Disproportionate Effects of Massachusetts Mandates on Municipal Budgets:

A Quantitative Study

By

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DEDICATION

To my family and friends who supported me through the process, I could not have completed this accomplishment without you. To my father: thank God you were a history major; without you I would have never gotten through the discussion boards. But, especially to my Mom, whose late-night editing and continual support made this feat possible. All my grit and determination, all my morals and ethics, came from how my mother taught me to live and work, and for that I am forever grateful.
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ABSTRACT

This study used quantitative methodologies to examine whether there are differences in the fiscal impacts of state mandates in Massachusetts municipalities based on the size of the municipality. Municipalities have the task of allocating resources on a variety of mandates as they balance their fiscal responsibilities. This study focuses on the Massachusetts Public Records Law changes of 2016 and its impact on how municipal clerks manage their operational responsibilities. The Massachusetts Public Records Law requires municipalities to have at least one Records Access Officer. The Public Records Law states that the municipal clerk is one of the Record Access Officers; therefore, this study utilized clerk budget data for understanding the operational responsibilities and, as a result, the fiscal impact on municipal clerks’ departmental budget. Proposition 2 ½, limits the amount of taxes that can be levied by municipalities. The research considered Proposition 2 ½ and its limitations on municipalities to determine whether Massachusetts Public Records law has a more significant impact on smaller municipalities. Using a Difference-in-Differences econometrics technique, the study found that there is no significant difference in the impact of this mandate on small municipalities compared to larger municipalities. However, this study concludes that there is a need to authorize further research by the Massachusetts Legislature with regard to the way the State’s Auditor’s Division of Local Mandates calculates impacts for potential reimbursement by the Commonwealth. There are implicit assumptions that the implementation of state mandates is more fiscally challenging to small municipalities. The intent of the study was to explore the assumption that small municipalities realize a greater fiscal impact, proportionally, from state mandates than do large municipalities.

Key words: mandates, municipal, Difference in Differences, Proposition 2 ½, Massachusetts
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LIST OF ACRONYMS

DID – Difference in Differences

DLS – Massachusetts Department of Revenue Division of Local Services

DLM - Massachusetts Division of Local Mandates

DOR – Massachusetts Department of Revenue

RAO – Records Access Officer
Chapter 1: Introduction to the Study

In the federalist system of government that exists in the United States, a tiered hierarchy of regulation filters down from the federal government to states, and from the states to counties and towns. This hierarchy leaves states with obligations to implement federal policies. Such obligations can become a financial burden on small towns, as the mandates trickle down to municipalities. Municipalities in turn attempt to find various solutions that address their fiscal challenges. These challenges are not always the same in small towns as they are in larger municipalities. For example, discussion of the different management challenges that small towns face took place at the 2018 Fall Conference of the Massachusetts Selectmen’s Association.¹ This conference is geared toward helping Selectmen manage their community’s challenges and, in this case, focused on the specific challenges Selectmen of smaller municipalities face.

There is no one-size-fits-all solution to address the problems that state policies attempt to remedy with the enactment of laws and rules that regulate municipal government bodies. Policy actions should be evaluated in terms of their fiscal impact on municipalities of different sizes.² Although there is a large body of literature available on state mandates, one area of research that has not been previously explored is how the costs of state mandate implementation could have a greater impact on smaller communities.³ An understanding of the fiscal effect of state policy

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² Bruce Wallin & Jeffrey Zabel, Property tax limitations and local fiscal conditions: The impact of Proposition 2½ in Massachusetts, 41 REG. SCL URBAN ECON. 382-393 (2011); The size of the municipality is an important part of this research. This research has been conducted under the premise that the size of the municipality is aligned with their budget, leaving smaller municipalities with fewer resources. Working within the constraints of this premise, the research has explored whether state mandate policies may impact municipalities differently based on their size.
³ This research uses the Small Town Administrators of Massachusetts’ definition of small-towns. Based on this definition, a population of 10,000 is the dividing line used to describe small-towns. A great majority of the municipalities with populations less than 10,000 lie west of Route 495 and on Cape Cod; both areas are outside the Boston metro area.
mandates on different-sized towns in Massachusetts would enable policymakers to develop regulations that may be applicable to towns of various sizes.

In Massachusetts, the issue of unfunded mandates is compounded with the existence of Proposition 2 ½, which was passed by ballot measure in 1980. Proposition 2 ½ is a state regulation that limits the municipal property tax levy to 2 ½ percent of the levy of the previous year. The implementation of Proposition 2 ½ illustrated stark differences in the financial conditions of the various types of communities that make up the Commonwealth. About half of the communities in the Commonwealth have populations above 10,000, the population threshold employed in the present study, while the other half are communities below 10,000.

Background and Context

In Massachusetts, the first public records law was adopted in 1897. While there have been many amendments over time to keep the law current, the first modern overhaul to public records legislation in Massachusetts came in 1973. While the legislature has demonstrated the importance of this type of regulation by continually reaffirming it though the amendment process, the provisions mandated by the state to meet the intent of the legislation may not have an equal impact on municipalities.

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4 Unfunded mandates are those imposed without an associated appropriation to cover the costs of compliance.
7 Murray, supra note 7.
8 Massachusetts has maintained a Public Records Law for over one hundred years, with the legislature updating on this law repeatedly to introduce new mandates. Such repetitive actions by the legislature are a sign of the importance assigned to such actions. Alternatively, this could demonstrate a lack of research in this area and dependence of the legislature on unsubstantiated previous actions. At this point in time, the Division of Local Mandates does not account for the overall size of available resources when calculating the impact of a mandate. Thus, the legislative action and lack of attention to available resources on local level attests to the need for this research.
The issue of unfunded mandates raises questions of both affordability and sovereignty. Legislation in Massachusetts may not adequately address the unique effects of state mandates on small municipalities. The question to be answered by this research is not whether the new provisions of the Public Records Law in Massachusetts are unfunded mandates, but whether the mandates had a disproportionate effect on municipalities with populations less than 10,000 persons. It is common for municipalities of this smaller size to have part-time staff and offices only open a few times a week to meet the needs of their local governments. The possible disproportionate effect of mandates is an important issue to examine in a state that has such a disparity in the size of government jurisdictions, as evidenced by differing staffing levels in Town/City Clerk’s offices. Moreover, the differing financial characteristics of the various size municipal jurisdictions in Massachusetts may make a one-size-fits-all legislative solution impracticable.

Multiple laws affect the even distribution of regulatory mandates. Therefore, an examination of the interaction of various state laws is necessary in order to understand the purpose of this research. In municipal government management, the ability to raise and appropriate taxes is paramount, as it affects the ability of a municipality to pay for the implementation of mandates. The cap on the local tax levy, which is regulated by Proposition 2 1/2, varies in relation to the size of the municipal budget and is often proportionate to the size of

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9 This issue of affordability of multiple mandates begins the discussion of “ability to pay,” which is addressed later in this document. Sovereignty of municipalities from the state is related to the issue of federalism, also discussed later.
10 See supra note 3; the impacts based on the size of a budget may change the impact of a mandate.
11 Welcome to Halifax, MA, http://www.town.halifax.ma.us/Pages/index (last visited Nov 12, 2018); 32 hours a week with a population around 7,000; Town of Ashby, http://www.ashbyma.gov/index.html (last visited Nov 12, 2018); 15 hours a week with a population around 3,000.
12 Municipal Databank (Data Analytics), supra note 5.
13 MASSACHUSETTS PROPOSITION 2 1/2, 59 MGL (1980).
the municipality. The passage of the Massachusetts Local Mandate Law in 1980,\textsuperscript{14} as part of Proposition 2 \(\frac{1}{2}\), prohibits the state from enacting mandates that do not have an accompanying funding mechanism.

As a result, there is an opportunity for research that examines the financial characteristics of small and large municipalities in Massachusetts. More specifically, this research is the examination of the fiscal impact of public records mandates on municipal clerks. Further, it addresses whether those impacts are directly proportionate to the population of a municipality and size of the municipal budget. To examine this question, it is important to understand the background of the laws that affect the issue.

A town’s ability to be sovereign, or to self-regulate, is impacted by state mandates. When the state requires municipalities to implement state policy, this affects not only the issues preempted by those state polices, but also the financial resources available to implement municipal policy. The issue of even distribution—in terms of the effects of legislation on those regulated—is commonly addressed in relation to government, as equity is a desired outcome in the application of regulation in any democratic system.\textsuperscript{15} This is true whether those regulated are municipalities or the residents thereof. Citizens’ voices and the impact of regulation on those voices in a democracy should be equal, by definition. The financial cost of any regulation is a part of its overall impact. Therefore, such regulations should exhibit equity in cost distribution across municipalities of various sizes.

\textsuperscript{14} Massachusetts Local Mandate Law, 29 MGL (1980).

Law and Policy

Several legal constructs contribute to an understanding of the issues surrounding state mandates and municipal sovereignty. The first of these constructs is the different rules municipalities are required to follow in establishing policy. Dillion’s Rule, first asserted by Judge Dillon of Iowa, then upheld in 1907 and 1923 by the US Supreme Court, asserts that “in the absence of state constitutional provisions safeguarding it to them, municipalities have no inherent right of self-government.”16 In 1966, Massachusetts separated from Dillion’s Rule and became a Home Rule state with a Constitutional Amendment; this action was implemented through Home Rule Procedures Act.17 What this meant for Massachusetts was that municipalities were able to exercise their own power or function through the municipal legislative body, as opposed to requiring state legislative action.18 This is significant, as the change impacted the way in which municipalities derive their power, including power over their own financial matters.

Another element that contributes to a municipality’s ability or inability to fund mandates is Massachusetts Proposition 2 ½. Amongst other provisions, this ballot measure created the Division of Local Mandates (DLM), which is responsible for assessing claims by municipalities that state regulations impose new costs and to determine the amount of those costs.19 These costs, or funds to offset these costs, must be tied directly to the mandate. In 1990, the Advisory Commission of Intergovernmental Relations in Washington, DC established that the undesignated increases in state aid do not suffice in offsetting mandates.20 In other words, an

16 Clinton v. Cedar Rapids and the Missouri River Railroad, (1868); Hunter v. City of Pittsburgh, (1907); City of Trenton v. State of New Jersey, (1923).
17 MASSACHUSETTS HOME RULE PROCEDURES ACT, 43B MGL (1966).
18 HOME RULE PROCEDURES ACT, 43B MGL (1966). In the case of small communities, the legislative body is Town Meeting; this gives the power to impose regulations directly to the people being regulated.
19 MANDATES, CASES IN STATE-LOCAL RELATIONS, (1990), http://hdl.handle.net/2027/mdp.39015032932918.
20 Id.
increase in aid is different from funding a mandate, as such funds must be directly tied to the costs imposed by the mandate.

In Massachusetts, the DLM was established to examine if a new or changed law constitutes an unfunded mandate. The Massachusetts DLM, which operates under the State Auditor, responds to requests from municipalities to determine if a state law is an unfunded mandate. While the DLM has performed many Municipal Impact Studies, none have addressed whether the impact of state mandates could disproportionately affect small municipalities.

One mandate that could be used to test the proportionate impact of mandate costs is the 2016 Act to Improve Public Records. This Act contained various provisions to update the regulations dealing with public records management in Massachusetts. While some of these updates only apply to state agencies, the apparent goal of government transparency and ease of access for the public are the same, regardless of what type of jurisdiction the provision applies. Part of the impetus behind the update to the Public Records Law was a report card from the Center of Public Integrity, which gave the Commonwealth overall a D+. One provision in the Act to Improve Public Records that applies to all agencies and municipalities is the requirement

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21 Division of Local Mandates, MASS.GOV, https://www.mass.gov/orgs/division-of-local-mandates (last visited Mar. 5, 2018). The Division of Local Mandates also serves as a resource for municipalities on issues that have an adverse impact on municipal budgets.
to appoint at least one Records Access Officer (RAO). For municipalities, the Clerk is automatically a RAO, along with others who may be appointed by the Chief Executive Officer. The RAO has several responsibilities, including identification of records that are in municipal control, identifying records and providing specific exemptions for those records withheld, and providing suggestions of reasonable modification of the request to improve efficiency and affordability. Since these responsibilities are new to the 2016 revisions to the Public Records Law, municipalities may require additional staff or additional compensation to existing staff, in order to meet this new statutory requirement. These new or additional responsibilities may have a disproportionately adverse financial impact on small municipalities, especially those with populations less than 10,000 persons. To address this issue, the present study examines whether the additional responsibilities cause a need to increase the Clerk’s Department budget—to facilitate increases to the compensation of the Clerk or the staffing levels of the Clerk’s office—in order to meet the standard of the law’s requirements. The impact of mandates on a small Clerk’s office highlights the interaction of state mandates with Massachusetts Proposition 2 ½.

