FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

WHAT FACTORS INFLUENCE MUNICIPALITY EXTERNAL COMPLIANCE COSTS? A FOCUS ON CONNECTICUT MUNICIPALITIES

A dissertation submitted in partial fulfillment of

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by

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To: Interim Dean William Hardin
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This dissertation, written by Jacqueline T. Jamsheed, and entitled What Factors Influence Municipality External Compliance Costs? A Focus on Connecticut Municipalities, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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DEDICATION

I dedicate this work to my husband, John deRham, and our daughter, Zora deRham, whose love and support allowed me to pursue this dream.

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I send my appreciation to my sister Juliet Jamsheed for her humor during this process.

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ABSTRACT OF THE DISSERTATION

WHAT FACTORS INFLUENCE MUNICIPALITY EXTERNAL COMPLIANCE COSTS? A FOCUS ON CONNECTICUT MUNICIPALITIES

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Professor George Marakas, Major Professors

As local governments assess the financial impact of recent pressures on their financial stability, identifying possible opportunities for cost avoidance is of interest to town management, elected officials and taxpayers. The cost of compliance, and the drivers contributing to this cost, have been largely overlooked in the study of local governments, resulting in little awareness of the cost to taxpayers for municipal assurance services. This study focuses on an area of expenditure that is linked to a required component of a locality's daily operations, the financial statement external audit.

There is a paucity of databases capturing town finances, which would support quantitative research on municipal financial management and reporting. This lack of easily accessible state and local fiscal data has limited academic research in the municipal sector, even though it represents a large portion of the United States economy. To fill the gap in the current literature, this study has both developed a database consisting of independent variables on key financial indicators that impact a town's fiscal health and operational efficiency and contacted each town's financial leader to validate the

dependent variable data source of audit fees for accuracy and completeness. The study also utilized this contact point to gain insight into each town's audit fees and gather the most recent audit fee data; thus, eliminating reliance on third party sources that have the potential of inadvertently eliminating or adding reported fees that are not considered part of the core audit fee cost structure. An interview protocol of subject matter experts (SME) was used to collect independent variables potentially linked to the cost of external compliance. The SME list supplements the listing gathered from the literature review, and further strengthens the external validity of the model.

The novelty of this research is of interest to reader and the community: it not only analyzes the factors impacting external compliance cost, but also creates the database needed for such analysis. A detailed examination of each town's Comprehensive Annual Financial Report (CAFR), state-wide town-specific databases and supplementary finance staff interviews form the core of the database.

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"No Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law; and a regular Statement and Account of the Receipts and Expenditures of all public Money shall be published from time to time." (U.S. Constitution, Article I, Section 9)

"If men were angels, no government would be necessary. If angels were to govern men, neither external nor internal controls on government would be necessary." (Madison, 1788)

I. INTRODUCTION

Over the past 240 years, the United States has grown to be one of the most powerful nations on the planet with an unrivaled economy. In conjunction with the growth of the United States private sector economy, an economy founded on the principles of free market, there has been an equally striking growth in the public sector. Many millions of Americans rely on their local governments to provide services such as school bus pick-up for their children, police protection of their communities and environmental monitoring of businesses which utilize their public spaces. Local governments have been a staple of the United States government and governance structure since its founding with citizens strongly identifying with their hometown and home state. Even with this strong identification with one's "roots", most Americans have little understanding of what local government is, how it is funded, how it is managed and how it impacts their daily lives.

There are a total of 90,126 local entities in the United States (U.S. Census Bureau, 2019) with an aggregate annual spend of approximately $3.1 trillion in 2017 (Urban Institute, 2020). Many local entities receive federal and state aid, in addition to competing in the bond markets, to raise needed post-tax funds to close the gap between tax collections and operating expenses. In FY2019, the Federal Government provided

state and local governments approximately $721 billion in federal grants (Tax Policy Center, 2020) . These grants represented approximately 16 percent of the Federal Government's FY2019 budget and provided roughly one-quarter of states and localities total revenues. In addition to grants, the almost $4 trillion municipal securities market affords state and local governments access to capital for various infrastructure projects that are crucial to the well-being and quality of life of their citizens (Municipal Securities Rulemaking Board, 2020). To compete for outside funds towns must provide audited financial statements prepared according to the financial reporting conventions as outlined in the Generally Accepted Accounting Principles (GAAP) for government entities, known as Government Accounting Standards (GASB) (Federal Accounting Standards Advisory Board (FASAB), 1993; Office of Finance Municipal Finance Services, 2018). See Appendix 1 for a listing of the authoritative standards.

What is the Problem?

Municipal audited financial statements provide an assessment of a city's economic health and solvency and are utilized by constituency groups including grant making entities, ratings agencies, and bond markets. Sound business practices, as validated by audited compliant financial statements, are a key aspect of town operations, and a prerequisite for external funding. The cost of compliance, and the drivers contributing to this cost, is the focus of this research.

There is a paucity of databases capturing town finances; databases which would support quantitative research on municipal financial management and reporting. Financial statement data of publicly traded companies can be found on EDGAR and CRSP-COMPUSTAT; but no similar comprehensive data sources exist for the over 19,500

incorporated towns in the United States (https://worldpopulationreview.com, 2020). Data on states and localities can be found on individual state agency web sites and specific town site; however, there are no centralize state databases that house all relevant state and local fiscal data. This lack of easily accessible state and local fiscal data has limited academic research in the municipal sector, even though it represents a large portion of the United States economy.

As a part of their operational mandate, government entities are expected to provide transparent, timely and informative reporting designed to educate and update the various groups that they serve. GASB Concepts Statement No. 1 says that the objectives of financial reporting in the municipal sector are provide the public with the needed information to accurately assess the "level of services" that can be offered by the governmental entity and its ability to meet any and all of its "obligation as they become due" (Governmental Accounting Standards Board, 1987).

To provide assurance in meeting the requirements of the GASB municipalities hire external firms to conduct audits of the financial records. As outlined in GASB Concepts Statement 2 (Governmental Accounting Standards Board, 1994), Paragraph 15, the users of local and state financial and operational reports are: the general citizenry, citizenry as service recipients, buy and sell side analysts, investors and creditors, elected officials and appointed officials. Each of these groups utilize state and local reporting data in a variety of ways, see Figure 1 (Association of Government Accountants , 2012):

Figure 1- Uses of Government Reporting Documents.

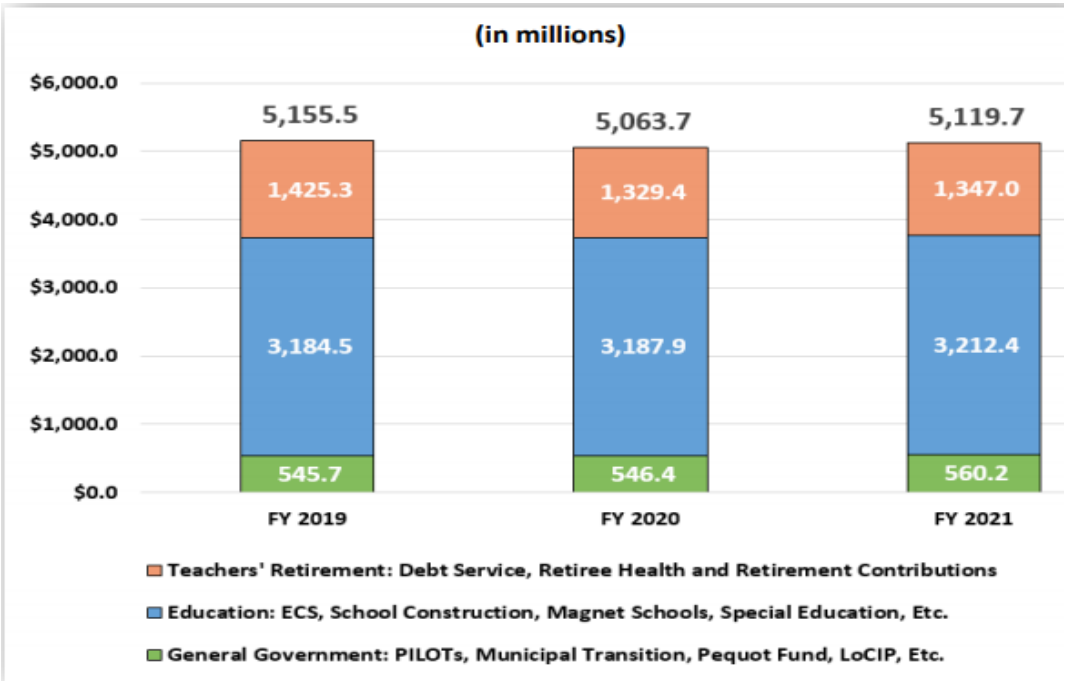
Source: Association of Government Accountants.

Towns, including those in Connecticut, are required to produce audited financial statements that are confirmed for accuracy, timeliness, and transparency by an external audit firm. The cost of these required assurance services is a line item on a town's budget; however, other than anecdotal renderings there is little empirical research on the cost drivers for these services.

According to the U.S. Census Bureau, in 2017 Connecticut has a total of 169 municipalities (see Appendix 2). Three out of every five dollars these localities spend goes to education (Thomas & Kara, 2017) with the remainder spent on residential services. In addition to tax collections, towns rely on federal aid, state aid and bonding to fund constituent services.

The Single Audit Act of 1984, as amended in 1996, states that state and local governments expending more than $500,000 per year in federal financial assistance must have a single audit for the fiscal year (The Committee on Government Reform and Oversight- United States 104th Congress, 1996). In addition, any municipality that spends more than $100,000 in State of Connecticut financial assistance must have a state single audit conducted by an external auditor (State of Connecticut Office of Policy and Management Office of Finance Municipal Finance Services, 2018). This single audit is comprised of a financial audit, a test of internal controls, and a compliance audit. Figure 2, below, provides an overview of the general grant type and amounts awarded to towns as outlined in the most recent Governor's budget proposal:

Figure 2- Grants by Type- Connecticut FY 2019-2020.

