cities. To address this issue, an instrumental variable approach is utilized in the next section.

C. Municipal Fiscal Outcomes of Commission Government: Instrumental Variable Approach

The potential endogeneity concerns can be addressed through the use of an instrumental variable. I use the lagged state proportion of commission cities as such a variable, which was used to explore the spatial spread of the commission form in part A. This instrumental variable plausibly isolates the exogenous part of the variability in the commission government dummy variable. It is likely that the proportion of cities adopting the commission government nearby impacts municipal fiscal outcomes in a city only through the channel of that city's commission adoption decision. As seen in Table 1 in Section IV.A, the lagged state proportion variable is strongly correlated with a city having a commission government, and it is statistically significant at the 1% level. The instrumental variable model is an estimation of equation (2) from Section IV.B using lagged state proportion of commission cities as an instrument for commission adoption. The results of this estimation are shown in Table 3. Panel A again includes city and year fixed effects, while Panel B includes city and year fixed effects and demographic controls.

Table 3: Fiscal Outcome of Commission Government: Instrumental Variable Approach

VARIABLES	(1) Total Savings	(2) Total Expenditures	(3) Total Revenues	(4) Total Outlays	(5) Interest Charges	(6) Business Taxes	(7) Special Taxes
Panel A:							
Commission Government	-15.465**	14.871	8.419	-9.013	8.023***	-3.171***	-7.498***
	(7.431)	(13.215)	(8.529)	(11.216)	(1.399)	(0.859)	(1.271)
Constant	44.074***	218.466***	195.467***	67.073***	21.369***	15.861***	2.807***
	(4.046)	(7.196)	(4.644)	(6.107)	(0.762)	(0.438)	(0.649)
Year Controls	X	X	X	X	X	X	X
Demographic Controls							
Observations	4,159	4,159	4,159	4,159	4,159	3,615	3,615
Number of Cities	216	216	216	216	216	216	216
Panel B:							
Commission Government	-15.951**	24.786**	11.044	-2.209	8.828***	-2.394***	-7.943***
	(7.254)	(11.775)	(8.320)	(9.632)	(1.325)	(0.836)	(1.238)
Constant	127.757***	489.954***	237.237***	380.475***	17.139***	27.249***	-10.436**
	(29.882)	(48.509)	(34.274)	(39.681)	(5.460)	(3.445)	(5.102)
Year Controls	X	X	X	X	X	X	X
Demographic Controls	X	X	X	X	X	X	X
Observations	4,028	4,028	4,028	4,028	4,028	3,507	3,507
Number of Cities	215	215	215	215	215	215	215

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The results in Table 3 match pretty closely with the results in Table 2 in terms of the sign of the coefficients, but vary considerably in the pattern of significance. The coefficients also generally have larger magnitudes with this instrumental variable model.

Column 1 shows that the commission government did not lead to the predicted efficiency gains that were promised by the business elites in selling the idea to the general public, with a decrease in total savings being observed. Panel A suggests that a city having the commission form of government is related to a $15.47 per capita decrease in total savings when controlling for city and year fixed effects. This impact grows to a $15.95 per capita decrease in total savings when including demographic controls. Both of these effects are significant at the 5% level. With the average real total savings of a city being $66.64 per capita, this is a large negative impact. This suggests that not only did the commission government seem to fail to achieve greater efficiency for cities, but its adoption made cities potentially less efficient in terms of balancing the budget. It appears that the commission government contributed to cities running at more of a deficit, despite business elites touting its "business-like" efficiency.

To further explore this decrease in savings that is related to a city having the commission form of government, I now show the impact of this commission form on expenditures and revenues. Total savings is calculated as the total revenues of a city minus its total expenditures (excluding outlay payments). Panel B of columns 2 and 3 suggest that a city having a commission government relates to a $24.79 per capita increase in annual total expenditures and a $11.04 per capita annual increase in total revenues when controlling for demographic factors. This increase in total revenues is not statistically significant, but the increase in total expenditures is significant at the 5% level. This suggests that increases in spending without corresponding increases in revenues are driving the increased budget deficits in cities with the commission government.

In evaluating the second promised benefit of commission adoption—building up cities with improved infrastructure—it is important to examine the impact of a city having a commission government on total outlay payments and interest charges. These outlay payments include investments in fixed assets such as buildings and other infrastructure for public improvement. Column 4 shows that a city having the commission form of government is not related to total outlay payments in a statistically significant way, regardless of the inclusion of demographic controls. The coefficient is negative in both panels, unlike in Table 2, suggesting that there may even be a negative impact of the commission government on capital outlays and thus on infrastructure projects, although the coefficient is quite small. This does not provide much support for the business elites' claims that the commission government would enable improvements in infrastructure with capital projects, as it seems that commission cities did not spend much differently on total outlay payments.