Proposition 2 ½ limits a municipality’s ability to levy taxes to generate income. The law does this by limiting the revenue a municipality can raise and appropriate through property taxation. The levy limit is comprised of the prior year’s levy limit with an additional two and a half percent. New Growth and excluded debt are also added into the levy limit.

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26 Massachusetts Public Records Law, 66 MGL (2016). This is a result of the Selectmen form of government; in Massachusetts, this the form of government is established by Special Act of the legislature. In small towns, the Chief Executive Officer is most often the Board of Selectmen.
27 Albano & Hall, supra note 23.
28 In these small municipalities, the Clerk is often a part-time employee.
29 Massachusetts Proposition 2 1/2, 59 MGL (1980).
30 Massachusetts Proposition 2 1/2, supra note 13.
31 Id.
32 (Prior Year Tax Levy*1.025) + New Growth + Excluded Debt = Current Year Tax Levy
includes new and previously exempt pieces of personal property, new land values from land now taxed as separate parcels, and the increase in assessed valuation over the prior year due to construction activity.\textsuperscript{33}

Excluded Debt, which is exempt from the Proposition 2 ½ limitation, is that debt which the local legislative body has excluded from the property tax levy limit. Types of debt that are excluded include, but are not limited to, municipal capital building or public works projects, land acquisition, and school department/district capital improvements.\textsuperscript{34} Excluded debt must be approved as such by the legislative body. To provide general operational funding for increased costs, Proposition 2 ½ provides an opportunity for overrides up to the levy ceiling.\textsuperscript{35} An override results in a permanent increase in a community’s levy limit, as opposed to the temporary effect of excluded debt. The increase that occurs as the result of an override is part of the levy limit base, which then increases at the rate of two and a half percent each year.\textsuperscript{36} In 2016, only 37% percent of overrides on municipal ballots were successful.\textsuperscript{37}

Some communities have adopted mechanisms to generate revenue outside of the property tax; some have not. In a community that operates as a service center,\textsuperscript{38} there are a few different options for revenue generation. In service centers, the first method of possible revenue

\textsuperscript{33} New Growth, MASS.GOV, https://www.mass.gov/service-details/new-growth (last visited Mar. 13, 2018). Per anecdotal experience, this calculation is often insignificant in rural and small communities. The result of this is a dependence on construction activity and commercial development.

\textsuperscript{34} Approval of excluded debt requires both Town Meeting action and an affirmative vote on an election ballot.

\textsuperscript{35} The levy ceiling is 2.5 percent of the total full and fair cash value of taxable real and personal property in a jurisdiction.


\textsuperscript{37} Overrides and debt exclusions go to voters, MASSACHUSETTS MUNICIPAL ASSOCIATION (MMA), 2017, https://www.mma.org/overrides-and-debt-exclusions-go-to-voters/ (last visited Nov. 29, 2018); Underrides are possible, but rare. The impact of this fact is that most communities must survive within the confines of the revenue Proposition 2 ½ allows.

\textsuperscript{38} Service centers are generally communities that are have commercial areas that serve surrounding primarily residential communities.
generation is to utilize different tax classifications for non-residential and residential uses. In addition, there may be a local meal or lodging tax, as well as the personal property tax revenue generated by business equipment. However, bedroom communities are limited to the primary revenue stream of the property tax levy allowed by law.

While guided by different laws, there is a link between a municipality’s ability to pay and willingness to pay for services by municipalities in Massachusetts. Transparency in government and increasing the public’s knowledge about government are services most municipalities are willing to provide. However, the ability to pay for those services is limited by Proposition 2 ½. Ability to pay is determined by the financial condition of a municipality, whereas willingness to pay is dependent on the values express by the legislative body. In Massachusetts, Proposition 2 ½ limits a municipality’s ability to pay for municipal services by limiting its ability to raise revenue through taxation.

The fiscal impact of the change to the Public Records Law that is the subject of this study, the requirement of having one or more RAO, would primarily affect the budget of the Town/City Clerk’s department. This is because the Clerk is, by statute, a RAO. In communities with populations under 10,000 persons, Clerks’ offices have a wide range of staffing levels. To meet the RAO requirement and to have the RAO meet the mandated provisions of the Public Records Law would be primarily exhibited through an increase in personnel costs.

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40 Bedroom communities are those that have little commercial development and serve primarily as residential areas for neighboring service center communities; many small and/or rural communities are bedroom communities and, therefore, when the cost of unanticipated clerical tasks threatens to raise the budget, small communities have few options.
41 While revenue outside of the property tax supplements the tax revenue, many small communities do not have the luxury of such other sources of local receipts.
Even distribution of the impacts of mandated state regulations on municipal jurisdictions is an objective of the Commonwealth when drafting legislation, as exhibited by Governor Baker’s administration with the Municipal Modernization Act.\textsuperscript{42} When examining whether a law constitutes an unfunded mandate, the DLM examines all municipalities and the total cost of the mandate.\textsuperscript{43} What is not examined is that cost as a function of the total budget or available revenue. In order to determine the impact on available revenue, the DLM would have to change their study protocols to include analysis of budgets, rather than their current methodology, which consists of surveying the municipalities only on their costs.

Furthermore, the Local Mandate Law does not apply to those administrative regulations that expand costs which are incidental local administration expenses.\textsuperscript{44} It is important to note that what is incidental to a municipality the size of Boston may not be incidental to a small community like Gosnold (population: 77).\textsuperscript{45} Therefore, to decide whether the mandate is incidental based on the size of the community, the DLM should examine the impact as a percentage of the total department budget. This study sought to investigate: first, if there is an impact; and second, whether that impact is proportional to the size of the community.

**Problem Statement**

State mandates on municipalities can have a fiscal impact on municipal budgets. These potentially unfunded mandates can compound to have a sizable impact on municipal budgets. While some states, like Massachusetts, have provisions for the reimbursement of those mandated

\textsuperscript{43} MASSACHUSETTS LOCAL MANDATE LAW, supra note 14.
\textsuperscript{44} LOCAL MANDATE LAW, 29 MGL (1980).
\textsuperscript{45} While the changes to the mandates included in the Massachusetts Public Records Law are administrative in nature, to a small community, like those with populations less than 10,000 persons, they are not incidental.
costs, the cost estimation of legislative mandates is both a political and scientific process that has had mixed results. There is a gap in the literature surrounding the effect of a mandate on operating budgets relative to the size of the jurisdiction, and, accordingly, the size of its budget in relation to the tax levy.

**Purpose of the Study**

The purpose of this quantitative study is to utilize the Difference-in-Differences (DID) technique to test the hypothesis that there has been a financial impact to municipalities as a result of this policy intervention. Before this study, quantitative methods have seldom been used to examine the differences in the impacts between communities. For the purposes of this study, quantitative methods are necessary to obtain non-biased data on the resulting financial impacts of mandates on municipalities.

Second, the study will determine if small municipalities realize a different impact from this state mandate in Massachusetts than larger municipalities, by examining municipal Clerk Department budgets. This study will examine the Massachusetts Public Records Law requirement of having at least one RAO, and the resulting causal effect on municipal Clerk’s Department budgets devoted to this mandate.

**Research Question(s) and Hypotheses**

The study will be guided by the following research questions for quantitative analysis:

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47 DID is an econometric technique that analyses the impact of a treatment as compared to a control group.
Do Massachusetts municipalities with populations less than 10,000 persons experience a greater fiscal impact from complying with state mandates than larger municipalities in Massachusetts?

Have the additional responsibilities of requiring a Records Access Officer impacted small municipalities more than larger municipalities, based on their total budget for expenditures and staffing needs? The study hypothesizes that the answer to both questions is yes. Based on the size of the municipal budget in small communities, the cost to meet mandated requirements, on par with those of larger communities, would be a larger percentage of the budget and therefore have a disproportionate impact.

**Theoretical Framework**

This study aims to examine the causal effect of a state mandate on small municipalities in Massachusetts. The hypothesis is that small communities are more acutely impacted by state mandates than large communities. Large municipalities will be treated as a control group, based on the assumption that they can absorb the costs of many of the state mandates within their existing budgets. In this study, the specific mandate addressed will be the Massachusetts Public Records Law requirement of a municipal RAO. In order to address this topic, this study performs an economic analysis of the impact of legal decisions, based on the theoretical frameworks developed in the discipline of law and economics.

Posner, sometimes referred to as the father of law and economics, explains that including economics in policy discussions serves to draw attention to the costs that the legislative body

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49 The impacts studied are the budgetary impacts to the Town Clerk Department budgets.
may overlook.\textsuperscript{50} It is not uncommon for a municipal legislative body (or in this case Town Meeting) to overlook the full economic impact of their decisions. The study of these economic consequences is the intersection of law and economics. However, MacCormick writes that the theories of law and economics are distinct, and exist and develop independently of each other.\textsuperscript{51} \textit{Structural coupling} is the interactive relationship of the independent disciplines of law and economics.\textsuperscript{52} Law and economics individually have their own surrounding conditions; however, when these conditions comingle, there must be a mechanism to facilitate that interaction.\textsuperscript{53} The system of mandates in the United States, which is explored in this study, may be perceived as such a \textit{structural coupling} in that state mandates cause the interaction of local policy making and financial consequences.

Analysis of tradeoffs and alternatives, also known as opportunity costs, is one of Coase’s contributions to the study of law and economics.\textsuperscript{54} With limited revenue, policy decisions must be made by the legislative body and the results of these decisions, or the services not funded, are considered to be costs. Therefore, it is important that such decisions take into account the critical value of costs and shift to alternative options based on sensitive information about the values associated with the choice.\textsuperscript{55} Similarly, tradeoffs must be made in any policy decision; there must be a comparison of options and an economic assessment of the choices.\textsuperscript{56}

\begin{flushright}
\textsuperscript{52} Id.
\textsuperscript{53} Id.
\textsuperscript{55} Francesco Parisi & Vernon L. Smith, \textit{The Law and Economics of Irrational Behavior} (2005).
\textsuperscript{56} Cohen & Wright, \textit{supra} note 53.
\end{flushright}
In Coase's Theorem, rational actors make choices that have optimal results. A broad examination of costs may also include those termed social costs. To determine the total cost of a choice, both transactional and social, requires an examination of the possible choices. Using this logic, in order to fully understand the policy decisions involved in complying with a mandate, it is necessary to research the costs that will impact the regulated population. Mandates are a legal construct that cause a result through the actions required by a jurisdiction to comply with the mandated policy. Further, a complex social phenomenon of law takes place in the decisions a community must make as they determine what services to fund with their available revenue. While this seems to assume rationality of the actors, in many cases, the legislative body may not make rational decisions. In policy, bias, which may come in the form of pressure from various stakeholders, can influence the actions of the actors. The influence of this bias does not always lead to the optimal benefit for stakeholders, meaning that the actors are not making rational decisions. Therefore, for the purpose of this study voters at Town Meeting—the legislative body—are not considered rational actors.