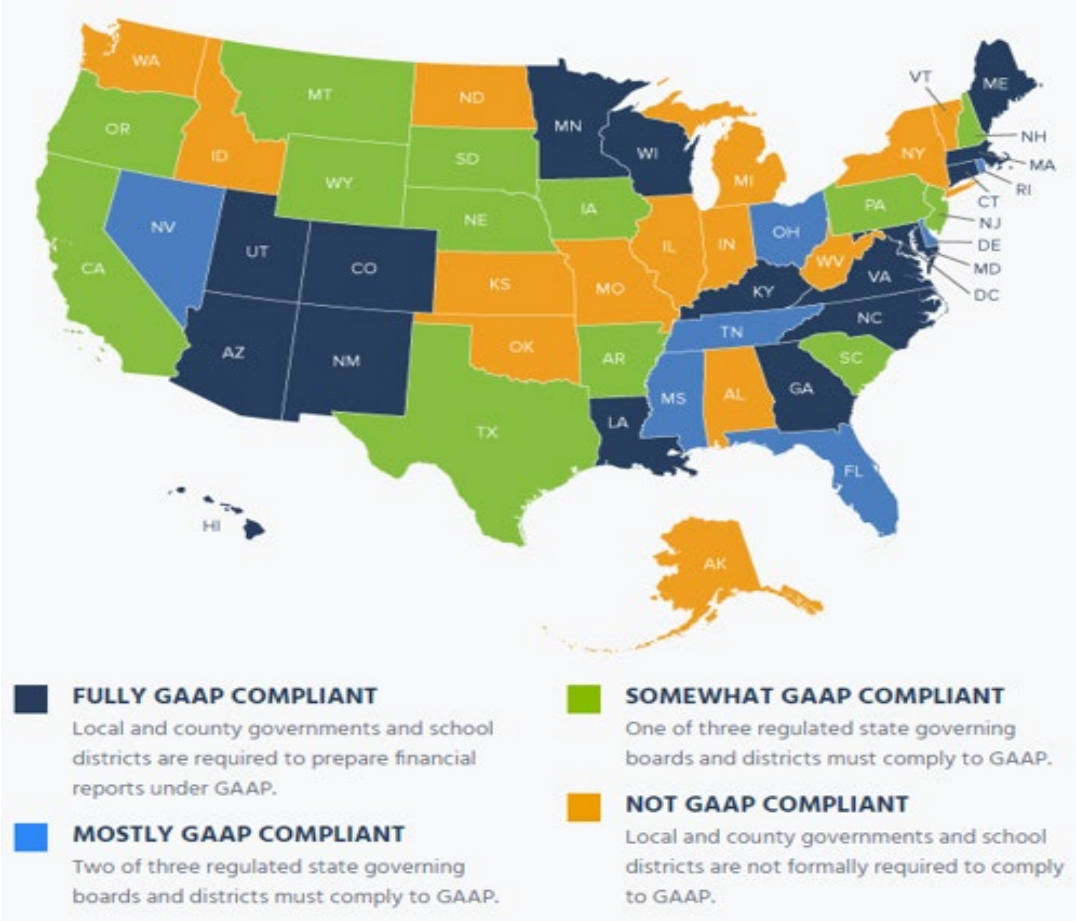


Source: Office of Management and Budget, 2020.

To compete in the national grant, federal aid and bond markets, Connecticut is one of the States that is fully GAAP compliant. Figure 3 provides a view of GAAP

compliance by state. To be fully GAAP compliant requires towns to utilize a set of financial statements called a Comprehensive Annual Financial Report (CAFR) which goes beyond a single year annual budget to financials that contain "the financial position of the jurisdiction that result from prior years' financial activities" (Harper & Ritz, 2018).

Figure 3- Grant Compliance by State.



Source: Government Accounting Standards Board, 2020.

So What? Why Study External Compliance Costs at a Municipal Level?

In addition to tax collections, Connecticut towns rely on grants, aid and borrowing to fund expenditures. In fiscal year ending 2018, Connecticut municipalities had total expenditures and other financing uses totaling almost $16 billion. To cover this spend the

municipalities collected approximately $11 billion in property taxes with intergovernmental sources (federal and State) covering the remainder. During this same period, Connecticut municipalities had a net pension liability of nearly $4.7 billion, bonded long-term debt of approximately $9.2 billion and an annual debt service of almost $1.5 billion (Office of Policy and Management (OPM), 2020). To compete in the grant and bond markets, Connecticut towns must provide audited financial and pension liability statements prepared in accordance with GAAP and GASB guidelines (Government Accounting Standards Board, 2020). There is a cost associated with auditing and preparing these required attestations. Through detailed review of the financial statements can the cost drivers impacting external compliance be identified. By identifying these compliance cost drivers, local governments can better identify possible opportunities for cost avoidance and make the needed changes to reduce compliance expense. As a result, this study focuses on an area of expenditure that is linked to a required component of a locality's daily operations, the external financial audit.

It is noted that past studies have focused on specific influencers of audit fees such as entity size, government type or auditor size (Simunic, 1980; Lowensohn, Johnson, Elder, & Davies, 2007; Elder, Lowensohn, & Reck, 2015; Marques & Pinto, 2018). Other studies have looked at multiple fee determinants and have relied on town self-assessments of their audit cost drivers via survey responses (Rubin, 1988; Ward, Elder, & Kattelus, 1994). While both these methods provide useful empirical information, focusing on specific fee drivers can limit the findings scope while reliance on survey responses can lead to potential response bias.

Also, the research conducted in Connecticut can have national implications and be of interest to future researchers of governmental compliance. Connecticut resembles the national landscape with regards to the challenges in accessing fiscal data and in creating a usable analysis dataset, making it a good representative example to study. The findings from this study, which utilize the Connecticut example, can be generalized to identify and collect data on independent and dependent variables in other states and municipalities. The Connecticut research can also be used as a blueprint for how to gain insight on the variables effecting external audit fees.

Research Question

The novelty of this research is of interest to both government entities and research communities. This research not only conducts the analysis of the factors that impact external compliance cost; it also creates the database needed to conduct the analysis through a detailed examination of each town's CAFR and supplementary finance staff interviews. The requirement to create a database has limited the current research to my home State of Connecticut. Due to the commonality of financial reporting across municipalities, the research processes utilized for Connecticut can be applied to other states. Determining the independent variables driving the cost of external compliance and then inputting these variables into a single database allows me to answer the research question: what factors influence municipality external compliance costs in Connecticut municipalities?

II. LITERATURE REVIEW

Private Versus Government Entity

The two main accounting standard setting bodies, the Financial Accounting Standards Board (FASB) and the GASB have defined a governmental organization as (The FASB/GASB Definition of Governmnet, 1996), "Popular election of officers or appointment (or approval)… have the ability to issue directly debt that pays interest exempt from federal taxation…". A Governmental entity serves the needs of its constituency in the same fashion as a private entity, although it utilizes different reporting methods and accounting standards to provide the required visibility into its daily operations (Copley, 2020). Both types of entities develop reporting mechanisms to provide timely and transparent insights into their financial health along with additional data on the operational, financial, and investing activities. The financial reports of a private business enterprise serve the needs of current and potential investors and creditors along with the various regulatory bodies that provide oversight on behalf of the public. Governmental entities service the needs of their citizenry, elected representatives, and current and potential creditors. The two different end users of private and governmental financial information also dictate the general purpose of each of these financial statements. Users of governmental financial reporting emphasize transparent oversight of public resources and accountability of how these resources are used. Users of private entity financial statements, by contrast, are primarily concerned with data sufficient to make investment and credit decisions.

Although states and cities, by the powers granted to them by the United States Constitution, are in many ways sovereign of the federal government, they have chosen to

utilize standard reporting mechanisms as to participate in the lucrative grants market and to compete in the bond market. The CAFR is produced annually to provide the required comparable, detailed and transparent look into a municipalities financial health (Burnett, 2017). The CAFR is used by grant-making agencies, the bond markets, legislators, and constituents to evaluate an entity's financial health and is audited by an external accounting firm to assess compliance with applicable laws and regulations.

The Role of Governmental Accounting Standards

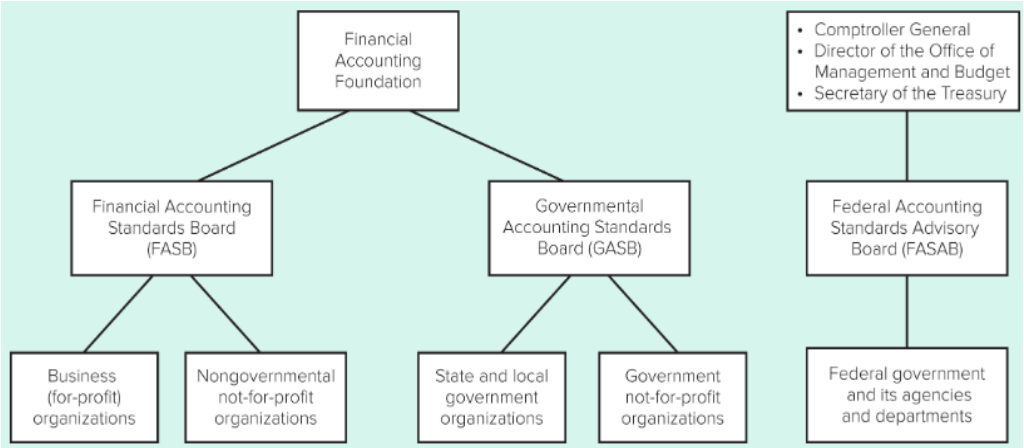
Following several high-profile city debt defaults in the 1970s such as New York and Cleveland, financial oversight entered the state and local reporting regimen. The timeline in Figure 4 below, highlights key regulatory milestones relating to state and local government financial activity oversight (Foltin, 2017):

Figure 4- State and Local Regulatory Milestones.

Source: Adopted from Foltin, 2017.

Figure 5 below outlines the financial reporting oversight process and organization structure of the governing bodies as they related to the public sector (Reck, Lowensohn, & Neely, 2019):

Figure 5- Financial Reporting Oversight Structure.



Source: Adopted from Reck, Lowensohn and Neely, 2019.

The GASB

The GASB was created in 1984 as the successor to the National Council on Governmental Accounting (created in 1979), "to bring cohesion to what was then a patchwork quilt of governmental accounting practices." Critics and advocates alike agree it has achieved that objective and, in the process, has improved the quality, transparency, and comparability of the government financial information" (Marlowe, 2007). The GASB is recognized as the official source of accounting guidance for state and local governments. State and local governments that follow GASB guidance demonstrate a high level of accountability, transparency, and stewardship over public funds. Following GASB guidance is preferred by creditors since it allows for comparability across reporting years and ease of comparison with other compliant municipalities (Donahue & Hellenbrand, 2002).

The Role of Federal Grants in Standardized Reporting

> Full Faith and Credit shall be given in each State to the public Acts, Records, and judicial Proceedings of every other State. And the Congress may by general Laws prescribe the Manner in which such Acts, Records and Proceedings shall be proved, and the Effect thereof. Article IV, Section 1 of the United States Constitution (Article IV, Section 1)

The power structure within the United States is such that states, and the federal government have exclusive and concurrent powers, creating a systematic and continual negotiation over the balance of power. Since the founding of the Republic, the federal government has utilized federal aid programs to the states and localities as a means of encouraging the adoption of favored policies. Understanding the history of federal grants provides insight into why localities have adopted unified financial reporting.

The role of the federal government: 1776-1860

In the period after the American Revolution and before the Civil War (1776-1860), America was a rural nation with many of her citizens living on farms and rarely venturing out of their hometown, let alone traveling to another state. This era in government was called "dual federalism" (Mount, 2010) and had its roots in the concept that the States had the primary and final authority in the governance of domestic affairs (Ablavsky, 2019). The federal government found peripheral means of exerting its influence on states mostly through land grant measures such as the Land Ordinance of 1785, which generated revenue by authorizing the sale of land acquired from Great Britain after the Revolution (Congressional Research Service, 2019). The Northwest Ordinance of 1787 reauthorized land grants for public education, and from 1808 to 1910

the United States Congress utilized its power of land grants to newly accepted states to raise funds and to allocate certain tracts for federally designated uses (Orfield, 1915). Overall, the period of 1776-1860 saw a federal government that was deferential to States' rights and did very little to exert its influence (Scheiber, 1987).