However, Column 5 shows that the commission model has a positive impact on the total interest charges in a city. This is significant at the 1% level, unlike in the OLS fixed-effects model in Table 2, where it was not statistically significant. The commission government is related to a $8.83 per capita increase in annual interest charges when controlling for demographic factors, as seen in Panel B of column 5. The average interest charge for the cities in this dataset is $26.07 per capita, making this a sizable increase. Interest charges are associated with taking on more debt, and this debt is often used to finance capital projects. This financing of capital projects does not seem to be the reason for increased interest charges in this case, however, as there is no statistically significant increase in outlays and the direction of its coefficient in column 4 is negative. Thus, the increase in interest charges could be due to commission cities needing to meet savings shortfalls with borrowing in the market in an effort to shore up short term budget

imbalances. This connects to the decrease in savings seen in column 1, whereby commission cities would need to borrow to finance shortfalls.

Overall, columns 1-5 of Table 3 seems to support the idea that the commission government model failed to achieve the promises made by business elites that were used to gain support for the movement. We also investigate whether the business elites ultimately benefited from the commission form of government, potentially using these unfulfilled promises as a tool to increase popular support for the commission model and seize more political control under its structure. To explore the ways in which business elites could impact municipal finances to serve their self-interests, taxes to check the wealth of the rich are examined.

When considering taxes, there are two types that would likely have been of particular interest to wealthy business elites: business taxes and special taxes. Business taxes are taxes on the activities of businesses, while special taxes are a form of corporate property taxes (see Appendix A for more detailed descriptions). Columns 6 and 7 show that a city that adopted the commission government experienced a statistically significant decrease in both of these types of taxes. Column 7 reveals that there is a strong negative impact of a commission form of government on business taxes. Panel A of column 7 suggests that the commission model is related to a $3.17 decrease per capita in business taxes, and it is statistically significant at the 1% level. When adding in demographic controls in Panel B, this impact falls to a $2.39 per capita decrease in business taxes, which is also statistically significant at the 1% level. Considering the average real business taxes per capita is $11.28, this is a fairly large impact of the commission model on business taxes.

There is an even bigger decrease in special taxes observed for cities with the commission model as seen in Column 7. Panel B of column 7 shows that having a commission government

relates to a $7.94 decrease per capita in special taxes controlling for demographic controls. This is statistically significant at the 1% level. The average real special taxes in a city is $5.26 per capita, making this a massive decrease. However, the standard deviation is $12.43, so this estimate is certainly plausible. This decrease in special taxes would be of benefit financially to wealthy business elites, as these were the owners of corporations who bore the brunt of these taxes. It suggests that this could have been a mechanism through which they used the commission government to advance their interests. The large decreases in both special taxes and business taxes associated with the commission government indicate that business elites were indeed ultimately benefiting from the commission government, likely through their increased political power.

V. Conclusion

This paper investigates both the spatial spread and municipal fiscal outcomes of the commission form of government in large cities from 1900 to 1930. It finds that there is a spatial spread of the commission model over time, which seems to be through the "neighborhood effect" mechanism. Cities located near adopting cities were more likely to adopt and have a commission government than those farther away from adopting cities. It also finds, using an instrumental variable approach, that the commission government did not ultimately fulfill the promises of efficiency and capital spending made by business elites in their effort to push for the spread of the commission government. In fact, the results suggest that efficiency actually worsened in cities with the commission government, with these cities having to meet savings shortfalls by borrowing in debt markets. This is reflected by increases in interest payments, with more borrowing in order to shore up short term budget imbalances rather than fund more capital

projects. Finally, business elites seem to have benefited financially from the commission government model, with a decrease in business taxes and special taxes. Overall, these results suggest that business elites may have used the commission model to benefit themselves rather than meet the needs of the city.

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Appendix A: Municipal Fiscal Outcomes Category Description

Municipal Fiscal Category	Description
Total Savings	Total savings equal total revenue receipts minus total expenditures (excluding total outlay payments) (Curran 1979, Codebook p. 5).
Total Expenditures	The total expenditures of a city are the summation of total expenses, total outlays, total interest charges, and public service enterprise payments (Curran 1979, Codebook p. 5).
Total Revenue	Municipal revenues are the moneys received by or placed to the credit of cities for governmental purposes (U.S. Bureau of Census Financial Characteristics of Cities 1915, p. 30).
Total Outlay Payments	Total outlays are the costs of properties, including land, buildings, and equipment, and public improvements that are permanent in character. These are used by municipalities in the exercise of their municipal functions or in connection with business enterprises (U.S. Bureau of Census Financial Characteristics of Cities 1915, p. 29).
Interest Charges	The interest of a municipality for a given year is that which has accrued or become an actual or enforceable liability of the municipality during the year (U.S. Bureau of Census Financial Characteristics of Cities 1915, p. 28).
Business Taxes	Taxes upon businesses or business activities exacted from persons natural and corporate (1) in proportion to the volume of their business, (2) by reason of the business in which they are engaged, or (3) by reason of some business activity which constitutes a part of their business (U.S. Bureau of Census Financial Characteristics of Cities 1915, p. 33).
Special Taxes	Special taxes are direct taxes levied upon property, which includes all taxes on the property of corporations levied based on the amount of corporate stock or indebtedness. This category includes taxes on investments, choices in actions, bonds and notes for specified periods of time, and on corporate bonds held, as well as all specific taxes upon property by acre. They are described as property taxes of corporations (U.S. Bureau of Census Financial Characteristics of Cities 1911, p. 32).