The economic concept of Pareto Efficiency, the most efficient allocation of resources, is often discussed in relation to an examination of how decisions are made. This concept can be used, in general, to describe the distribution of the population and the public’s choices of how to fund mandates. Public goods, the type of goods that exist for the entire community to be enjoyed by all community members, are not usually assumed to be provided at an optimal level. As a

matter of fact, the opposite is often true. Brown and Matzkin showed that there are no testable restrictions to cost equilibrium when the utility, or public good, is subject to a budget constraints.\(^6\) Therefore, mandates that are subject to budgetary constraints are closer to the Lindahl Equilibrium than Pareto Efficiency. Lindahl Equilibrium describes how the public pays their taxes, in this case property taxes, based on the marginal benefits they receive in the form of municipal services.

Proposition 2 \(\frac{1}{2}\) places a budget constraint on the community by limiting available revenue available for expenditures. This creates a problem with the rising cost of service delivery, when revenue is unavailable due to tax limitations. While Proposition 2 \(\frac{1}{2}\) was a voter initiative intended to curb taxation, it may not always lead to the optimal balance of revenue generation and delivery of municipal services to the community. This study examines this struggle between the policy of limited taxation and the implementation costs of mandates.

Definitions

The following definitions will be helpful in understanding the terms used in Massachusetts surrounding municipal tax collection. This list also includes definitions of policy and economic terms, which will provide an explanation of how the terms are used in this study.

Annual Street Listing – “lists containing the names and addresses of all persons seventeen years of age or older.”

Difference-in-Differences (DID) – model that uses a control group and a treatment group to compare the differences in outcomes after a treatment.

Excluded Debt – “debt in excess of the levy limit excluded for the purpose of raising funds for debt service costs.”

Federalism – “the distribution of power in a government organization between a central authority and the constituent units.”

New Growth – “New growth is calculated by multiplying the increase in the assessed valuation of qualifying property by the prior year’s tax rate for the appropriate class of property.”

Proposition 2 ½ – 1980 ballot initiative in Massachusetts that limits the tax levy to a 2½% increase over the prior year.

Tax Levy – “the revenue a community can raise through real and personal property taxes.”

62 STREET LISTS, 51 MGL.
64 levylimitsprimer.pdf, supra note 37.
66 levylimitsprimer.pdf, supra note 37.
67 MASSACHUSETTS PROPOSITION 2 1/2, supra note 13.
68 Id.
Assumptions

This study assumed that the changes to the Public Records Law that went into effect on January 1, 2017 caused an increase in operational costs to municipal clerks in Massachusetts. It is further assumed that examination of the budgets of the Town Clerks for two fiscal years before and two fiscal years after the change took effect will answer the research questions.

The DID technique assumes common trends. The common trends imply that, without treatment, in this case without the new mandate, the treatment group and control group would have a common outcome. In the case of this study, a visual inspection of the data in Figure 1 suggests that the upward trend of the Clerk’s budgets in the larger municipalities was steady as is the budget in the small municipalities. This would suggest that the results of this study may be unreliable.

![Graph of Treatment and Control Over Time]

Figure 1. Trend in budget over time.

69 ANGRIST & PISCHKE, supra note 69.
As the hypothesis is tested, it is necessary to make several important assumptions in order to employ the DID technique. One assumption is that larger communities are not affected by this change in the law. This assumption is derived from the exemption in the Local Mandate Law for “incidental local administration expenses.”\textsuperscript{70} Therefore, large communities, those with a population over 10,000 persons, as determined by the Annual Street Listing, will be the control group. Larger municipalities are presumed to be able to assume the costs of the mandate into existing administrative infrastructure.

Another assumption is that the composition of the control and treatment groups remains stable for a given time period.\textsuperscript{71} Unobservable differences across towns were assumed to be stable over the study’s four-year time frame. The difference in the starting and ending population was examined to ensure that there were no dramatic (greater than 25%) increases. This study also included an examination of the per-capita change in budget over time. As there was little change in population, there was also little to no change in the per-capita result of budget over time, less than two dollars per-capita in 174 of 209 towns.

Finally, this study assumes that all influences are equal other than the variable being tested. In other words, the study assumes incomes, housing values, and similar variables are equal before and after treatment for the entirety of the time period being examined. Since this study utilizes a four-year period, there is a greater likelihood all influences are equal. If the study was more longitudinal in nature, it would have been necessary to account for these variables.

\textsuperscript{70} MASSECHUSETTS LOCAL MANDATE LAW, supra note 14.
Scope and Delimitations

The scope of this study is limited to the Commonwealth of Massachusetts. The Commonwealth’s Local Mandate Law makes Massachusetts somewhat unique, in that laws enacted by the state legislature may not be enacted without a corresponding appropriation the law if it will cause a financial cost to local jurisdictions. More specifically, the study will examine the office of Town/City Clerks. Town/City Clerks are defined as RAOs by the Public Records Law. There are 351 municipal jurisdictions in the Commonwealth, creating a study population of 351. This population will be divided into two segments—those with populations under 10,000 persons and those with populations above 10,000 persons—as reported by the Clerks on the Annual Street Listing. This 10,000-person threshold was utilized in this study since it is used by the Small Town Administrators Association as their population threshold for the definition of a small town.

The Study employs the Annual Street Listing prepared for the Secretary of the Commonwealth as a measure of population. This metric was used so that population changes could be monitored on an annual level. This was more accurate, over the short time period used in this study, than using the available federal decennial census, which only shows changes every decade. The downside of using the Annual Street Listing is that it only counts individuals who are 17 years of age and over and is not a complete count, as the federal census is.

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72 MASSACHUSETTS LOCAL MANDATE LAW, supra note 14.
73 MASSACHUSETTS PUBLIC RECORDS LAW, supra note 25.
74 Municipal Databank (Data Analytics), supra note 5.
75 STREET LISTS, supra note 56. Individuals who are law enforcement or public safety personnel may request to be withheld from the list 51 MGL 4(e).
Limitations

Since municipalities are legally required to respond to all Public Records Requests within 10 days, obtaining a statistically significant response did not seemingly pose a limitation to the study. However, the utilization of Public Records Requests became a limitation to the study in that not all the data was complete or in a similar format. As such, extrapolation of the data from the public records request responses made comparison difficult.

Significance

The Local Mandate Law, as previously discussed, aims to assure that there is not significant impact on municipalities from mandated State law. This study will determine if small municipalities are impacted by the amendments to the Public Records Law. This determination is significant to small-town administrators to provide an example of how they are different than their larger counterparts.76

Summary

This chapter demonstrated that there is a need to research the effect of state mandates on Massachusetts municipalities and what is required to meet the requirements of the Public Records Law. Furthermore, a difference in outcome may exist, depending on the size of the municipality. Using DID will provide the opportunity to show that, while there is no impact to larger municipalities, there may still be an impact to smaller municipalities.

Chapter Two will illustrate the importance of studying mandates and their impacts on state and municipal relations. This discussion includes the significance of the Public Records Law and the juxtaposition of mandates and municipal budgets. Extant literature illustrates that mandates can be used to force various political divisions to act and that coercion is an element of

76 The Small Town Administrators of Massachusetts represents this group of municipal officials.
federalism in this country. The Massachusetts Public Records Law is an example of this mandate to act from the Commonwealth to the agencies and lower political divisions across the state. This type of mandate will be discussed in terms of its effect on municipal divisions by property tax limitations, in Massachusetts known as Proposition 2 ½.

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Chapter 2: Literature Review

State mandates on local government jurisdictions can have a fiscal impact on local budgets. There is a research gap surrounding the effect of mandates relative to the size of the jurisdiction and, accordingly, the size of its budget and tax levy. The purpose of this study is to utilize econometrics to test whether small municipalities realize a greater fiscal impact from mandates compared to larger municipalities.

This research takes a three-pronged approach to the literature: the records access legislation used in the analysis, the issue of property tax limitations, and the influence of federalism. Both historic and current literature on the topic of mandates is primarily qualitative in nature. There is little quantitative research on the impacts of mandates on municipalities. The literature suggests that there is an impact, but further research is required to quantify that impact.

Literature Search Strategy

The literature search began with Massachusetts General Law and the guidance documents prepared by the Secretary of the Commonwealth. This research on the legislative provisions associated with public records was the foundation for the study. In researching the Massachusetts Public Records Law, and other mandates in Massachusetts, it was necessary to delve into the somewhat unique municipal revenue limitation that the state imposes on municipalities, namely Proposition 2 ½.

A great deal of information on Proposition 2 ½ has been produced by the Massachusetts Department of Revenue Division of Local Services. Research included not only the enabling ballot initiative but also the documentation on calculation of the tax levy and its impacts on municipal spending. In addition to government documents, Scholar OneSearch was used to find additional materials on the topic, including journal articles and books.
Following the review of the statutes, guidance documents, and other supporting materials, mandates were then examined from a broader perspective; in this chapter, these materials are used in discussion of the interaction between state and local jurisdictions. The research on federalism issues was conducted utilizing LexisNexus Academic and JSTOR.

**Literature Review Related to Key Concepts and Variables**

The literature review revealed three themes: legislative intent, property tax limitations, and unfunded mandates. Researching the history of the Public Records Law in Massachusetts highlighted the intent of the legislation from the state’s perspective. However, this intent is intertwined with the fact that the legislation places requirements on municipalities. Whether or not these requirements constitute an unfunded mandate is the next logical question, which is imperative to the research question at hand. Finally, the interrelationship caused by such mandates of the state and local policy making bodies was examined. In the following sections, each of these themes is explored in relation to the research problem and purpose.

**Legislative Intent**

This section will explore the Massachusetts Public Records Law and the associated mandate for municipal Records Access Officers (RAO) which are responsible for coordinating responses to public records requests. This section includes a discussion of the differences in the fiscal impact of the mandates included in the public records law changes between large and small communities. This section will show that these differences are partly the result of Proposition 2 1/2.

The 2016 Act to Improve Public Records contained various provisions to update the regulations dealing with public records management in Massachusetts. The date this law came into effect is critical for DID analysis, as this date distinguishes “before” from “after.” Provided
it is exogenous to community size, it is possible to infer the causal effect of this law via DID.\textsuperscript{78} While one of the updates to the statute and corresponding rules applies differently to state agencies; most apply to all records of the commonwealth, counties, cities, or towns.\textsuperscript{79} Regardless of the applicability, the goal of the statue is transparency in government and ease of access for the public seeking information, regardless of the agency in possession of the records.

One provision in the 2016 Act to Improve Public Records that applies to all agencies and municipalities is the requirement to appoint at least one RAO.\textsuperscript{80} For municipalities, the Clerk is automatically a RAO; the authority to appoint additional RAOs is granted to the Chief Executive Officer.\textsuperscript{81} Clerks are often the primary RAO and are the keepers of vital records, meeting notices, and various filings. As a result of these responsibilities, the legislative committee of the Massachusetts Clerk’s Association is typically watching changes to the Public Records Law. Other provisions in the Public Records Law include deadlines for responses to requests, requirements for the custodian of records, and others.

Albano and Hall have noted that the RAO has several responsibilities, including identification of records that are in municipal control, identifying records and providing specific exemptions for those records withheld, and providing suggestions of reasonable modification of the request to improve efficiency and affordability.\textsuperscript{82} These responsibilities are new, as of 2016 revisions to the Public Records Law, and may require additional staff or additional compensation to existing staff in order to meet the statutory requirements.

\textsuperscript{78} Albano and Hall, \textit{supra} note 23.
\textsuperscript{79} An example would be the reimbursement of the costs to compile records for the requestor which is greater for municipalities.
\textsuperscript{81} \textsc{Massachusetts Public Records Law}, 66 MGL §6A (2016).
\textsuperscript{82} Albano & Hall \textit{supra} note 23.
As the literature demonstrated in the preceding section, the state requirement for a municipal records access officer is a mandate. While this mandate could present a financial cost to communities of all sizes, those costs may be more affordable to larger communities. Large communities typically have larger budgets than their smaller counterparts; as such, their budgets grow at a greater rate as Proposition 2 ½ is calculated.