The role of the federal government: 1860-1932

With the end of the Civil War came the end of the concept of secession, a term that was first used in 1776 by South Carolina when it threatened separation if the Continental Congress went ahead with taxing colonies on the basis of a total population which included slaves (History.com, 2019). Reconstruction saw an active federal presence in domestic policy. However, with the end of Reconstruction came several Supreme Court rulings in support of State's rights and limited federal power over civil rights and interstate commerce (Robert Kent Sutton; John A. Latschar, 2016). Even with the limited federal government role, some key grant legislation was passed that in totality paved the way for the current grants-in-aid system, set conditions to receive and maintain funding and allow for federal government oversight into how funds would be utilized (Congressional Research Service, 2019):

- The Morrill Act of 1862 which established land grant colleges and universities
- The Federal Act to Promote the Education of the Blind (1879) which appropriated $250,000 to create a continuous source of income to purchase teaching supplies for the blind. This act marked the beginning of the modern grants-in-aid system
- The Hatch Act of 1887 which provided states with funds to establish agriculture experiment stations
- The Weeks Act of 1911 that provided funding to prevent forest fires

The role of the federal government: 1932-1960

The period of 1932 to 1960 was known by scholars as the era of cooperation, where the power of the government was shared equally and as required by the event(s) at hand (Morris, 2006). President Franklin Delano Roosevelt oversaw a dramatic expansion of the Federal Government with an unprecedented growth in aid to states and localities through funding for federal grants-in-aid programs (Congressional Research Service, 2019). The Social Security Act of 1935, in addition to establishing a federal presence in social welfare, established federal oversight via auditing requirements on grant programs. After World War II many new grants were established to support infrastructure projects with the most prominent being the Federal-Aid Highway Act of 1956, which supported the creation of the interstate and defense highway system.

The role of the federal government: 1960-1980

President Lyndon Baines Johnson, along with Congressional leadership, introduced legislation such as the Civil Rights Acts of 1964, 1965 and 1968 along with the Great Society efforts ushering in a tripling in the number of federal grants to states and cities. These grants, known as categorical grants, were highly restrictive and designed to direct state and local policy towards a path desired by the Federal Government. Presidents Richard Nixon and Gerald Ford moved away from categorical grants in favor of the less-restrictive block grants to allow for added flexibility of spending direction at the state and local level (Congressional Research Service, 2019). The move towards a block grant system was met with resistance from Congress as they favored federal government control over the grant process via utilizing the power of the purse to influence state political policy. Many scholars have labeled the 1970s as the

beginning of "coercive federalism" (Kincaid, 1990), where rather than the "carrot" approach of federal assistance, the "stick" of funded and unfunded federal mandates was used.

The role of the federal government: 1980-2000

The election of President Ronald Reagan came at a time when the public was beginning to distrust government interference and questioning the effectiveness of governmental programs. During the first two years of the Reagan presidency, for the first time since World War II, federal government grants to states and localities were reduced. The Reagan administration consolidated 77 categorical grants and two block grants into nine new block grants (Congressional Research Service, 2019). However, this contraction did not last, and by 1984 the number and amount of grants resumed their upward trajectory. Based on Table 1 below, there seems to be little historical evidence to support an assumption that the number of federal grants to State and local governments will decrease in the foreseeable future.

Table 1- Outlays for Federal Grants to State and Local Governments, by Function, Selected FY1902-FY2019.

(nominal $ in millions)

Fiscal Year	Total	Health	Income Security	Education, Training, Employment and Social Services	Transportation	Community and Regional Development	Other
2019 est.	$749,554	$453,862	$114,169	$67,500	$67,211	$21,917	$24,895
2018	696,507	421,117	110,649	60,591	64,836	19,089	20,225
2017	674,700	406,946	107,400	61,553	64,783	14,797	19,221
2016	660,818	396,666	104,769	60,867	63,861	15,298	19,357
2015	624,354	368,026	101,082	60,527	60,831	14,357	19,531
2014	576,965	320,022	100,869	60,485	62,152	13,232	20,205
2013	546,171	283,036	102,190	62,690	60,518	16,781	20,956
2012	544,569	268,277	102,574	68,126	60,749	20,258	24,585
2011	606,766	292,847	113,625	89,147	60,986	20,002	30,159
2010	608,390	290,168	115,156	97,586	60,981	18,908	25,591
2000	285,874	124,843	68,653	36,672	32,222	8,665	14,819
1990	135,325	43,890	36,768	21,780	19,174	4,965	8,748
1980	91,385	15,758	18,495	21,862	13,022	6,486	15,762
1970	24,065	3,849	5,795	6,417	4,599	1,780	1,625
1960	7,019	214	2,635	525	2,999	109	537
1950	2,253	122	1,335	150	465	1	180
1940	872	22	341	28	165	0	316
1930	100	0	1	22	76	0	1
1922	118	0	1	7	92	0	18
1913	12	0	2	3	0	0	7
1902	7	0	1	1	0	0	5

Source: U.S. Office of Management and Budget, 2020.

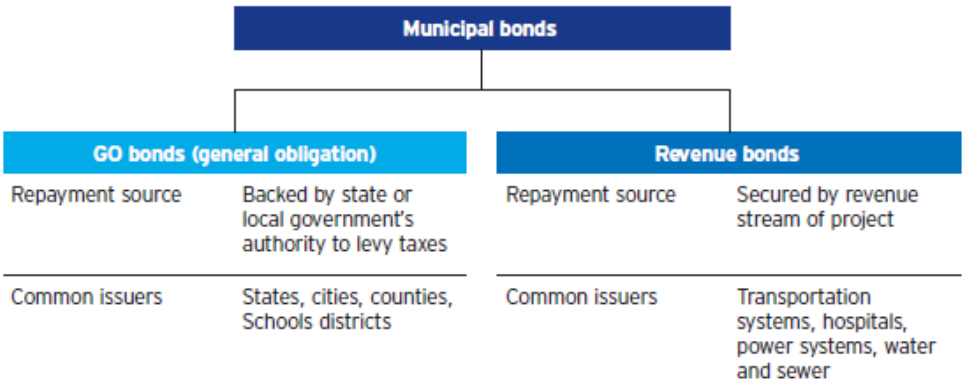
The Role of the Municipal Bond Market in Standardized Reporting

"The powers reserved to the several States will extend to all the objects which, in the ordinary course of affairs, concern the lives, liberties, and properties of the people, and the internal order, improvement, and prosperity of the State." James Madison, Federalist Number 45

A municipal bond, also known as a Muni Bond, is a debt security issued by a state, municipality, territory, special agency or eligible not-for-profit to finance public projects. For over 200 years, municipal bonds have played a key role in the growth and development of the United States infrastructure, from the most local of activities such as funding a town's elementary school, to a project with global reach such as the

construction of an international airport in a major metropolitan city (Invesco, 2020; Ross, 2019; Backman, 2019). Municipal bonds fall into one of two categories: general obligation bonds that are backed by the full faith and credit of the issuing state and revenue bonds that are secured by a specific revenue source. Below, Figure 6 provides an overview of each type of bond (Invesco, 2020):

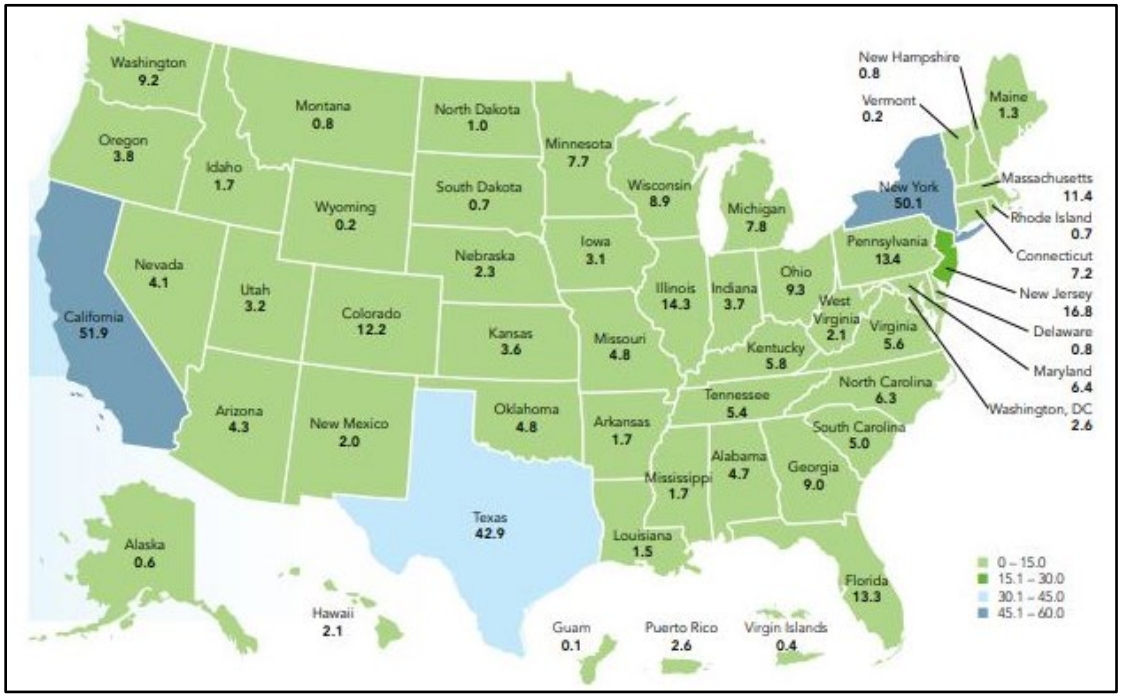
Figure 6- Municipal Bond Types.



Source: Adopted from Invesco, 2019.

Today's municipal bond market has $3.8 trillion of debt outstanding with almost two thirds of these securities being held by individual investors either directly or through a mutual fund (Invesco, 2020; Perlovsky & DeMarco, 2018; Ross, 2019; The Municipal Securities Rulemaking Board, 2019). As seen in Figure 7, the activity level of the municipal bond market is present in all 50 States (The Municipal Securities Rulemaking Board, 2019):

Figure 7- Bond Activity- 2019.



Source: Adopted from Thomson Reuters, 2019.

Federal disclosure requirements for localities

States are the independent and autonomous governing body for their territory; only they have the legal right to administer activities that originate within their geographic area (United States Constitution, Amendment X; Petersen, 1977). As such, federal law prohibits the SEC from "requiring a municipal issuer to file any application, document, or report with the Commission before the sale of the issuer's securities" (Securities and Exchange Commission, 2018) and municipal securities are exempt from any federal securities laws pertaining to registration or reporting that apply to non-municipal securities. The federal government exerts its influence on localities in the area of antifraud provisions of the federal securities laws through SEC enforcement "against any person or entity, including municipal issuers, who violate these antifraud provisions" (Securities and Exchange Commission, 2018).