**The Influence of Property Tax Limitations**

Property tax limitations can affect a municipality’s ability to pay for state mandates. In Massachusetts, the property tax limitation is based on the municipal tax levy in the previous year, limiting the revenue available to absorb the administrative costs of mandates in smaller communities. While other revenue sources may be explored, these too are limited in many small communities, especially bedroom communities outside of service centers.

**Proposition 2 ½.** Massachusetts Proposition 2 ½ limits a municipality’s ability to levy property taxes to generate income, which directly affects a municipality’s ability to pay for public services.\(^{83}\) This is related to the concept in municipal finance of willingness to pay. Willingness to pay refers to what a community considers to be of value.\(^{84}\) For example, a community may be willing to pay for the higher costs of a best-in-class education system, regardless of whether they can afford it.\(^{85}\)

Oh and Hong found that trust in government actions is often a critical factor in analyzing willingness to pay.\(^{86}\) It seems that the economic value of a project can be lowered even when a

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83 Each year, a municipality can only raise and appropriate property taxes based on Previous Year’s Levy Limit with the addition of 2 ½ % of the prior years’ levy, any new growth, and any Excluded Debt.
85 If a community in Massachusetts wishes to spend above their ability to pay on operating expenses, there is a mechanism to allow this: a tax levy override.
project is desired, where distrust exists.\textsuperscript{87} If indeed a project is valued by the public, and the public trusts the government is making the correct decision, there is a question of whether the community has the ability to pay, given the confines of Proposition 2 ½. The differences in the ability to pay based on community size have yet to be explored in the literature.

Joan Youngman, Senior Fellow and Chair of the Department of Valuation and Taxation at the Lincoln Land Institute in Cambridge, MA, is an authority on taxation and has studied and written specifically about Massachusetts. She has concluded that Proposition 2 ½ has encouraged more accurate assessment of valuation of taxable real and personal property. Further, Proposition 2 ½ has promoted assessing property at full fair market value as opposed to the egregiously inaccurate assessments that existed prior to the adoption of Proposition 2 ½.\textsuperscript{88} In Massachusetts, the community-wide median assessment/sales ratio (ASR) may not go below 90\% or above 110\%.\textsuperscript{89} The effect of this is that the assessed fair cash value of properties must be within 10\% of the actual market value.

Proposition 2 ½ causes three layers of impacts: lowered municipal appropriations, reduced property taxes, and worsened public-labor relations.\textsuperscript{90} Cutler, Elmendorf, and Zeckhauser found that Proposition 2 ½ has caused a disproportionate effect on large cities and towns that were taxing above 2 ½\% at the time of enactment.\textsuperscript{91} This means that communities that were taxing above 2 ½ had a disproportionate decline in revenue. This is the opposite of the effect hypothesized to be caused by mandates in this study.

\textsuperscript{87} Id.
\textsuperscript{88} YOUNGMAN YOUNGMAN & JOAN M. YOUNGMAN, A GOOD TAX: LEGAL AND POLICY ISSUES FOR THE PROPERTY TAX IN THE UNITED STATES.
\textsuperscript{89} Sean R Cronin, Informational Guideline Release 57.
\textsuperscript{90} Lawrence Susskind & Cynthia Horan, Proposition 2 1/2: The Response to Tax Restrictions in Massachusetts, 35 PROC. ACAD. POLIT. SCI. 158-171 (1983).
\textsuperscript{91} David M. Cutler, Douglas W. Elmendorf & Richard Zeckhauser, Restraining the Leviathan: property tax limitation in Massachusetts, 71 J. PUBLIC ECON. 313-334 (1999).
Susskind and Horan explored the motivations for effects of Proposition 2 ½, including the reason behind the enactment of such a tax levy limitation in Massachusetts. In their research, they theorized that five factors were involved in the political history of Proposition 2 ½: voter sentiment, agency loss, mission accomplished, personal finance, and demographic differences. Proposition 2 ½ was a ballot initiative allowing voters to express their attitudes towards municipal taxation directly at the polls, making voter sentiment clear. Much of the public pressure for the initiative came from the Citizens for Limited Taxation: a grassroots effort to limit taxation in Massachusetts. 92 Susskind and Horan defined agency loss as the situation where municipal funds are spent on services where the community does not see value. Mission accomplished, according to Susskind and Horan, is achieved when the initiative has reduced the tax burden, leaving voters more likely to approve additional spending. This is similar to the effect in personal finance when the population gauges efficiency by the size of their individual tax bill. Finally, demographic difference theory is the idea that the community feels like government is inefficient when it spends revenue of demographic groups different from themselves. 93

Youngman has surmised that, despite the criticism of Proposition 2 ½, the measure has remained in place and stable for over 30 years and has resulted in accurate market value assessments. 94 One of her findings was that the classification system of Proposition 2 ½ favors residential development in that, generally, most of municipal costs are generated by residential development, whereas non-residential classification is often taxed at a higher rate. 95 Therefore,

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93 Id.
94 YOUNGMAN AND YOUNGMAN, supra note 29.
95 Id.
while residential development creates more expense than revenue, the inverse is true of non-residential development. This concept was also iterated in 2006 at the University of Illinois.  

**Other revenue.** Some communities have adopted mechanisms to generate revenue outside of the property tax; some have not. In a community that operates as a service center, with a concentration of commercial uses, there are many options for revenue generation. The first method is to utilize different tax classifications for non-residential and residential uses. However, most small and/or rural municipalities are bedroom communities and are limited to the 2½% additional tax levies allowed by law.

Since this study only examines the Clerk department budgets, full analysis of the balance sheet, which would fully describe other revenue sources, was not completed. The other revenue sources are incorporated in the funds available to be appropriated to the Clerk department.

The literature on property tax limitations has demonstrated that property tax limitations affect a municipality’s *ability to pay* for state mandates. Such limitations also have been demonstrated to affect the perception of governments’ effectiveness and efficiency in the public eye, which thereby affects the community’s *willingness to pay*. Ability and willingness to pay are integral factors to consider in relation to how mandates are funded by the legislative body.

**Unfunded Mandates**

Mandates imposed from one level of government to another, in this case state to municipal, require a discussion of federalism. This section explores the goal of democracy, including a discussion of federalism. Throughout the founding of our country, the struggle of

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96 Richard Dye, Daniel McMillen & David Merriman, 19 Alternatives to Cook County’s 7% Cap on Assessment Increases (2006).
98 Federalism is the division of powers between levels of government. The ensuing discussion of federalism in the United States is based on the concepts explored in the *Federalist Papers*. 
state versus federal powers has been apparent. Alexander Hamilton once said: “Give all the
power to the many, they will oppress the few. Give all the power to the few, they will oppress the
many.” 99 This statement illustrates the need to keep the bulk of the power with the people or the
states and delegate only that power which is necessary for the execution of effective government
to the federal level. The same can be said for the intersection of states and, in the case of New
England, the local government bodies.

**Mandates.** When there is a legal requirement for a service to be provided by a
subordinate level of government without an accompanying appropriation, there is consensus that
it is an unfunded mandate. 100 Zelinsky identified the existence of unfunded mandates in New
England as far back as 1835, when there was a tendency to impose responsibilities on local
jurisdictions rather than the states executing the responsibilities. 101 Examples of these
responsibilities, as noted by Zelinsky, are the requirements of public schools and Medicaid. The
state uses mandates to shift the burden of policy implementation to the municipalities.

While extant literature has suggested that State mandates are often more restrictive than
federal mandates, Doeksen and Allen suggest that intergovernmental policy, the state
implementation of federal regulations, is most costly to small municipalities. 102 As opposed to
government bodies working independently of or against one another, Hoene and Pagano have

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99 Alexander Hamilton et al., The Federalist Papers (2014),
http://ebookcentral.proquest.com/lib/northeastern-ebooks/detail.action?docID=415875 (last visited Dec. 10,
2017).
100 Edward A. Zelinsky, Unfunded Mandates, Hidden Taxation, and the Tenth Amendment: On Public
101 Id.
102 Gerald A. Doeksen & Claude W. Allen, Impact of Federal and State Mandates on Local
Governments, 5 (1990); Priscilla L. Hanford & Alvin D. Sokolow, Mandates As Both Hardship And
argued that efficient fiscal operations can only occur when all three levels of government work together.\(^\text{103}\)

In Massachusetts, the judiciary has not recognized conditional mandates as falling under the State’s unfunded mandate statute.\(^\text{104}\) Conditional mandates are another mechanism for coercion, occurring when the local government body is faced with losing substantial state aid if they do not comply. In connection with the need to balance costs, this makes implementation imperative.\(^\text{105}\)

Legal writer Patricia T. Northrop noted that the number of unfunded mandates has grown over time, exacerbating the cumulative effect of such mandates.\(^\text{106}\) She further goes on to discuss the authority of the legislature to impose such mandates in that federal statute is invalid if it exceeds the scope of constitutional power.\(^\text{107}\) However, the U.S. Supreme Court has determined that Federal agencies can refuse to promulgate rules if the rules would constitute an unfunded or underfunded mandate.\(^\text{108}\) In Massachusetts, the DLM must make a mandate determination in order to cause the fiscal costs of the mandate to be reimbursed by the Commonwealth.\(^\text{109}\) Not promulgating rules or not implementing policy is not an option.

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\(^{105}\) Id. This coercion can be seen in many Department of Transportation projects, if the projects do not meet strict State design requirements that can conflict with local transportation goals, then no state aid is available for design or construction.


\(^{107}\) Id.


\(^{109}\) Massachusetts Local Mandate Law, supra note 14.
**Federal system.** The federal system has become overloaded and overly complex, according to Sokolow, and the inclusion of small communities and their governments in federal programs has added to this overload.\textsuperscript{110} The U.S. Advisory Commission of Intergovernmental Relations expressed concern that, as new regulations are created Congress, constrained by budget deficits, attempts to respond to social problems, this overload will accelerate.\textsuperscript{111}

Ladd and Wilson, in a 1983 study of voter preferences, concluded that, while Proposition 2 \(\frac{1}{2}\) was passed at a statewide election, it impacted local governments in a way that resulted in fiscal constraints in some communities against the will of the residents.\textsuperscript{112} The fact that Proposition 2 \(\frac{1}{2}\) was passed by a majority vote of the public at a statewide election demonstrates the conflict sometimes exhibited at meetings of the legislative body: Town Meetings. The voters in a community must then decide at their Town Meeting between services that, often limited, tax revenue can support.

One mechanism that legislatures have used to deal with the costs of unfunded mandates is the enactment of reimbursement provisions. A reimbursement provision is one that requires the state to reimburse the local jurisdictions for all the additional costs associated with implementation of a mandate, after the fact.\textsuperscript{113} According to Kelly and Shaffer, California and Massachusetts are the best examples of such reimbursement provisions, even though both states have problems with implementation. An example of one such problem exists in Massachusetts, where the law does not consider conditional aid as an unfunded mandate; this type of exemption

\textsuperscript{111} Federal Regulation of State and Local Governments: The Mixed Record of the 1980s.
can circumvent the process and the intent of the law.\textsuperscript{114} Conditional aid is defined as that which is dependent on a local jurisdiction meeting an outcome desired by the State. Kelly noted that the reimbursement provision, enacted by voter initiative Massachusetts in 1980, included no mechanism to prevent conditional aid mandates.\textsuperscript{115} This means that the Commonwealth can still impose unfunded mandates if this is accomplished thorough conditional aid.

Kelly further asserted that, when implementing a reimbursement provision, the state must first determine the costs of the mandate to the local jurisdiction. Surveys of the local government bodies are a typical method of cost estimation. A limitation of this method, according to Kelly, is that local government bodies have a history of not providing reliable and accurate estimates of mandate costs, and their contribution to any cost-estimation process for federal mandates is suspect.\textsuperscript{116}

In addition, Kelly suggested that cost-estimation is not a random process and therefore the results of any such analysis cannot be inferential.\textsuperscript{117} Cost estimation means that results are obtained from communities that are making estimates of their own costs in order to have those costs reimbursed, rather than utilizing a scientific process. Thus, there is natural tendency to err on the side of high estimates. However, quality is not precision, and not distinguishing between quality and precision can undermine the process. For these reason, Kelly asserts that reimbursement requirements rarely work.\textsuperscript{118} Kelly also stated that the most effective fiscal noting processes combines a scientific process and politics.\textsuperscript{119}

\textsuperscript{115} \textit{Id.}
\textsuperscript{116} Kelly, \textit{supra} note 50.
\textsuperscript{117} Kelly, \textit{supra} note 17.
\textsuperscript{118} Kelly, \textit{supra} note 50.
\textsuperscript{119} Kelly, \textit{supra} note 17.
**Reimbursement.** Reimbursement provisions entail substantial state government investment to analyze impacts, which adds to the legislative process examination of all legislative regulations, estimation of costs, finding means of funding, and creating a process for appeals.\(^{120}\) Northrop has noted that, in constitutional analysis, if a financial incentive is so coercive it becomes a compulsion to act, then the state or local governments may have a basis for challenge.\(^{121}\) While the Tenth Amendment of the U.S. Constitution provides a constitutional basis for the challenge of federal mandates, there is no similar state constitutional provision in Massachusetts for local governments to challenge state mandates.\(^{122}\)

A challenge with levels of government working together tends to occur in terms of the ability for state and local governments to communicate with one another. This communication gap makes “partnership federalism” difficult.\(^{123}\) The concept of partnership or cooperative federalism has long been discussed in extant literature.\(^{124}\) Here, the levels of government work together to meet the goals of outcomes, rather than the central government simply mandating the outcomes from the constituent jurisdictions. This partnership could result in mandates that have more equitable effects on municipalities of various size and geography.

**Federalism.** The implementation of mandated policies can have long-term benefits to state and municipal governments.\(^{125}\) However, the question remains as to whether such benefits outweigh their costs. Hanford and Sokolow found that the responsibility of carrying out mandates imposes a significant burden on small communities.\(^{126}\) According to Galle, mandates

\(^{120}\) Janet Kelly, *Unfunded mandates: The view from the states*, 54 PUBLIC ADM. REV. WASH. 405 (1994).
\(^{121}\) Northrop, *supra* note 44.
\(^{122}\) Shaffer, *supra* note 42.
\(^{123}\) Kelly, *supra* note 50.
\(^{124}\) Schütze Schütze & Robert Schütze, FROM DUAL TO COOPERATIVE FEDERALISM: THE CHANGING STRUCTURE OF EUROPEAN LAW (2009).
\(^{125}\) Hanford and Sokolow, *supra* note 91.
\(^{126}\) Doeksen and Allen, *supra* note 90.
can put local governments at risk of losing the ability to pay for essential functions. For this reason, they are “coerced” by the federal government. In addition, Jaber asserted that the issue of federalism at the municipal level really comes down to a local government’s freedom to devote resources to those goods and services in which the polis sees the most value. Doeksen and Allen coined the term “fend-for-yourself federalism” to describe how the federal government’s policies affect small local governments. This impact to communities necessitates a learning process for weaning off dependence on state and federal aid. In the long-term, communities must find a way to strengthen their financial systems. All this theory leads to the conclusion, noted by Hoene and Pagano, that the combination of declining intergovernmental aid, increased regulations, and inability of towns to design their own revenue systems has placed municipalities in a precarious situation.

Another issue specific to Massachusetts is that of failure to regulate. In Massachusetts v. EPA, the argument of lack of funding as a reason not to regulate was not utilized. According to Schwentker, the absence of this argument leaves the issue open to a possible additional reason for a legal challenge of the mandate.

This discussion of federalism reveals that evaluating unfunded or underfunded mandates can produce significant knowledge about the ability of municipalities to act independently of states. The sovereignty of a community to regulate itself and provide those services it values is a

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129 Doeksen & Allen, supra note 90.
130 Id.
131 Hoene & Pagano, supra note 92.
132 Massachusetts v. EPA, (2007); Schwentker, supra note 46.
core concept in American government. The stakeholders, here the polis, have a stake in determining the regulations they choose to enact to protect their values.

The body that benefits from unfunded mandates are the politicians and public interest groups which have colluded to enact legislation that forces a subordinate government body to act in what they have determined to be the public interest, perhaps without the input of much of the regulated public. Increasingly, over the decades, small municipalities and big cities alike have been subject to copious numbers of programmatic mandates. The financial costs of compliance with state mandates reduce the revenue available to implement municipal policy.

In conclusion, extant literature has suggested that mandates can be used to coerce jurisdictions to perform in a particular manner. The imposition on municipal sovereignty in a Home Rule state, where municipalities may implement any policy the state has not forbidden, has been shown to be important because it limits the availability of funding to implement municipal priorities and policies.

**Summary and Conclusions**

This literature review has revealed that mandates exist from the state and are passed on to local jurisdictions. These state mandates are sometimes unfunded and sometimes those costs are reimbursed by the state. Either way, the complex cost estimation process is the same. Cost estimation is based on information from the municipalities and is often inaccurate; it does not account for factors beyond the cost of an individual mandate, such as size of the municipality and budget or applicable property tax limitations.

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133 Zelinsky, supra note 37.
134 Sokolow, supra note 47.
While there has been some qualitative study of the impact of mandates, little quantitative analysis exists. This study will add to the literature on how the effect of a mandate may differ in its financial impact, depending on the size of the municipality. This will be accomplished not with cost estimates from the affected municipalities, as has been done in the past, but from the use of econometrics to analyze the budgets of municipal Clerks with data collected through public records requests. This study, therefore, adds to the currently spares body of literature using quantitative analysis to address this topic.
Chapter 3: Methodology

This quantitative study utilized the Difference in Differences analysis technique to test the following hypothesis: that there has been a greater fiscal impact to small municipalities than large municipalities as a result of the changes to the Massachusetts Public Records Law. By examining municipal Clerk’s department budgets in Massachusetts and whether the proportion of Clerk’s department expenditures is greater in municipalities having populations below 10,000 persons, the study provides a basis for decision makers to equitably draft future regulation. This study examined the impact to the municipal Clerk’s department budget as a result of complying with the Records Access Officer (RAO) mandate.

Research Design and Rationale

This research utilized a quantitative research approach employing econometrics to analyze the costs associated with public records delivery in Massachusetts. This approach was the result of assuming a postpositivist worldview, which uses a scientific method while understanding the impact of inherent bias. In this sense, the study utilized a quantitative method to determine if the 2016 changes in the Massachusetts Public Records Law had a greater influence on the budget outcomes in smaller municipalities.

The main effect studied was the impact of the RAO requirement on the municipal budget in smaller municipalities. The null hypothesis was that there was no effect on the Clerk’s department budget, regarding implementing the RAO requirement of the Massachusetts Public

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Records Law changes. The 10,000 person threshold of a small municipality was selected to align with the threshold of the Small Town Administrators of Massachusetts organization.

Two sets of existing data were collected: total Clerk’s Department budget for each municipality and the population reported in the Annual Street Listing. The Annual Street Listing is an account of the adults in a community. It includes all adults who are over the age of 17, except for public safety officials. This number was used because it reflects more subtle annual changes than the decennial U.S. census. The Annual Street Listing population is meant to reflect the quantity of public records in a community: the reason for using this figure is that, the more adults in a municipality, the more records present in that municipality. There is no accounting metric of the number of records in a municipality; the annual street listing was used as a substitute for this metric.

The study used larger municipalities as a control group and small towns as the treatment group, using a DID analysis. This research was based on public information that all municipalities in Massachusetts should make readily available to the public. All the required data was collected using public records requests. These requests were e-mailed directly to the Town or City Clerk using the email addresses available from the Massachusetts Division of Local Services. The reason for targeting the Clerks is that the law identifies the municipal clerk as a RAO.

The research question relative to the effect of mandates on smaller municipalities is an issue that the Massachusetts Municipal Association and the Small Town Administrators of Massachusetts.

137 CRESWELL & CRESWELL, supra note 87.
Massachusetts should take an interest in. For years, there has been a predominant assumption that state mandates have a greater financial impact on smaller municipalities. This area of research represents a gap in knowledge, in part due to lack of reliability in the data. It is common that, when municipalities are surveyed about the impacts of mandates, there is variation in the assumptions the municipalities make in calculating their responses. To combat the potential for non-reliable data, the public records requests solicited discrete, not subjective, numbers; further, every clerk is mandated by the Secretary of State and the Department of Revenue to have this data available.

**Methodology**

This study utilized DID as the experimental design. This type of econometric analysis was selected as the study methodology in order to show the differences between large and small municipalities. This experiment isolated changes in the Public Records Law, which went into effect on January 1, 2017, as the treatment date. The study analyzed the budget of the municipal Clerk’s Department, before and after treatment, as the dependent variable. For the purposes of this study, the budget is defined as the total allowable Clerk’s department expenditure approved by the legislative body for a given fiscal year. The unit of observation was the municipal fiscal year; the data used is one observance in each of the four fiscal years. A fiscal year is from July 1 to June 30.

The dependent variable, budget, is the total appropriation of the Clerk’s Department. In Massachusetts, municipalities must have a balanced budget by law. As a result of this stipulation, the total Clerk’s department budget appropriation figure, in a way, represents both

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139 Zelinsky, *supra* note 37.
140 **LIABILITIES IN EXCESS OF APPROPRIATIONS FORBIDDEN**, 44 MGL 31 (2016).
revenues and expenditure. Clerk’s departments are part of the general government accounting. As such, their actual revenues would be amassed with those of other departments, such as tax collection. The expenditures, however, are separated by function. Since the Clerk is mandated to be a RAO, this study assumes there will be additional compensation for the existing Clerk’s department staff or that, in some cities/towns, additional staff will be hired. The study infers that budget encapsulated the additional compensation that may be caused by the RAO state mandate.

Card and Krueger performed a study using DID to examine of the effect of minimum wage changes on fast food restaurants.141 This influential study is an important example of how to use DID in order to study the effect of policy changes. The Card and Krueger methodology isolated a policy change, the New Jersey minimum wage, and compared fast food establishments in New Jersey to a control group: fast food establishments in eastern Pennsylvania. A comparison was made between the control and the treatment groups, to examine the effect of the policy change.142

The intended outcome of the DID analysis in this study was to collect enough evidence to suggest whether the null hypothesis can be rejected. In other words, does the study suggest that the Public Records Law changes, that first effected a whole fiscal year in 2018, had a greater influence on the municipal Clerk’s Department budget in smaller municipalities? DID analysis is appropriate for this study because, like the Card and Krueger study, it describes an economic condition before and after a treatment date. This approach utilized public records requests to collect the data. These requests were intended to ask for the budget of the Clerk’s Department for

142 Id.
two years before the treatment and two years after the treatment.\textsuperscript{143} For this reason, the fiscal years of 2016 through 2019 were utilized in the present study.\textsuperscript{144}

This study applied the “one group before and after design” described by Meyer in relation to quasi-experiments in economics.\textsuperscript{145} In the case of this study, there is a control group, cities/towns with adult populations over 10,000 persons, and a treatment group, Cities/Towns with adult populations under 10,000 persons. The study examined whether the average change in the Clerk’s department budget over time, before and after the law change in the treatment group, are greater than the average change in the Clerk’s department budget over time in the control group.

**Positionality Statement**

While trying to remain an objective researcher, I have come to understand that the challenges faced on a local government level are not always more difficult for small municipalities compared to larger towns and cities; they are merely different. Having been a small-town municipal manager for several years, I understand the budget crisis experienced in many small communities. This plight has become particularly evident during my tenure in Massachusetts, a state that limits the tax levy available through Proposition 2 \( \frac{1}{2} \).\textsuperscript{146} This prompted my hypothesis that mandates cause a greater fiscal impact to small municipalities.

By having a limit on the size of the local tax levy that is based on the prior year,\textsuperscript{147} budget decisions are not a matter of choosing how much the residents want to pay in local taxes to live

\textsuperscript{143} It is important to note that the treatment occurred at the middle point of the Fiscal Year 2018 budget.