Federal oversight of the municipal markets is managed by the Municipal Securities Rulemaking Board (MSRB) and the Financial Industry Regulatory Authority (FINRA). Federal bank regulators also oversee aspects of the municipal securities market (The Federal Reserve, 2020; The Financial Industry Regulatory Authority, 2020; Municipal Securities Rulemaking Board, 2020). In addition, all brokers, dealers and advisors who sell and trade municipal securities must register with the SEC and, per SEC Rule 15c2-12, provide assurances that issuing states and localities will provide the MSRB with disclosures to assist potential investors in determining the risks and sustainably of the bond issuing entity (General Rules and Regulations, Securities Exchange Act of 1934, 2020; Municipal Securities Rulemaking Board, 2018). The required disclosures are in the form of standardized reporting packages prepared by a state and local government issuer and include information on general financial health, notice of impactful events after issuance of the bond and any other information that can impact the ability to back investors.

Ratings agency disclosure requirements for localities

Ratings agencies are hired by municipalities to rate their debt offerings and assess creditworthiness, a key step in securing bond funding and determining bond interest rate (Banerji & Gillers, 2018). Similar to the federal government oversight agencies, ratings agencies utilize standard economic and financial data to determine credit risk and lending worthiness (Bojinov, 2011). The three main bond rating agencies in the United States are Standard and Poor's Global Ratings, Moody's Investors Service, and Fitch Ratings. Table 2 below is an overview of the bond ratings utilized by the three main ratings agencies and the meaning of each rating category (Waring, 2012):

Table 2- Bond Ratings Types.

	Moody's	S&P	Fitch	Meaning
Investment Grade	Aaa	AAA	AAA	Prime
	Aa1	AA+	AA+	High Grade
	Aa2	AA	AA	
	Aa3	AA-	AA-	
	A1	A+	A+	Upper Medium Grade
	A2	A	A	
	A3	A-	A-	
	Baa1	BBB+	BBB+	Lower Medium Grade
	Baa2	BBB	BBB	
	Baa3	BBB-	BBB-	
Junk	Ba1	BB+	BB+	Non Investment Grade Speculative
	Ba2	BB	BB	
	Ba3	BB-	BB-	
	B1	B+	B+	Highly Speculative
	B2	B	B	
	B3	B-	B-	
	Caa1	CCC+	CCC+	Substantial Risks
	Caa2	CCC	CCC	Extremely Speculative
	Caa3	CCC-	CCC-	In Default w/ Little Prospect for Recovery
	Ca	CC	CC+	
		C	CC	In Default
			CC-	
	D	D	DDD	

Source: Adopted from Warning, 2012.

State and local finance managers understand that the financial reports they generate are key components in assessing institutional credibility by their various constituencies. Audited financial disclosures also provide credit ratings agencies with the data they need to determine a town's risk profile and determine the credit ratings needed to access the credit markets (Benson, Marks, & Raman, 1984; Gioux & Deis, 1993; Baber & Gore, 2007; Johnson, Kioko, & Hildreth, 2012; Nejadmalayeri, Faircloth, Wendel, & Chelikani, 2016). Municipalities that employ GASB compliant financial reporting methodologies and reporting timelines, all things being equal, have lower debt issuances interest rates (Zimmerman, 1977; Callahan & Waymire, 2015; Bloch, 2016; Henke & Maher, 2016).

Factors Impacting Audit Fees

Much has been written on the factors that influence audit fees with research on audit fee determinants focused on the entity's environment, political structure and

attributes of the external audit firm (Cobbin, 2002; Brown & Margavio, 1994; Suryanto, 2014; Gaynor, Kelton, Mercer, & Yohn, 2016; Marques & Pinto, 2018). Literature on audit fee determinants was reviewed and the independent variables most applicable to the Connecticut municipal setting were selected for use in this study. Detail on the literature studied to document audit fee independent variable determinants is contained in Appendix 3.

Impact of municipality environment on audit fees

The size of an entity and the type of entity (private, public, or not-for-profit) have been a keen area of interest for those studying the audit market. The underlying view has been that the larger the entity, the greater the number and complexity of transactions requiring additional audit effort to provide assurance of controls and financial strength (Rubin, 1988; Brown & Margavio, 1994; Hassan & Naser, 2013; Collin, Haraldsson, Tagesson, & Blank, 2017). The amount of municipal debt and economic profile of the citizenry have been found to impact the audit fees, as these factors can impact the audit risk, which in turn increase the time an auditor will spend on the audit (Baber, Brooks, & Ricks, 1987). As towns place greater reliance on external funding in the form of grants and bonds there is an increase demand for specialized audit expertise. The impact of auditor fees when competing in a specialized market has shown mixed results in the literature (Marques & Pinto, 2018; Bae, Choi, & Lee, 2019): some studies have found higher fees due to increased scope and testing, while other research has shown that auditor specialization has a positive impact on perceived quality but not on fees (Lowensohn, Johnson, Elder, & Davies, 2007). One external factor, bond rating, which can be used as a proxy for entity financial reporting quality and financial risks, has been

studied extensively and has shown to impact audit fees with an inverse relationship between bond rating (high to low) and audit fees (lower to higher) (Rubin, 1988; Gioux & Deis, 1993; Sanders, Allen, & Korte, 1995; Hribar, Kravet, & Wilson, 2014; Gaynor, Kelton, Mercer, & Yohn, 2016; Edmonds, Leece, Vermeer, & Vermeer, 2020).

Impact of municipality political structure on audit fees

The political environment and governance structure are areas of research interest in determining the impact of audit fees. The literature has mixed results when studying the political structure and the impact on audit fees (Ward, Elder, & Kattelus, 1994), while others indicating an influence (Baber, Brooks, & Ricks, 1987; Collin, Haraldsson, Tagesson, & Blank, 2017). A study of Missouri towns with populations under 50,000 found audit costs were not lower in towns that had increased agency cost due to the existence of professional city managers, governing boards and other agents of the citizenry (Brown & Margavio, 1994). The role of oversight such as the existence of a finance and/or audit committee has also been an area of academic interest and their impact in improved reporting quality and reducing financial risk has been examined, (Naser, Kandari, Al-Mutairi, & Nuseibeh, 2013; Ellwood & Garcia-Lacalle, 2016; Zhang & Rich, 2016).

Impact of audit firm attributes on audit fees

The profile of an audit firm and its impact on the fees charged is an area of scholarly compliance research. The size of the audit firm (Big 4, regional and local) and operating locality of the firm have been studied as a possible indicator for audit fees (Simunic, 1980; DeFond & Zhang, 2014; Tepalagul & Lin, 2015). The audit firm profile impact on fees as it pertains to municipal work has shown mixed results even when

factors such as transparency surrounding fee negotiations, level of competition and auditor work scope are taken into account (Rubin, 1988; Sanders, Allen, & Korte, 1995; Clatworthy, Mellett, & Peel, 2002; Collin, Haraldsson, Tagesson, & Blank, 2017). The concept of the learning curve has come into play with respect to audit fees, as has the impact of auditor rotation and the impact of time and effort spent on negotiating contracts; both of these items were found to influence audit fees (Baber, Brooks, & Ricks, 1987; Rubin, 1988; Ward, Elder, & Kattelus, 1994; Elder, Lowensohn, & Reck, 2015; Verbruggen, Christiaens, Reheul, & Caneghem, 2015). Studies have shown mixed results on the audit fee impacts associated with the level of auditor specialization in the field being audited and the regulatory nature of the environment being audited (Jensen & Payne, 2005; Collin, Haraldsson, Tagesson, & Blank, 2017; Riccardi, Rama, & Raghunandan, 2018).

Gaps in the Extant Studies

The above literature review shows that past studies have focused on specific influencers of audit fees such as entity size, government type or auditor size (Simunic, 1980; Lowensohn, Johnson, Elder, & Davies, 2007; Elder, Lowensohn, & Reck, 2015; Marques & Pinto, 2018). Limited number of studies have looked at multiple fee determinants, but they have relied on town self-assessments of their audit cost drivers via survey responses (Rubin, 1988; Ward, Elder, & Kattelus, 1994). While all these studies provide useful empirical information, their focus on specific fee drivers can limit the findings scope while reliance on survey responses can lead to potential response bias.

To fill this gap, the current study has developed a database consisting of key financial indicators that impact a town's fiscal health and operational efficiency (Turley,

Robbins, & McNena, 2015). The study contacted each town's financial leader to validate data sources for accuracy and completeness. The study also utilized this contact point to gain insight into each town's audit fees and gather the most recent audit fee data; thus, eliminating reliance on third party sources that have the potential of inadvertently eliminating or adding reported fees that are not considered part of the core audit fee cost structure. As a result, this study is able to identify audit fee drivers based on the first-hand data collected from all Connecticut towns with populations over 10,000 and provides a relative complete picture of municipality audit fees and their contributing factors.

III. THEORETICAL BACKGROUND

Background

One of the theoretical foundations for the study of governance is the Agency theory which is one of the oldest and most popular theories in management (Daily, Dalton, & Rajagopalan, 2003; Wasserman, 2006; Panda & Leepsa, 2017). Agency is a series of interests and intentions of rational actors who intentionally conduct a set of behaviors to achieve goals each deem in their best self-interest. In their influential paper about the theory of the firm, Jensen and Meckling (Jensen & Meckling, 1976) stated that a manager's behavior is based on the structure of the costs and rewards which are usually determined through a contract. A contractual relationship, where the agent agrees to perform a service for the principal and where the principal also delegates authority to the agent, was called an "agency relationship" by the authors. Jensen and Meckling further pointed out that since this relationship permits the agent to act not necessarily in the best interests of the principal, incentives must be developed for the agent to comply with the contract, incurring additional "agency costs" to avoid being impacted by this prospect. Figure 8 figure shows the principal-agent relationship in agency theory (Khan, 2018):

Figure 8- Agency Theory Overview.

Source: Adopted from Ashraf Khan, 2018.