\textsuperscript{144} Fiscal Year represents July 1 of the prior year to June 30 of the named year.


\textsuperscript{146} MASSACHUSETTS PROPOSITION 2 1/2, *supra* note 13.

\textsuperscript{147} The tax levy included the levy from the prior year and adds to it the new growth in a community. It is also important to note that excluded debt is not counted towards the levy limit.
with the benefits small communities have to offer; instead, they come down to choosing between services that can be accommodated within the levy limit. This choice is often a personal one to residents, in terms of the value they place on a service. The majority decision is based on the results of Town Meeting, the time when the budget is decided. I have seen this process of making budget choices polarize small communities and observed that the sacrifices made to pay for state mandates nearly cripple those communities by stripping funding for services from other essential municipal functions.

The budget process in towns makes the study of the fiscal impacts on municipal jurisdictions interesting. What is intriguing to me is the gap in the research: that there is little comparison of the effects of these fiscal challenges in large as opposed to small jurisdictions. From my own career experiences, I tend to believe that, when it comes to budget impacts, the proportional effect will be greater on smaller communities due to limits of the size of their budget. However, this also could be the reverse in larger communities, where the number of residents requiring a specific service may be so large that the impact is just as problematic as it is in smaller communities.

Population Selection

There are generally three considerations when designing a population sample: comprehensiveness, probability of selection, and efficiency. Comprehensiveness describes how completely the sample describes the target population. Probability of selection is whether it is possible to calculate the probability that any sample point is selected. Efficiency describes

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148 William Francis Galvin, Secretary of the Commonwealth Citizen Information Service 20.
whether the sample is cost effective to select and whether those ultimately omitted are distinct from the others in the sample.\textsuperscript{150}

The target population for this study was the 351 municipalities in Massachusetts. This is the entirety of the affected \textit{municipal} population to which the Public Records Law applies. While the statute also applies to other government entities, the focus of this study was on municipal impacts. All 351 Town/City Clerks were solicited with an e-mailed public records request. For a 90\% confidence level and a five percent margin of error, the goal was to obtain usable responses from 153 of the Clerks. Since approximately half of the municipalities fall into each sub-population of community size, the expectation was that the results may mimic that division.

The population in this study meets the comprehensiveness criteria because the entirety of the affected population has been sampled. The probability of selection, or response from each community, was not something that could be calculated in this case, as it was dependent on the response from the Town Clerk and not a function of the sample selection. However, there were over 153 usable towns, approximately half with populations under 10,000 persons and the other half with populations over 10,000 persons. In terms of efficiency, it was cost effective in this case to solicit the entire sample population, since the data collection process could be achieved digitally.

Town/City Clerks were selected as the subject of the study because they were designated as the default RAOs in the 2016 changes to the Public Records Law. Prior to this change in legislation, no municipal position was specifically charged with the functions prescribed to the RAO in 2016. Municipal Clerks are the primary source of information on many vital records, civil penalties, land use board filings, and other public records. Since the changes in the Public

\textsuperscript{150} \textit{Id.}
Records Law implemented a multitude of deadlines and response requirements for the RAO, the Clerk’s Department budget was assumed to be the most impacted by the changes in the law.

**Access to Data**

The study gained access to the data needed by utilizing the provisions of the Massachusetts Public Records Law. Chapter 66 Section 10 of the Public Records Law requires RAOs to respond to requests for records within ten business days with either the record requested or a good faith estimate of a reasonable time and cost, if applicable, to produce the requested records.\(^{151}\) The Massachusetts Department of Revenue (DOR) Division of Local Services (DLS) maintains a data gateway that was used to obtain the active e-mail addresses of each of the 351 Town/City Clerks.

Because this method of requesting information is available to the general public and governed by Massachusetts General Laws, the study was exempted from required Internal Review Board (IRB) approval. The records received were kept in a password protected Northeastern University e-mail address. The data points were entered into a spreadsheet and stored in a password protected cloud drive, backed up weekly onto a USB flash drive and an external hard drive. The back-ups were stored in different sites. This method of storage protects from technological and natural disaster. The data will be maintained for a minimum three years and access limited to the student researcher.

The model used in the DID analysis of this study was simple, and therefore may not account for all influences on the municipal Clerk’s Department budget. For example, during fiscal year 2017, there was a presidential election, the costs of which may be included in some of the budget figures. To the extent possible, this effect was minimized, as such election expenses

\(^{151}\) Massachusetts Public Records Law, *supra* note 25.
are only included when there was not a separate elections department. If a community indicated a reason for a budget spike or significant reduction not associated with the law being examined, their data was excluded. Some of the reasons for these exclusions include changes in the form of government or mergers with other departments, such as the Treasurer.

Data Collection

Figure 2 shows the initial e-mail sent to all the municipal Clerks. When scripting the text of the e-mail, care was taken to cite the appropriate provisions of law and regulation that applied to the request. The request also included a request for a waiver of fees, as allowed by statute, in the interest of the public good. Only one municipality attempted to charge a fee to provide this information; however, after consultation with the attorney-of-the-day in the Public Records Division of the Secretary of the Commonwealth’s Office, the municipality then chose to comply with the request without the fee.

152 Id.
Figure 2. Public records request.

One challenge encountered during data collection was push-back received from the Clerk community on the Annual Street Listing. This listing is not a census in the traditional sense. As a result, some Clerks assumed that the study required a true census, then sent the 2010 U.S. Census figures for their community. On some occasions it was necessary to explain to the clerk that the research did indeed require the Annual Street Listing total. The data collection process also encountered several communities who only recorded the names on the list, and not the total
number of names; as a result, no count was available, and the town was excluded from the analysis.

   It is interesting to note that one community’s population grew, during 2017, from being below 10,000 to being above 10,000. Therefore, this community was included with the above 10,000 group data since that was its population category in three of the four years collected. There was also one community that had a population decrease from above 10,000 to below. This community was included with the below 10,000 group since that was its population category in three of the four years requested.

   Also, several towns used a different nomenclature to describe their fiscal years. For most communities in the Commonwealth, fiscal year 2019 is from July 1, 2018 to June 30, 2019. However, a few communities consider fiscal year 2019 to be from July 1, 2019 to June 30, 2020. These communities were excluded from data analysis, since their data was incomplete without their fiscal year 2019 budgets approved yet.

   At the time of data analysis, 55 municipalities had not responded to the request at all, in violation of state law. In analyzing budget data from the Clerks, of the 296 responses, 87 were excluded from the analysis. These 87 communities did not have all the data necessary to include them in the analysis. Of the 209 usable communities, 106 had populations below 10,000, which represents a five percent margin of error at a 90% confidence interval. Further, 103 of the usable communities had populations above 10,000 persons, representing an approximately five percent margin of error at a 90% confidence interval. The ratio of large to small communities included in the study aligns closely with that of the total population; there are 179 municipalities with populations above and 172 below 10,000 persons. Figure 3 displays this breakdown.
The first step in the data analysis process was to organize the data into the format Stata/SE15 requires. The data preparation for State/SE15 included making a row for each year for each town, rather than using the columns set up during data entry into Microsoft Excel. The final data had columns for the town name, year of budget, budget figure, and binary code for the size of the community and time period. Once the data was imported into Stata/SE 15, a variable for the DID analysis needed to be generated. This is the product of the size multiplied by time.

At this point, the data was ready to be analyzed. Following the method employed by Card and Krueger, a linear regression and the DID analysis were performed on the original data. In addition, to try and access to relationship of the post treatment budget change to the size of the original budget, the natural logarithm of the budget figures was calculated as a new variable.

Figure 3. Response breakdown.

Data Analysis Plan

The first step in the data analysis process was to organize the data into the format Stata/SE15 requires. The data preparation for State/SE15 included making a row for each year for each town, rather than using the columns set up during data entry into Microsoft Excel. The final data had columns for the town name, year of budget, budget figure, and binary code for the size of the community and time period. Once the data was imported into Stata/SE 15, a variable for the DID analysis needed to be generated. This is the product of the size multiplied by time.

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153 Card & Krueger, supra note 121.
Threats to Validity

There are two primary types of error discussed in political science research: systematic error, or bias, and random error. Validity and trustworthiness are most often associated with systematic error, which takes a consistent direction. The main reason this study took a quantitative approach was to avoid any perceptions of critics that the impact that may be unsupported by the financial data. This type of error was avoided by examining the actual approved budget figures as a reflection of the impacts of a new service requirement on those figures.

That is not to say that all quantitative studies automatically avoid systematic error; care must be taken in the development of the data request so the responses will not be skewed or the answers susceptible to suggestion. Creswell refers to these threats to validity as internal threats as opposed to external validity threats. An external validity threat that may influence this study is timing of the data request. Municipal offices are quite busy at certain times of the year. For example, election season, in October and November, is quite challenging for Clerks. Therefore, thought was given to choosing when to make the request, so that officials were not hurried or careless when they provided their responses. Accurate responses are the cornerstone of a trustworthy analysis.

In exploring validation, as described by Adcock and Collier, this study focused on content validation to determine if the quantitative analysis used in this research is indeed valid. Content validation examines the relationship between the indicator and the systematized concept,

155 Creswell & Creswell, supra note 87.
156 Id.
without delving into the results of the measure. In this study, the relationship examined was
between municipal budgets and state mandates.\textsuperscript{157}

**Ethical Procedures**

This study requested information from municipalities that is legally considered public
record. As a result, there is a reduced need for consideration of ethical issues, such as voter
identity. The entire Town/City Clerk population of the Commonwealth of Massachusetts was
sent a public request via e-mail, making the sample selection equitable. The e-mail addresses
were obtained from an online database maintained by the Commonwealth.

This study chose to utilize public records requests for the collection of the requisite data.
Thus, there were no human subjects, making the study exempt from the Internal Review Board
(IRB) process. By utilizing records access requests that any individual from the public can make,
there are few ethical questions to consider. Researcher bias, in the formation of the questions,
was also avoided by requesting numeric data that is the same regardless of the language used to
ask for it as opposed to information that would need to be manipulated by the Clerk.

**Summary**

Using DID as the experimental technique provided a framework of analysis that
conforms to economic standards in research. Using the logarithmic differences allows the post-
treatment years to be interpreted as compounding rates of change. Using the natural logarithm as
opposed to raw numbers equalizes the change as a percentage of the whole budget, resulting in
showing the increase in the budget over time and reducing the influence of outliers. By using a
DID technique, the causal effect of the change in policy was examined.

\textsuperscript{157} Adcock and Collier, *supra* note 94.
Chapter 4: Findings

The purpose of this study was to determine whether Massachusetts municipalities with populations less than 10,000 persons experience a greater fiscal impact from complying with the state mandate requiring each municipality to have at least one Records Access Officer than larger municipalities in Massachusetts. The study hypothesized that the answer to this question would be yes; based on the size of the municipal budget in small communities, the cost to meet mandated requirements would be a larger percentage of the budget than in larger communities, and therefore have a disproportionate impact.

The findings in this study have been evaluated through the lens of DID analysis. The geographical focus of the data was the Commonwealth of Massachusetts. More specifically, the focus was the 351 municipal subdivisions that make up the Commonwealth.\textsuperscript{158} This data has been used to evaluate whether there is a difference in the impact of compliance with the 2016 Public Records Law changes in smaller municipalities than larger municipalities. To accomplish this, data from the two fiscal years of data before and after the effective date was collected.

Data Collection

A formal public records request, under Massachusetts Public Records Law,\textsuperscript{159} was sent to all 351 Town/City Clerks in the Commonwealth of Massachusetts. Two-thirds of the municipalities responded to the public records request within the ten days allowed by statute. A follow-up reminder of the request was sent; half of the remaining municipalities complied with the request at that time. In the end, 296 of 351 municipalities complied with the law and responded to the public records request. The remaining 55 municipalities who did not reply to

\textsuperscript{158} Municipal Databank (Data Analytics), supra note 5.
\textsuperscript{159} 66 MGL §10
two requests for publicly available data were not contacted again, although there is a State appeal process in place for not complying with a public request for information under the Public Records Law.