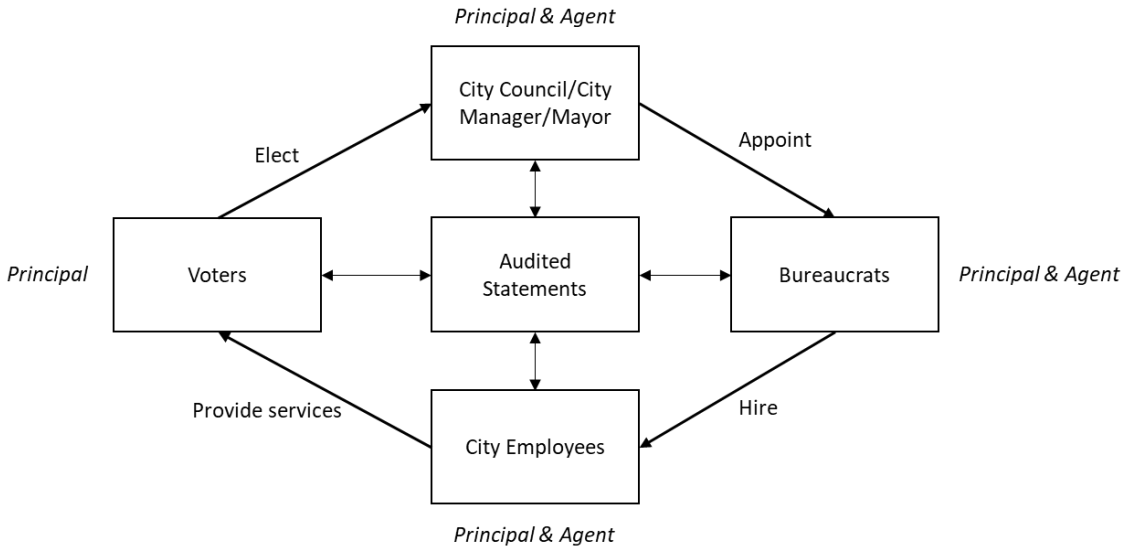
Use in Government Setting

Local governments manage a series of complex agency relationships amongst the grant making authorities, bonding and rating agencies and their local constituents. Complicating the relationship are voter expectations who vote primarily based on how local officials protect their most valuable asset, their home (Edelson, 1976) with a secondary concern of the value of services (schools, roads, libraries, playgrounds, etc.) provided by their town. This voting pattern further complicates the principle-agent relationship because it provides both incentives and disincentives for town leadership to incur bonding costs for new infrastructure, while spending tax dollars on creating and maintaining the required financial reporting infrastructure needed to compete for federal/state grants and bonding issuances that support a livable city.

The principal-agent relationship can be recognized between the taxpayer and their elected officials, between elected officials and the State and local agencies, and between governmental agencies and the entities that they oversee (Gordon & Hamer, 1998; Maggetti & Papadopoulos, 2018). Although a government entity is not motivated by profits it does not mean that the individuals working in these groups (bureaucrats, elected officials, regulators, etc.) are not trying to maximize their own anticipated benefits and as such it "seems reasonable to expect agency conflicts in nonprofit as well as profit organizations" (Gordon & Hamer, 1998). The role of financial statements, based on agency theory, is help reduce agency costs between the principal (the public, elected officials, bureaucrats, etc.) and the agent (elected officials, bureaucrats, etc.) by providing transparent and accessible data on sources and uses of funds. Voters, bureaucrats, elected officials, bonding agencies and grant making entities are all consumers of municipal

financial statements and utilize these statements based on their specific needs and agendas (Giroux, 1989; Bogt, 2004; Frank & Gianakis, 2010; Maher & Sohl, 2013; Hyndman & Lapsley, 2016). The key to the usefulness of these financial statements for the user community is their accuracy, completeness, timeliness, and integrity as reviewed and attested to by certified public accountants. The below model, as seen in Figure 9, outlines the principal – agent relationships active within a typical municipality. The audited financial statements provide each principal with the agent oversight they require.

Figure 9- Agency Theory Withing the Rubric of Municipalities.



Limitations

Problems with agency theory occur when the interests of the principal and agent begin to diverge. This divergence happens when the agent begins to put their interests above those of the principal or when the principal suspects this of happening and the costliness of monitoring the actions of the agent to ensure that they are doing right by the principal. These concerns are at the root of the assumption of self-interest which is the underpinning of the agency model and has been criticized by some as a threat to the external

validity of the theory (Cohen & Holder-Webb, 2006). The critics have stated that the core of the self-interest argument is too narrow a means to explain behavior, and that rationality and self-interest have become too intertwined. Other limitations of agency theory are information asymmetry between the agent and principal and the separation of owner (principal) and management (agent) interests (Vertegen, 2001; Bouckova, 2015). The two main areas that can result in this unevenness are moral hazard, which occurs when the "principal has imperfect information about the agent's actions" (Hölmstrom, 1979), and adverse selection (Akerloff, 1970), which arises when the agent has information that that the principal does not have. The separation of principal-agent, be it physical or emotional distance, can increase the risk that the agent will put their own interests ahead of those of the principal.

Mitigation Aspects

Agency theory recognizes that at their core the principal and agent have divergent and even conflicting goals. To avoid, or mitigate, the prospect of moral hazard or adverse selection controls are utilized: monitoring (Eisenhardt, 1985), bonding (Barney & Hesterly, 2006) and alternate payment schemes such as bonuses, stock sharing, or incentive payments. Monitoring refers to observing the behavior of the agent either in real time or through *post hoc* audits. Bonding refers to punishing, penalizing, or rewarding the agent to behave in a manner beneficial to the principal. Other means of incentive have been seen across private, not-for-profit, and governmental entities and can take the shape and manner that best suites the operating environment. These oversight costs are called "agency costs" and accounting regulations, guidance and reporting have historically played an important part in the contracts that define the agent-principal

relationship (Bricker & Chandar, 1998) as a means to reduce the residual loss (ultimate reduction in the principal's wealth despite the oversight).

IV. RESEARCH MODEL AND HYPOTHESES

Research Model Development

The State of Connecticut requires that municipalities, within six months of the close of the fiscal year, publish a complete set of financial statements presented in conformity with GAAP and that these statements be audited in accordance with Generally Accepted Auditing Standards (GAAS) by a firm of licensed certified public accountants (State of Connecticut, 2020). A CAFR can range from 110 pages to over 250 pages, depending on the size and activity level of the municipality. The primary objective of this research is to determine, within a Connecticut municipality context, what factors influence municipality external compliance costs. For the purposes of this research, compliance costs comprise an independent auditor review of the town financial statements as required by GASB standards.

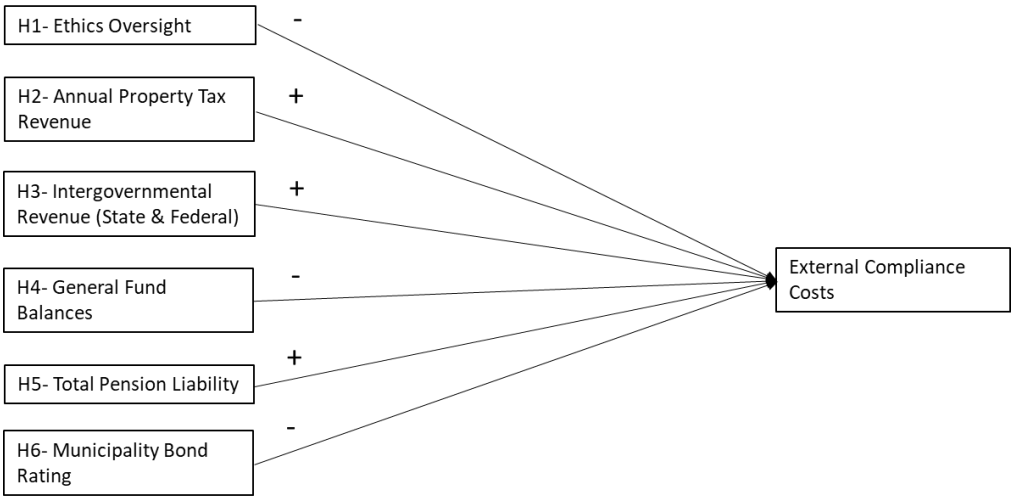
Based on interviews with Connecticut-based municipal finance and reporting subject matter experts (SME), peer reviewed journal articles on audit cost drivers, and publicly available Connecticut financial databases, the independent variables were identified. The results of the literature review are outlined in the "Literature Review" section and in Appendix 3. To ensure that the independent variables identified via the literature review were validated externally and verified independently, subject matter experts were asked to provide their input. FIU IRB approval was gained in advance of contacting the SMEs to ensure compliance with guidelines. The questions posed to the SMEs were culled from the literature review based on topics most referenced and discussed in the literature and based on pilot study pre-planning interviews with select SMEs.

Subject matter experts in the field of municipal financial reporting were identified, contacted to determine their interest in supporting this research, and if interested, interviewed to gain their insights on the key cost drivers (independent variables) that should be considered when building the research model. The SMEs identified for interview were individuals ranging from municipality finance managers, external audit firm partners and managers, city elected officials and rating agency personnel. The interview questions were designed to provide assurance that the research parameters were comprehensive, had expert consensus and were relevant. The subject matter expert list is found in Appendix 4 and the SME responses are presented in Appendix 5. The independent variables identified by the SMEs were then assessed for inclusion into the model based on an assessment of relevance to study goals and data accessibility within the timeframe confines of this dissertation study.

Research Model

Figure 10 below is the research model encompassing the independent variables being studied.

Figure 10- Research Model Hypotheses.



Hypotheses

The below hypotheses build on the American system of fiscal federalism where a city's operation is funded by a myriad of local taxes, a reliance on funding from the state and federal government (so-called intergovernmental revenues) in the form of grants and aid and bonding measures to support infrastructure projects. Using these revenue sources, a city provides public services ranging from educational services to public safety. In addition to daily operational activities, cities allocate funds for their employee retirement plans as mandated by law. Agency theory is used to outline the oversight relationship between the principle (taxpayer) and the agent (city officials and employees) in the monitoring of, and reporting on, the funds used for town operations. The main method of maintaining oversight by the principal to the actions of the agent is the external audit (Caers, et al., 2006; Jegers, 2009).

> H1: The existence of audit and/or finance committees will have a negative (decrease in fees) impact on external compliance cost.

According to the agency theory, an independent board will provide effective oversight of management in support of reducing the principle-agent distance (Zhang & Rich, 2016) as does the quality of the reporting environment in support of pre-audit efficiencies (Brown & Margavio, 1994; Suryanto, 2014; Gaynor, Kelton, Mercer, & Yohn, 2016). The form and structure of a town has also been proven to impact the principal-agency oversight cost structure (Baber, Brooks, & Ricks, 1987; McCabe, Clingermayer, Feiock, & Stream, 2008; Sanders, Allen, & Korte, 1995; Tepalagul & Lin, 2015; Collin, Haraldsson, Tagesson, & Blank, 2017). The many factors impacting the cost of compliance: municipality's size, complexity and structure will have an impact on

the amount of work required by external firms to assess the control environment (Rubin, 1988; Vermeer, Raghunandan, & Forgione, 2009; Naser, Mutairi, & Nuseibeh, 2013; Wahab & Zain, 2013; Collin, Haraldsson, Tagesson, & Blank, 2017). The role of a finance and/or audit committee can help provide another layer of oversight providing assurance of the operations of a town regardless of size, complexity, and structure. The added layer of oversight is expected to provide greater assurance to the external auditor and by extension reduce and/or streamline the audit procedures which in turn should decrease audit time and reduce audit costs.

> H2: The annual tax revenue base has a positive (increase in fees) impact on external compliance costs.

A possible surrogate for the complexity, size and financial health of a city can be seen in its tax collection/tax base. A larger tax base can signal the size of the city and the increase in cash and cash equivalents on hand which in turn can signal the complexity of that city's financial operations (UC San Diego, 2017). Also, a larger tax base can suggest the need for a larger bureaucracy to manage the tax collection and the ensuing tax distribution. Per the agency theory, the auditors are expected to provide assurance that these funds are collected and distributed in a transparent and voter-approved manner. The increase in cash and cash equivalents adds a layer of complexity in an entity and this complexity adds a layer of oversight that by extension increases the audit procedures, which in turn should increase audit time and, by extension increase audit costs.