The distribution of municipalities in the Commonwealth of Massachusetts is such that approximately half of the total number of communities have over 10,000 persons as reported on the Annual Street Listing, and half have less than 10,000 persons as reported on the Annual Street Listing. The division of responses to the public records request was also distributed this way.

The table in Appendix A depicts the data that was compiled from the responses received from the public records request. The 2019 Annual Street Listing is largely incomplete, since many of the towns had not yet completed their Street Listings yet. This data is not due to the Secretary of the Commonwealth’s Office until April each year. However, since there were no significant fluctuation noted in the Annual Street Listing data obtained, the lack of figures for 2019 did not affect the results.

Data Analysis

The data received from each municipality was entered into Microsoft Excel daily as it was received, primarily via e-mail correspondence from the Records Access Officers (RAO) / Clerks. Any fractional numbers were rounded up or down using standard mathematical conventions. Figure 4 is a summary of the descriptive statistics of the data for the treatment and control groups, which appear in more detail in the Appendix.

The data analysis process employed Stata/SE 15.0; in order to use this statistical software, the Microsoft Excel spreadsheet was converted into a .dta file in the Stata/SE 15.0 environment. The columns were then named with the appropriate descriptions and coded with a
series of 1s and 0s. For the *size* variable, “0” represents the control group, those with reported populations of over 10,000 persons, and “1” represents the treatment group, reported populations of under 10,000 persons. For the *time* variable, “0” represents those years before treatment and “1” represents those years after treatment.
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<tr>
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<th>Small Budget 2017</th>
<th>Small Budget 2018</th>
<th>Small Budget 2019</th>
</tr>
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<td>Mean</td>
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<td>Standard Error</td>
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<tr>
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<td>Median</td>
<td>57140.5</td>
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<tr>
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<td>Standard Deviation</td>
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<td>Sample Variance</td>
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</tr>
<tr>
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<td>Kurtosis</td>
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</tr>
<tr>
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<td>Minimum</td>
<td>300</td>
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<td>106</td>
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<table>
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<th>Large Budget 2018</th>
<th>Large Budget 2019</th>
</tr>
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<td>Mean</td>
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<td>Mode</td>
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<td><strong>Standard Deviation</strong></td>
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<td>Standard Deviation</td>
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<td>Count</td>
<td>103</td>
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<tr>
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<td>23787.53206</td>
<td>Confidence Level(90.0%)</td>
<td>27004.74131</td>
</tr>
</tbody>
</table>

Figure 4. Descriptive statistics.
There are two elements in a DID analysis: the presence of a control and treatment group and the use of time.¹⁶⁰ In the case of this study, the dimensions are the size of the municipality and the time period. The size of the municipality determines if the variable is in the control group or the treatment group. The division between large and small municipalities was made because it is assumed that those large municipalities would be able to absorb the cost of compliance with the changes to the Public Records Law within their existing local administrative budgets. The hypothesis was that the smaller communities would see an increase in expenses due to compliance with the 2016 changes to the Public Records Law that went into effect on January 1, 2017.

The time periods that were utilized in this analysis were fiscal years 2016, 2017, 2018, and 2019. The treatment occurred between the fiscal years of 2017 and 2018. Budget years run from July 1 until June 30 of the named budget year. For example, the 2016 budget runs from July 1, 2015 to June 30, 2016. Since there are only two approved budget years after the treatment, the analysis included those years and the two years before treatment as a balance to the analysis. By utilizing four years, two before treatment and two after, a time trend can be established.

The dependent variable, budget, is measured in its relationship to the time period of the budget. This analysis examined fiscal impacts, which in the case of a municipality translates to the approved budget. Since the municipal Clerk is the individual entrusted to carry out the provisions of the change in law being examined, it is the Clerk’s budget that is used as the variable.

¹⁶⁰ ANGRIST & PISCHKE, supra note 69.
\[ \text{budget} = \beta_0 + \beta_1 \text{time} + \beta_2 \text{size} + \beta_3 \text{did} + \varepsilon \]

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<th>Coefficient</th>
<th>Variable</th>
<th>Interpretation</th>
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</thead>
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<td>(\beta_0)</td>
<td>Interaction Term</td>
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<tr>
<td>(\beta_1)</td>
<td>Time</td>
<td>Budget Year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>before treatment (0) after treatment (1)</td>
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<tr>
<td>(\beta_2)</td>
<td>Size</td>
<td>Size of municipality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>large (0) small (1)</td>
</tr>
<tr>
<td>(\beta_3)</td>
<td>DID</td>
<td>Dummy variable representing Time * Size</td>
</tr>
<tr>
<td>(\varepsilon)</td>
<td>Error Term</td>
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</tr>
</tbody>
</table>

*Figure 5. Coefficient explanations.*

Figure 5 shows the equation and variables used in the DID analysis. The *DID* variable was created by multiplying the *time* and *size*. *Time* is represented by a 0 if it is before the treatment date of January 1, 2017 and a 1 if it is after the treatment date of January 1, 2017. *Size* is represented by a 0 for the control group, those towns over 10,000, and a 1 for the treatment group, those under 10,000.

Figure 6 illustrates the parallel trend in a DID model.\(^{161}\) The control and treatment samples should both increase (or decrease) over time. The starting points, in the case of this data, of the average budgets are separated by the size class of the municipality. The counterfactual, the expected result in the absence of treatment, and the control group increase at the same rate over time. The difference between the counterfactual and the treatment is the difference in the differences.

\(^{161}\) *Difference-in-Difference Estimation, supra* note 77.
In Figure 6, size shows the selection bias. This illustrates the differences in the size characteristic of municipal budgets, on average, prior to treatment. The counterfactual shows that budget should trend up, regardless of whether it is in the control or treatment group. The DID, which is the change of the treatment minus the average change in control, is the difference in the differences.

The regression results, in Figure 7, show the budget of the control (larger municipalities) and treatment (smaller municipalities) variables both increasing over time; however, the did is a statistically insignificant amount. Figure 7 displays this increase visually; the treatment group increased by 13.5% from 2016 to 2019 and the control group increased by 12.61% over the same time period.

The DID analysis was run four times in the Stata/SE 15.0 environment. The first regression run of the data utilized the budget, time, size, and did variables cluster on Town. Linear regression assumes homoskedastic standard errors. Due to the possibility of heteroskedasticity, the standard errors were clustered at the town level.
<table>
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<th>3</th>
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<td>.08348678*** (.0249274)</td>
<td>6530.073*** (2333.266)</td>
<td>.038514** (.0190172)</td>
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<tr>
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<td>.3477</td>
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<td>.3484</td>
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</table>

(Std. Err. In parenthesis)

*p<0.10 **p<0.05 ***p<0.010

Figure 7. Regression results.

Time, in Figure 7, shows that budgets generally increase over time. The size shows that in general smaller communities have smaller budgets on average. In runs 2 and 4, as shown in Figure 7, the study shows a result where the natural logarithm of time is approximately equal to the percentage change over time. In Figure 7, the variation in the dependent variable, budget, is explained in the R-squared values. Run 4, run with the nlog of time, shows the greatest degree of explanation in variation at nearly 41%.

The P values in the did using the nlog of time indicates that there is no correlation between the size of the community and the budget value over time. Using the budget as the

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dependent variable, the results demonstrate that \textit{did} is statistically significant and negative as shown in runs 1 and 3 in Figure 7. Figure 7 also shows that in runs 2 and 4 that it is only when you take the \textit{nlog} of \textit{budget} that the statistical significance on \textit{did} disappear. The true effect of the \textit{did} values are so low that they are not significantly different from zero. Here, small towns show smaller than expected budget increases over time as a result of the change in the Public Records Law changes. As a result, the null hypothesis cannot be rejected.

This is an important point since the hypothesis of the study suggested there should be a correlation between these variables. Figure 7 demonstrates that there is either no effect or a negative effect on the municipal budgets from the changes to the Public Records Law. This is consistent with the assumption that it is easier for large municipal budgets to continue to grow larger. For example, increasing a large budget by the same percentage as the previous year, compared to a small budget, would allow the larger budgets to grow exponentially over time. The results of the DID analysis did not show an overall increase in spending; rather, it is likely that other programs have had to be cut back or eliminated in order to free up resources to comply with these additional state mandates.

\textbf{Alternative Analysis}

While the natural logarithm of the dependent variable \textit{budget}, \textit{nlog}, decreases the influence of outliers; the data could be further manipulated to remove outliers from both the control and treatment groups altogether. To do this, Cambridge could be removed from the control group because its budget for the Clerk’s department was over $800,000 for all four years, far above any other large municipality in the control group. For the treatment group, all municipalities with budgets over $150,000 in fiscal year 2019 could be removed. This would include the following municipalities: Blackstone, Brewster, Chatham, Cohasset, Dighton, Lenox,
Lincoln, Norfolk, Orleans, Rockport, Sherborn, Stowe, and Tisbury. With these outliers removed, the difference between the treatment and control over the four-year period would be approximately half of what it was with all the studied towns included: .46% versus .89%. The difference in the results from an $R^2$ value from a linear regression performed without the outliers, would be similar to a regression run with $nlog$, since $nlog$ reduces the influence of outliers in the original dataset.

**Findings**

There was a great deal of variability in the dollar amount of the budgets within size sub-populations, as reported by the Clerks. While the Clerk’s Department budgets reported by the treatment group communities may increase over time, any increase was not found to correlate to the increases reported in the control group. At this point, there is no evidence to suggest there is a difference as a percentage of the budget between the control and treatment groups. Therefore, data suggest that the Massachusetts municipalities with populations less than 10,000 persons may not experience a greater fiscal impact from complying with state mandates than larger municipalities in Massachusetts. Furthermore, the second question—whether the additional responsibilities of requiring a Records Access Officer impacted small municipalities more than larger municipalities, based on their total budget for expenditures and staffing needs—is still unresolved. The Clerk’s Department budgets generally rose by more than the 2.5% tax limitation; however, there is not enough information to correlate this greater than 2 ½% increase to the changes to the Public Records Law. In other words, there is no apparent correlation between the size of a municipality and its change in budget after treatment.

The results of the study counter the long-held assumption of some professionals that impacts of mandates are greater in small municipalities. In this study, there was either no
relationship or a negative relationship between the change in the Public Records Law and the Clerk’s department budgets of smaller municipalities. In other words, the size of the municipality did not significantly affect the impact of the Public Records Law mandates on municipalities. There could be further spatial research into whether geographic distribution plays a role in the effects of similar mandates.

Summary

Of the 351 municipalities in Massachusetts, 296 responded to the request for public information sent in the study. Of these responses, 206 were ultimately used in the analysis of the data. A DID analysis of these responses was run in the Stata/SE 15.0 environment using four different commands. The resulting regression table cannot explain Clerk’s department budget increases as being tied to the changes in the Public Records Law.

The results utilizing the \textit{nlog} showed that both large and small municipalities had an increase in the Clerk’s Department budget over time; however, there was no statistically significant explanation for the increases between the two sizes of municipality. The hypothesis of the study—that the increase in budget in response to the changes in the Public Records Law would be greater in smaller communities—appears to be incorrect. The percentage increase (natural logarithm) in budget over time was similar in both large and small municipalities in Massachusetts; this could be because utilizing the \textit{nlog} reduces the effect of any outliers. This suggests an affirmation of the null hypothesis.
Chapter 5: Conclusions and Recommendations

Municipal budgets are impacted by a variety of state mandates. However, there is little quantitative research on the effect of those compounding mandates on municipal operating budgets. The intent of this quantitative study was to determine if the Records Access Officer (RAO) mandate of the Massachusetts Public Record Law had a greater budgetary effect on smaller municipalities. The issues associated with the uniform application of state regulations through municipal mandates is explored through by analyzing the impact of a 2016 mandate. The study examined data collected from all 351 Massachusetts municipalities from fiscal years 2016-2019. The purpose of the study was to use a DID econometrics approach to explore whether the budgetary struggles of smaller municipalities are proportionally greater than in larger municipalities.