H3- Intergovernmental revenue amount has a positive (increase in fees) impact on external compliance costs.

The intergovernmental revenue is comprised of state and federal funds collected by a city or town. Before a town can apply for state and federal grant or funding for a selected activity, the municipality must meet certain financial reporting standards designed to allow for an "apples to apples" comparison of towns across a state and across the nation. Establishing the reporting and oversight infrastructure to meet the expectations of State and federal officials adds a layer of complexity to the financial structure of a town, possibly increasing audit oversight time and costs. Per the agency theory, the auditors are expected to provide assurance that these funds are collected and distributed in a transparent and grant-approved manner (UC San Diego, 2017). The increase in cash and cash equivalents along with the grant making entity's distribution requirements adds a layer of complexity in an entity and this complexity adds a layer of oversight that by extension, increases the audit procedures which in turn should increase audit time and increase audit costs.

H4: The general fund balance has a negative (decrease in fees) impact on external compliance costs.

A positive fund balance can be seen as an indicator of the financial health of a city. This hypotheses states that cities that have adequate, if not surplus, operational funds will have the resources to fund systems and staff to support the compliance and transparency needs of auditors. Also, the hypotheses states that cash rich towns are less likely to have the impetus to "cook the books" in order to show a better operational position to voters and other constituents. A healthy financial position is seen as a lesser

risk by auditors, and this decrease in risk environment can impact audit work scoping to include fewer hours than if the environment was deemed high risk (Deloitte, 2009). An audit with fewer budgeted hours testing controls can, in turn, reduce total engagement audit costs.

> H5- Pension and OPEB liability balances have a positive (increase in fees) impact on external compliance costs.

Since the Great Recession of 2008, unfunded liabilities of many public sector retirement systems have surged (Novy-Marx & Rauh, 2011) and as a result have become a key indicator of the municipality's health. This added attention to retirement fund balances has put pressure on external auditors to provide accurate, timely and transparent reporting in their annual attestations. As the pension balances increase so does the attestation work required to provide an accurate assessment of the pension liability risks.

> H6: A higher bond rating has a negative (decrease in fees) impact on external compliance costs.

The assumption is that the rating agencies and bond markets are working efficiently and as such their assessment of the municipality's risk profile is reflected in the bond rating (Edmonds, Leece, Vermeer, & Vermeer, 2020). The bond markets utilize a myriad of factors in developing a city's risk profile and resulting bond rating. The bond rating can be used as a proxy for the economic and financial health of a municipality, a factor that external auditors utilize in designing their audit plan. More complex and detailed on-site audit activities usually impact the cost profile of the audit.

V. METHODOLOGY

Data Collection

The data required for this study currently does not exist in any comprehensive secondary sourced database. To complete the study a database was created via compilation of publicly available state and town sources for the selected independent variables. Where the needed data could not be found via publicly available sources or the data could not be easily identified utilizing these sources, town finance officials were contacted for the missing data or any required clarification of publicly available data. The key data sources relied upon in creating the database were:

- Municipal Fiscal Indicators- Office of Policy and Management
- 2014-2018 American Community Survey- U.S. Census Bureau
- Individual Town Demographic Data- Town Official Web Site
- Individual Town Financial Data-
    - Town Comprehensive Annual Financial Report (CAFR) – Created by each of the 98 towns in the database
    - Office of Policy and Management's Annual Budget Report- Office of Policy and Management
    - State of Connecticut FY 2017, FY 2018, and FY 2019 Estimates of State Formula Aid to Municipalities- Office of Policy and Management
    - Connecticut's Financial Support to Municipalities- Office of Policy and Management
    - Audit Fee Data- Review of each town's budget and follow-up with each town's finance office
    - Independent Variable Selection- Interviews with subject matter experts

Data from the U.S. Census Bureau and the State of Connecticut was used to identify all 169 towns, gather relevant demographic data, and compile relevant financial information required to determine the number of towns to include in the final analysis.

An interview protocol of subject matter experts (SME) was used to collect independent variables potentially linked to the cost of external compliance. The SME list supplements the listing gathered from the literature review, and further strengthens the external validity of the model. The full listing of independent variables collected from the SME interviews and literature reviews was then reduced to create the final variable listing. Utilizing information from each town's CAFR and other publicly available information on Connecticut town finances and governance, an original dataset comprising the selected independent variables was created. The resulting database was analyzed using descriptive statistics, linear regression, and multiple regression.

Population of Interest

The target population comprises Connecticut towns with populations of 10,000 or greater as of 2019. The towns with populations under 10,000 often choose to report their financial status through town budgets prepared by an accounting clerk, supervised by a volunteer finance committee. The cut-off of 10,000 population was selected as most towns below this population threshold did not produce the CAFR or do not possess many of the study independent variables due to their town's financial and/or political profile. Of the 169 towns, boroughs, and cities (168 reporting entities, herein referred to as cities or towns interchangeably) in Connecticut, 96 have populations greater than 10,000 and these towns became the data set for this study. Please refer to Appendix 2 for a listing of Connecticut towns by population.

Operationalization of Constructs

Operationalization of Constructs- Independent Variables

Two methods were employed to select the independent variables and to ensure the external validity of the variable selection:

The first step in ensuring that the study variables can be applied across Connecticut towns in the sample and are also applicable to the larger community of national municipalities, was to conduct a literature review of research on factors impacting external audit costs. The results of the findings are outlined in the "Literature Review" section and in Appendix 3 "Literature Review Summary of Audit Fee Independent Variables". The second step ensuring that the study variables can be applicable across towns was to conduct an interview with Connecticut-based SMEs with authoritative knowledge of municipal finance departments, municipal financial statement design and reporting purpose, state municipal audit requirements and/or State municipal political structures. Detailed overview of the SME interview protocols can be found in the "Research Model Development" section of the dissertation. The subject matter expert list is found in Appendix 4, and the SME responses to the questions pertaining to external compliance cost drivers are shown in Appendix 5. The transcript of the SME interviews was reviewed and validated by each interviewee to ensure accuracy.

Based on an assessment of the SME interviews and literature review, a list of independent variables to consider as a part of the analysis was complied. Table 3 below. provides a summary of sources utilized in the creation of the data constituting each independent variable. It should be noted that all data is based on the uniform fiscal

yearend which for Connecticut municipalities is July 1 to June 30. Unless otherwise stated, the data utilized are for the fiscal year running from July 1, 2017 to June 30, 2018.

Table 3- Summary of Independent Variable Sources.

Independent Variable Name	**Independent Variable Description**
Compliance Oversight	Compiled from annual reports submitted to the Secretary of the State by the municipality and the town CAFR.
Financial Reporting Quality	Compiled from town CAFR Government Finance Officers Association certificate of achievement for excellence in financial reporting.
Annual Revenue	Compiled from annual reports submitted to the Secretary of the State by the municipality and the town CAFR.
Fund Balance	The excess of fund assets and deferred outflow of resources over fund liabilities and deferred inflow of resources.
Municipal Bond Rating	A bond rating is an evaluation by credit-rating agencies of a municipality's credit risk. (December 2019)
Grant Activity/ State and Federal Funding	Compiled from annual reports submitted to the Secretary of the State by the municipality and the town CAFR.
Pension and OPEB Balances	Compiled from annual reports submitted to the Secretary of the State by the municipality and the town CAFR.

Operationalization of Constructs- Dependent Variable

The dependent variable was operationalized by defining it into the measurable factor of audit fees. Audit fees for fiscal year 2019 were collected from municipalities with populations over 10,000 inhabitants. The audit fee data was collected either from town financial disclosures in their annual approved budget or direct contact with town finance staff. If a town refused to provide the requested audit cost data a Freedom of Information Act request was filed to access the required information. The audit fees collected were those pertaining to the work required to provide an attestation on the quality of town financial statements and the underlying fiscal health of the entity. Towns that participated in the manual data collection effort have been promised a copy of this research upon publication.

Validation- Content Analysis Procedures

The SME interview responses pertaining to audit fee determinants were aggregated and compared with the literature review findings and used as the independent variable list. SME input and knowledge gained through the literature review was used to the avoid the design error of an omitted variable, ensuring that all significant variables have been considered when designing the model (Vogt, 2007).

VI. DATA ANALYSIS AND RESULTS

The analysis is divided into three sections and integrated into the final analysis:

1. Descriptives analysis- conducted a statistical analysis on the independent variables of the research model. The findings from analysis were reported.
2. Diagnostic analysis- conducted multiple tests to check whether the data meet the assumptions of the regression analysis for the research model, including multicollinearity, tolerance, variance inflation factor (VIF), and other data problems. The results of the regression assumption tests were reported.
3. Model test- conducted a multivariable regression analysis to test the research model. The results of the regression analysis (R squared, adjusted R squared, the regression coefficients, and statistical significance of the regression coefficients) were presented.

Data for this study was collected utilizing publicly available data from each town's financial statements (CAFR), State of Connecticut Office of Policy and Management's Municipal Fiscal Indicators databases and other supplementary key demographic information found on town web sites. The financial and demographic information required was cleansed for input accuracy and loaded into the database built for the study. This information was accessed when conducting internal validation of the study data and when filling in any data gaps through personal, and documented, outreach with finance staff.

Descriptives

Descriptive statistics surrounding the dependent variable and independent variables employed in this study are showcased in Tables 5-7. Table 4 outlines key descriptive statistics related to the respondent pool. As seen in the descriptive statistics,

97 towns have populations over 10,000 with the majority of towns (80.4%) having populations between 10,000 and 50,000 residents. Most towns surveyed have property tax revenue evenly split between $250 million and $100 million at 23.7%, $100 million - $50 million at 35.1% and below $50 million at 33%. The vast majority of towns (83.5%) receive under $50 million of their revenue from State and federal grants. The general fund balance, due to the size of the towns, is heavily weighted to under $20 million at 69.1% of towns surveyed.

Table 4- Descriptive statistics about the continuous variables employed in the study.