Property tax limitations in Massachusetts limit a municipality’s ability to raise operational funds. When state mandated policy implementation occurs alongside limited availability of funds, municipal policy is often left unaddressed. This is true because many of these state mandates have been unfunded or underfunded.

The study was built on an analysis of the Clerk’s department budgets of Massachusetts municipalities. The DID method is used when there is temporal point of treatment, such as the implementation of a policy, and data to compare before and after that point. It is also necessary, in the DID method, to have a treatment control group that did not experience the effect of the treatment.

To meet the legislative intent of a regulation, states use mandates as a tool to implement the state’s legislative agenda. This method is sometimes used to pass on the costs of the policy implemented from the state budget to the local jurisdictions. While this trickle-down effect can
be used to reduce the state’s budget, local jurisdictions must have a balanced budget, so the mandates present a burden on the municipal budget.\textsuperscript{163}

At times, the compounding effects of multiple mandates create a complex struggle between the state’s objectives and the municipality’s authority to set its own agenda. This phenomenon is further compounded by the state’s limitation on a municipality’s ability to raise and appropriate taxes.\textsuperscript{164} Limiting revenue generation leads to the need to make choices in the level of service that can be provided to citizens by their local government. In Massachusetts, municipal tax revenue generation is limited by Proposition 2 ½.\textsuperscript{165} Simplified, Proposition 2 ½, enacted in 1980, limits a Town/City to raising 2 ½ percent more in taxes than the year before.

The limitation on property tax generation can be considered coerced federalism.\textsuperscript{166} This concept refers to a situation in which the states coerce the cities and towns into action or inaction through policy mandates. The state coerces towns/cities into action through the threat of granting/removing state funding; coercion is also accomplished through the imposition of penalties for inaction.

One set of mandates in Massachusetts that requires municipalities to enact local policies was the changes to the Massachusetts Public Records Law that took effect in January 2017. These changes include the requirement for municipalities to have at least one RAO. The mandate required this individual or individuals, acting as the RAO, to coordinate and manage efforts to comply with the Massachusetts Public Records Law. This law specifically names the Town/City

\textsuperscript{163} \textsc{Youngman Youngman} \& \textsc{Joan M. Youngman}, A Good Tax: Legal and Policy Issues for the Property Tax in the United States (2016).
\textsuperscript{164} \textit{Id}.
\textsuperscript{165} Massachusetts Proposition 2 1/2, \textit{supra} note 13.
\textsuperscript{166} Galle, \textit{supra} note 71.
Clerk as a RAO. Other RAOs may be appointed by the Chief Executive Officer of the municipality.167

At the municipal level, the Town/City Clerk is by default a RAO whose job is to manage public records requests.168 This management does not include being the depository or provider of the records, it only requires the RAO to ensure that requests are responded to in compliance with the time constraints provided in the law and that the appropriate fees are charged for the reproduction of those records.

This legislative requirement prompts the question of whether small municipalities realized a greater fiscal impact from this mandate than did larger communities. The predominate, yet anecdotal, belief is that, the smaller the budget, the more constrained the town’s ability to provide services. Some mandates require the same actions, or incur the same costs, regardless of the size of the municipality.

In order to explore these potential phenomena, the study collected data on the municipal populations from the Annual Street Listing and Clerk’s Department budgets for two years before and two years after the effective date of the state mandate. The Annual Street Listing was used as a surrogate for the number of records in a city or town. The philosophy behind this decision was that, the more residents there are, the more records a town would have. The Annual Street Listing would also show any significant abrupt changes in population that would not be captured by the federal decennial census. This change in population was examined to make sure there was no outside explanation for the increase in the municipal Clerk’s budget.

167 MASSACHUSETTS LOCAL MANDATE LAW, supra note 14.
168 MASSACHUSETTS PUBLIC RECORDS LAW, supra note 25.
The budget data for the Clerk’s department approved expenditures was collected for a four fiscal year time period. This provided the ability to analyze a trend in the increase, or decrease, in the Clerk’s budget. The data was collected for two fiscal years before and two fiscal years after the required implementation date of the changes to the Public Records Law in January 2017.

The data that was collected was then used to perform a DID analysis. The study used towns with Annual Street Listing populations greater than 10,000 persons as a control group, and those with Annual Street Listing populations less than 10,000 persons as the treatment group. The hypothesis tested in this study was that larger communities could absorb the administrative costs of this mandate in their existing budgets while the mandated requirements would further overburden smaller communities.

The Massachusetts Local Mandate Law provides that mandates on local government must be funded by the state unless they only contains “incidental local administration expenses.”\textsuperscript{169} This study, which utilized the larger communities as a control group, assumed that, in those communities, the cost of implementation of the changes to the Public Records Law only contained these incidental administrative costs.

**Summary of Findings from the Data**

Based on the application of a DID analysis of the data collected in this study, there was no significant difference between the budgetary increases of the Clerk’s Department in Massachusetts municipalities in smaller communities and larger communities. There was only a small difference in the percentage of budget increase over time between the large and small communities.

\textsuperscript{169} MASSACHUSETTS LOCAL Mandate Law, supra note 14.
communities. This means that the trend line of budget increase over time in both community size classes was similar, with no significant difference, as shown in Figure 9.

Figure 8. Budget increase trend.

As many responsibilities of a Town/City Clerk may impact their budget, isolation of the impact of a single mandate is difficult. This constituted a limitation to the study outcomes. When the Clerks I corresponded with indicated an explanation for large swings in the budget, such as combination of budgets with another department or shifts in the accounting for personnel, their data was excluded from the analysis.
Discussion of the Findings

Past studies have not differentiated municipalities based on sub-populations. The sub-populations of this study were based on size of the population. As the review of the literature revealed, the application of quantitative research methods to the problem with mandated costs is difficult. The isolation of the effect on a singular mandate was problematic. In some cases, the Clerks identified reasons for significant budget fluctuations outside of the mandate under investigation and, as a result, those communities were excluded from review.

This study examined the relationship of budgets in response to state mandates in Massachusetts. The literature suggested that further quantitative analysis was needed to establish the true impacts of such mandates on communities. In Massachusetts, this relationship is further impacted by the statutory limitations on the property tax levy available to municipalities.

Proposition 2 ½ limits the ability of a municipality to generate revenue by limiting the property tax revenue that can be levied. In this way, a municipality must shift expenditures to fund compliance with unfunded and underfunded state mandates from one budget area to another. Since revenue has an upper limit efficiency, and compliance, can only be achieved by shifting resources. This study was aimed at capturing the shift of available funds, if any, to the Clerk’s department.

Figure 10 shows this effect of mandates and tax limitations on municipal budgets. The figure suggests that there is a careful balancing act that must occur between property tax limitations and state mandates on the part of municipalities. The relationship between municipal services, including those that are mandates and Proposition 2 ½ taxation policy, was explored

171 MASSACHUSETTS PROPOSITION 2 1/2, supra note 13.
shortly after enactment by Susskind and Horan, and in later years by Youngman. These scholars have found that, while municipal property tax bills were reduced, the resulting reduced municipal appropriations caused detrimental impacts to municipal services and public relations.

Figure 9. Municipal Budget Influence Model.

The hypothesis in the study was that smaller communities would realize a greater impact from the Massachusetts Public Records Law mandates than large communities. This study suggests that the budget balancing act is similar in large and small communities and the increases seen in this study were more similar, despite variations in community sizes. One example of the similarity is that Chesterfield, with a population of 1,226, and Somerset, with a population of 17,264, according to the 2019 Annual Street Listing, both had a 15% increase in the Clerk’s department budget over the four-year period examined.

Most municipal budgets in Massachusetts increase over time, within the allowable constraints of Proposition 2 ½, including the budgets of the Clerk’s departments. However, the data in this study did not reveal the cause of those increases in Clerk’s department budgets to be specific to the RAO requirement of the Massachusetts Public Records Law. There are multiple potential reasons for this, including that the financial impact of this mandate may be too small to be singled out as the reason for an increase in the expenditures. As budgets increase over the four years examined in this study, it becomes more difficult to single out specific causes for the increase. Municipal budgets that grow at least by 2 ½ percent per year create a compounding disparity in size between large and small communities’ budgets.

It may be that individuals make a conscious decision concerning what size community to live in based on the size of its budget, judging this decision based on the tax rate in a given municipality. It is possible for individuals to move from municipalities with large budgets to the smaller municipalities to reduce their individual tax obligation. This phenomena what not measured by this study and has an unknown effect.

**Implications for Research and Practice**

Several implications from this study’s findings may affect both future research and current regulatory practices. While the findings of this study did not align with the current general assumptions of the municipal management community or this study’s stated hypothesis, they do suggest future directions for scholarly research and legislative practice and research.

**Geography.** The geographical clustering of the small communities addressed in this study may indicate a generative direction for future research. It would be interesting to study

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173 Municipal Databank (Data Analytics), supra note 6; the budgetary increases in the Clerk’s departments are show in all but 31 of the cities/towns represented in Appendix A.
whether geography, rather than community size, impacts the effect of state mandates in Massachusetts. Figure 11 shows the U.S. Census Bureau’s Census Viewer of the total 2010 population in Massachusetts. The darker the cluster, the greater the population and therefore the greater the population density. As Figure 11 shows, many of the smaller towns are west of Route 495. While there are some areas of denser population in that geographic area as well, most of the regions with greater population density are in the Boston metro area, which is east of Route 495.

![Figure 10. Census viewer of total 2010 Massachusetts population.](image-url)

It would be useful to see whether the geographical location of a given municipality plays a role in the fiscal impact of mandates. Often, the clusters of density are communities that “serve” economic functions to the less dense “bedroom” communities. This study did not try to explain that particular economic relationship of different sized communities; a spatial analysis may be well suited to explain the financial relationship between service centers and bedroom communities.
It would be important in such a study to find a mandate that was evenly applied over geography to isolate the budget as the element being impacted. Such an analysis should also include a labor market analysis to examine the commuter-sheds of the smaller municipalities. In addition, a commercial service analysis would allow a geographical study to understand the spatial range individuals travel to participate in the economy of a region.

This type of spatial study would require additional data collection on the spatial relationships of municipalities and their economies. Some of that data is available from MassGIS in Massachusetts, or similar agencies in other states.\textsuperscript{174} Some of the data would need to be collected by secondary data analysis and survey.

\textbf{Variables.} Similarly, one of the limitations of this study was the potential for other impacts on the Clerk’s budget outside of the requirements of the Public Records Law. If a state mandate could be more isolated in a single line of a departmental budget, it may facilitate a study that could draw broader conclusions. For example, in the case of Early Voting in Massachusetts, impacts can be isolated to the municipality’s election budgets, this allowed the DLM to more easily make a cost determination of that mandate.\textsuperscript{175} The difference between Early Voting and the RAO mandate is that the RAO is intermingled with other clerk functions, while voting is often its own departmental line.

\textbf{Practice Implications.} This study seems to suggest that the Massachusetts Legislature may be correct in not further differentiating how communities are mandated to act by law, based on their size. Further research on other mandates over longer time periods would be practical to

determine whether the conclusions of this study are correct and similar in the cases of other mandates. The Massachusetts Division of Local Mandates (DLM), under the State Auditor, may be well served to verify this study’s findings by authorizing further research into municipal budget responses to state-imposed mandates, such as those impacting education funding and environmental protection.

Currently, the DLM has two major functions: the response to petitions for the determination of applicability of the Local Mandate Law and the creation of Municipal Impact Studies in response to proposed state legislation. It may be useful for the state legislature to consider an expansion of the functions to include broader research on municipal and state interactions under mandates.

**Conclusion**

It is clear that there is a need for further research and the consideration of additional factors that may explain differences in the fiscal impacts of mandates. One of these factors may be geography, and the clustering of populations in regions, rather than the size of individual municipalities. However, the findings of this study indicate that the popular assumption by small communities and municipal advocacy groups that the budgetary plight is more difficult in small, rather than large, communities may be unfounded.
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### Appendix: Data Table

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