Population ('000)			**Annual Property Tax Revenue ($M)**		
	Number	**Percentage**		**Number**	**Percentage**
100-150	5	5.2%	500	1	1.0%
100-50	14	14.4%	500-250	7	7.2%
50-10	78	80.4%	250-100	23	23.7%
Total	97	100.0%	100-50	34	35.1%
Minimum	10.12		Under 50	32	33.0%
Maximum	146.42		Total	97	100.0%
Mean	33.21		Minimum	20	
			Maximum	516.79	
			Mean	100.17	
Annual Intergovernmental Revenue ($M)			**Total General Fund Balance ($M)**		
	Number	**Percentage**		**Number**	**Percentage**
400-300	1	1.0%	50-100	2	2.1%
300-200	2	2.1%	50-40	2	2.1%
200-100	2	2.1%	40-30	7	7.2%
100-50	11	11.3%	30-20	19	19.6%
Under 50	81	83.5%	Under 20	67	69.1%
Total	97	100.0%	Total	97	100.0%
Minimum	3.94		Minimum	-10.6	
Maximum	360.4		Maximum	61.22	
Mean	38.17		Mean	15.91	
Total Pension Liability ($M)			**Total Municipal Actuarially Determined Contribution-ADEC ($M)**		
	Number	**Percentage**		**Number**	**Percentage**
1000-1500	2	2.1%	50-100	1	1.0%
1000-500	4	4.1%	50-25	1	1.0%
500-250	14	14.4%	25-10	11	11.3%
250-100	20	20.6%	Under 10	84	86.6%
100-50	13	13.4%	Total	97	100.0%
Below 50	44	45.4%	Minimum	0	
Total	97	100.0%	Maximum	56.27	
Minimum	0		Mean	4.94	
Maximum	1455.02				
Mean	157.45				

Table 5 outlines key descriptive statistics related to town operational profile as linked to study variables. 66% of the towns in the study utilize a financial oversight

function while 58.8% are recipients of the State financial reporting excellence certificate. A large percentage of the towns in the study (60.8%) utilize the audit services of a regional accounting firm with only 13.4% of the towns employing a national firm. 69.1% of the towns surveyed maintain a five plus year relationship with their external auditors. The government type (mayoral, town manager, selectman, other) in the towns of the study sample are almost evenly split between mayoral (28.9%), manager (28.9%) and selectman (32%) leadership, with only 10.3% utilizing an "other" type of government. None of the towns in the study have a Moody's bond rating below Baa1 with the majority (62.9%) having an Aa1 rating. 87.6% of the Connecticut towns in the study have five or fewer pension plans which they are responsible for sustaining.

Table 5- Descriptive statistics about the discontinuous variables employed in the study.

Exitance of Ethics Oversight Committee		
	Number	**Percentage**
Yes	64	66.0%
No	33	34.0%
Total	97	100.0%

Exitance of Finance Oversight Committee		
	Number	**Percentage**
Yes	60	61.9%
No	37	38.1%
Total	97	100.0%

Certificate of Achievement for Excellence in Financial Reporting Program (CAFR Program)		
	Number	**Percentage**
Yes	57	58.8%
No	40	41.2%
Total	97	100.0%

Bond Rating		
	Number	**Percentage**
Aaa	15	15.5%
Aa1	61	62.9%
A1	10	10.3%
Baa1	5	5.2%
Below Baa1	0	0.0%
No Rating Used	6	6.2%
Total	97	100.0%

Audit Firm Tenure Over Five Years		
	Number	**Percentage**
Over Five Years	67	69.1%
Under Five Years	30	30.9%
Total	97	100.0%

Audit Firm Type		
	Number	**Percentage**
National	13	13.4%
Regional	59	60.8%
Local	25	25.8%
Total	97	1

Government Type		
	Number	**Percentage**
Mayoral	28	28.9%
Manager	28	28.9%
Selectman	31	32.0%
Other	10	10.3%
Total	97	100.0%

Number of Pension Plans		
	Number	**Percentage**
15-20	1	1.0%
15-10	0	0.0%
10-5	11	11.3%
Under 5	85	87.6%
Total	97	100.0%

Table 6 outlines the 2019 audit costs associated with the 97 towns studied. Based on the study findings the mean audit fees for Connecticut towns with populations over

10,000 stands at approximately $68,000. The majority of Connecticut towns (58.8%) in the study spend between $50,000 and $100,000 annually on audit fees.

Table 6- Descriptive statistics about the 2019 town audit fees in the study.

Audit Costs- 2019 ('000)			
		Number	**Percentage**
300-200		1	1.0%
200-150		3	3.1%
150-100		5	5.2%
100-50		57	58.8%
Under 50		31	32.0%
Total		97	100.0%
Minimum	$25,000		
Maximum	$270,000		
Mean	$67,965		

Diagnostic Statistics

To conduct a linear regression to validate the research model and hypotheses, I first conducted diagnostic tests to check the required key assumptions for such an analysis (Laerd Statistics, 2020; Osborne, 2002). In this study the dependent variable, 2019 audit fees, are continuous as are many of the independent variables. The data is the entire data set for Connecticut, not a sample, and all observations are independent of each other. As seen in Table 7, the data from the continuous variables is skewed and has high kurtosis due to the outliers in the data, which are attributable to the underlying nature of the town profiles. Data that is not normally distributed may or may not be problematic and this "depends on both the purpose of the analysis and the source of the non-normality" (Ronkko & Aguirre-Urreta, 2020). Research has proven that the assumption of normality can sometimes be ignored in a linear regression if other factors such as normality in the residuals and the errors of a linear regression model are distributed

normally (Li, Wong, Lamoureux, & Wong, 2012). In the case of this data set, the non-normality is due to the outliers (Ronkko & Aguirre-Urreta, 2020) with these outlier cities being a key part of the analysis and part of the model assessment. In the case of this study, the outliers fall in the category of "interesting outliers" (Aguinis, Gottfredson, & Joo, 2013) and automatically treating them as harmful should be reconsidered. This recommendation is due to two points: removing outliers can lead to artificial range restrictions (Hawawini, Subramanian, & Verdin, 2002) and simple removal along with the failure to fully assess and understand these outliers "can mean forgoing discovery of valuable, future-oriented knowledge" (Mohrman & III, 2012). This study has kept the "interesting outliers" with further assessment of the impact of these data points on the various independent variables' ability to predict the cost of auditing services. The full list of predictor variables was devised via input from SME interviews and the literature review, the study went on to assess which of the variables have sufficient predictive power to remain in the final model.

Table 7- Descriptive statistics about the 2019 town audit fees in the study.

	Minimum	Maximum	Mean	Statistic	Skewness	Kurtosis
Annual Property Tax Revenue- Govt Funds ($M)	20.00	516.79	100.17	84.09	2.29	6.72
Total Intergovernmental Revenues- State and Federal Sources ($M)	3.94	360.40	38.17	56.09	4.10	18.29
Total General Fund- Balance (Deficit) ($M)	-10.60	61.22	15.91	11.95	1.35	2.89
Total Pension Liability (TPL)- ($M)	0.00	1455.02	157.45	245.45	3.07	11.83

The one-way ANOVA results of the residuals for the continuous independent variables in the model is reported as follows: annual property tax revenue had a significant

impact on 2019 audit fees, F(1, 95) = 127.054, p<.001, total intergovernmental revenue had a significant impact on 2019 audit fees, F(1, 95) = 196.75, p<.001, total general fund balance had a significant impact on 2019 audit fees, F(1, 95) = 4.128, p=.046, total pension liability had a significant impact on 2019 audit fees, F(1, 95) = 138.593, p<.001. The assumption of homoscedasticity and normal distribution of the residuals for the continuous independent variables utilized in the model can be found in Figure 11.

Figure 11- Linearity Tests for Independent Variables.

Figure 11-a: Annual property tax revenue

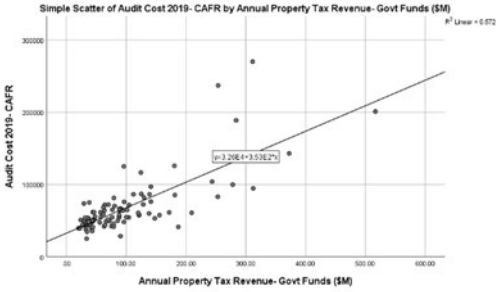


Figure 11-b: Total Intergovernmental Revenue

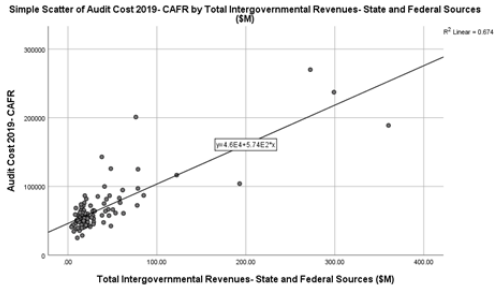


Figure 11-c: Total General Fund Balance

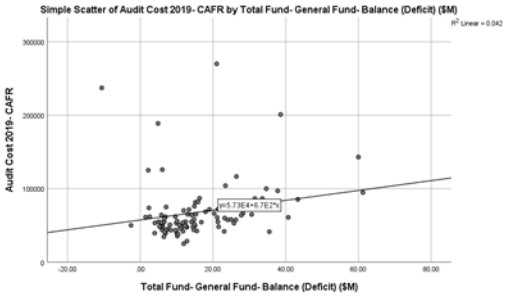
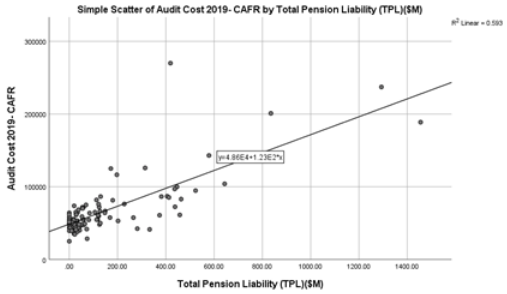


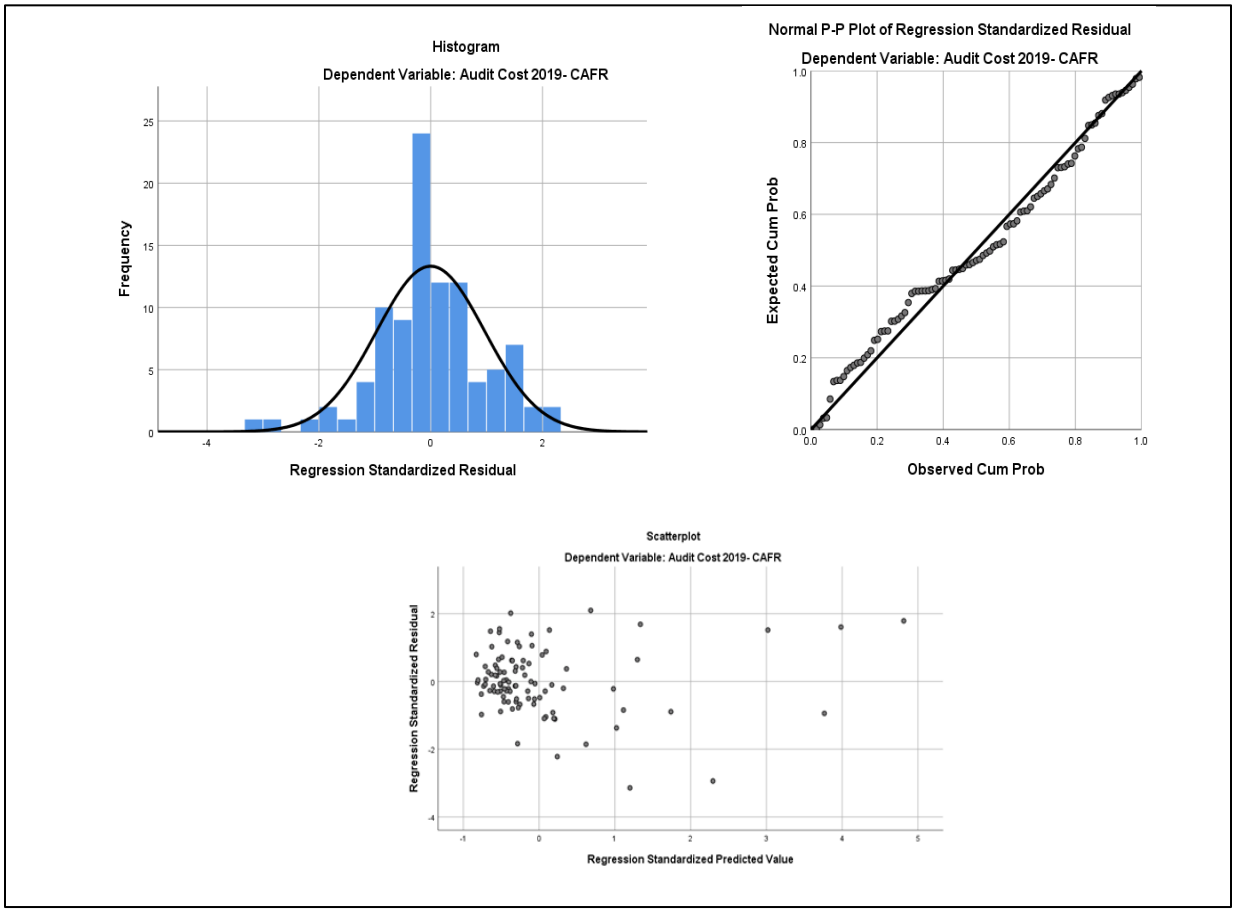
Figure 11-d: Total Pension Liability



The next test is the tests of normality of the residuals, a key assumption of running a linear model. As outlined in the diagnostics section of this paper, the data in this study is not normally distributed due the existence of "interesting outliers" (Aguinis, Gottfredson, & Joo, 2013). This model utilizes linear regression based on research that has proven that

the assumption of normality can sometimes be ignored in a linear regression if other factors such as normality in the residuals and the errors of a linear regression model are distributed normally (Li, Wong, Lamoureux, & Wong, 2012). As seen in Figure 12 the residuals are normal, meaning that the assumption and model inferences are also valid. The histogram of residuals suggests that the residuals are normally distributed, via a bell-shaped curve, with one outlier. The P-P plot has a normal distribution as the points are generally clustered around the horizontal line. The scatter plot is also normally distributed as the imaginary horizontal line between the plots above and below are split nearly evenly.

Figure 12- Linearity Tests for Dependent Variable.



To study multicollinearity two methods were utilized: variance inflation factor (VIF) values and correlation coefficients. Table 8 shows that the model is significant and

the VIF values that fall within a range of low to acceptable correlation among variables (Hair, Anderson, Tatham, & Black, 1995; Schumacker, 2008).

Table 8- Multicollinearity Tests for Model Variables.

	Fit		Collinearity Statistics		
Variable	Significance- P Value	Results	Tolerance	VIF	Results
Existance Ethics of Oversight Committees	0.153	Valid*	0.916	1.092	Low
Annual Property Tax Revenue- ($M)	0.000	Valid	0.186	5.385	Acceptable
Total Intergovernmental Revenues- State and Federal Sources ($M)	0.000	Valid	0.198	5.044	Acceptable
Total Fund- General Fund-Balance (Deficit) ($M)	0.041	Valid	0.430	2.327	Low
Total Pension Liability (TPL)($M)	0.011	Valid	0.135	7.398	Acceptable
Baa1	0.012	Valid	0.608	1.644	Low
Dependent Variable: Audit Cost 2019- CAFR					

To examine the association between various variables utilized in this study, the Pearson correlation coefficient matrix is performed and shown in Table 9 (Schober, Boer, & Schwarte, 2018). The table shows that the correlations between the independent variables in the study, except for total pension liability and intergovernmental revenues at .837, are all below .6 which is the threshold for a moderate relationship. The correlation between total pension liability and intergovernmental revenues is fairly strong but this is to be expected as municipalities with large revenues tend to be the larger cities and these cities will have more staff which will, in turn, lead to a larger pension liability for these employees.

Table 9- Correlations for Model Variables.

		Existance Ethics of Oversight Committees	Annual Property Tax Revenue- ($M)	Total Intergovernmental Revenues- State and Federal Sources ($M)	Total Pension Liability (TPL)($M)	Baa1	Total Fund- General Fund- Balance (Deficit) ($M)
Existance Ethics of Oversight Committees	Pearson Correlation	1.000					
	Sig. (2-tailed)						
Annual Property Tax Revenue- Govt Funds ($M)	Pearson Correlation	.204*	1.000				
	Sig. (2-tailed)	0.045					
Total Intergovernmental Revenues- State and Federal Sources ($M)	Pearson Correlation	0.057	.575**	1.000			
	Sig. (2-tailed)	0.580	0.000				
Total Pension Liability (TPL)($M)	Pearson Correlation	0.122	.799**	.837**	1.000		
	Sig. (2-tailed)	0.235	0.000	0.000			
Baa1	Pearson Correlation	-0.128	.254*	.531**	.334**	1.000	
	Sig. (2-tailed)	0.212	0.012	0.000	0.001		
Total Fund- General Fund- Balance (Deficit) ($M)	Pearson Correlation	.223*	.619**	0.031	.297**	-0.153	1.000
	Sig. (2-tailed)	0.028	0.000	0.762	0.003	0.134	

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Regression Analysis

The regression was utilized to determine the predictive power of the model to assess the linear relationships between the identified independent variables and the dependent variable of 2019 municipal audit costs. The model has significant predictive power, with the R^2 value, representing a model that explains, via the independent variables, 84.6% of the drivers of audit fees, a number that is very large. The adjusted R^2 is equally high at 83.6%. The model is a significant predictor of 2019 municipal audit fees $F(6, 90) = 82.369$, $p<.001$. The impact of each independent variable on the 2019 audit fees, is significant. The regression results can be seen in table 10.

Table 10- Results of Regression Analysis.

Variables	Results
Existance Ethics of Oversight Committees	-5129.79^{ns} (3560.645)
Annual Property Tax Revenue- ($M)	329.522 *** 44.777
Total Intergovernmental Revenues- State and Federal Sources ($M)	415.46 *** 64.975
Total Fund- General Fund- Balance (Deficit) ($M)	-429.339 * 207.157
Total Pension Liability (TPL)($M)	-46.471 * 17.981
Bond Rating- Baa1	24008.695 * 9361.368
R^2	84.6%
R^2 (adj)	83.6%
p value	0.000
F value	82.369

* $p<0.05$, ** $p<0.01$, *** $p<0.001$, ns = not significant

Hypotheses Discussion

The findings show that that the existence of audit committee does not have a significant impact on external compliance cost (β = -5,129.790, p=.153), therefore H1 was not supported. The results only directionally indicate that towns with an audit committee have lower audit fees in the amount of $5,130, with a standard error of $3,561, compared to those towns without such a committee. The insignificant finding is probably due to the lack of consideration of the make-up of the audit committees, the activism of these committees and/or the meeting frequency, which could be factors impacting the results.

The second hypotheses, H2, which states that annual tax revenue base has a positive (increase in fees) impact on external compliance costs, was supported. In the

study each increase of $1milion in the annual property tax base for a town resulted in an increase in the audit fee of $330, with a standard error of $45, indicating that the higher the property tax, the higher the audit fee ($\beta = 329.522$, $p<.001$).

The third hypotheses, H3, which states that intergovernmental revenue has a positive (increase in fees) impact on external compliance costs, was supported. With each $1 million increase in the general fund balance, a town's audit fees increased by $415, showing that the greater the intergovernmental State and federal revenue base, the higher the audit fee ($\beta = 415.460$, $p<.001$).

The fourth hypotheses, H4, which states that the general fund balance has a negative (decrease in fees) impact on external compliance costs, was supported. In the study with each $1 million increase in a town's general fund balance the audit fee decreased by $429, with a standard error of $207. The greater the amount in the general fund balance ($\beta = -429.339$, $p=.041$) the lower the town audit fees.

The fifth hypotheses, H5, which states that pension and OPEB liability balances have a positive (increase in fees) impact on external compliance costs, was not supported. A $1 million increase in town pension liabilities has a negative impact of $46 in audit fees, with a standard error of $18. The increase in total pension liability saw a decrease in audit fees ($\beta = -46.471$, $p=.011$).

The sixth hypotheses, H6, which states that higher bond ratings have a negative (decrease in fees) impact on external compliance costs, was supported. The bond rating, a surrogate for financial well-being, shows municipalities that have the lowest bond rating of all Connecticut towns in the study (baa1) have the highest per capita audit fees. Each unit increase in bonding rating resulted in an increase of $24,000 in audit fees. ($\beta =$

24,008.695, p=.012). The hypotheses hold in that the higher the bond rating the lower the audit fee.

VII. DISCUSSION, LIMITATIONS AND CONCLUSIONS

Discussion and Theoretical Implications

The study attempts to understand the factors that influence municipality external compliance costs within the context of Connecticut municipalities utilizing agency theory. The results show that the existence of an audit committee oversight did not have a significant impact on reducing audit costs. A possible explanation is that external auditors did not feel this function greatly reduces their audit scope planning and ensuing costs. The result contradicts the findings of other studies that suggest additional oversight of the financial functions can lead to an environment where the external auditor receives the tools and assurances needed to conduct an audit in a manner that is less costly (Vermeer, Raghunandan, & Forgione, 2009; Hribar, Kravet, & Wilson, 2014). This might be the reason that those committees only play a superficial role without active involvement of monitoring. The lack of significance also goes against the agency theory that owners (principals) require oversight of the actions of their managers (agents) to ensure maximum efficiency and transparency in operations (Ward, Elder, & Kattelus, 1994; Caers, et al., 2006; Panda & Leepsa, 2017). Again, how those committees operate might be the reason behind the insignificant finding.

The results indicate municipal audit fees increase as the municipality annual tax revenue base and intergovernmental revenues increase, supporting H2 and H3 respectively. Tax revenue base and the amount of State and Federal funding were used as surrogates for entity size and complexity where larger towns received more tax and grant funding to support their daily operational and capital expenditure needs. These findings are in line with previous research on determinants of audit fees which linked auditee asset

structure and complexity factors with audit fees (Rubin, 1988; Baber, Brooks, & Ricks, 1987; Ward, Elder, & Kattelus, 1994; Brown & Margavio, 1994; Lowensohn, Johnson, Elder, & Davies, 2007; Vermeer, Raghunandan, & Forgione, 2009; Collin, Haraldsson, Tagesson, & Blank, 2017). Towns with a higher tax base and larger share of grant revenue had higher audit fees, an observation that is supportive of the concept that added structural complexity requires added time and attention from external auditors to ensure that transactions are conducted in a manner in line with regulatory guidelines. These findings can support a streamlined and transparent process for collecting and reporting revenue as a way to allow for ease of audit, which in turn should translate to reduced audit hours and fees.

The results supported H4 that municipal audit fees decrease as the municipality general fund balance increases. The finding further confirmed the literature findings related to the link between entity financial strength and audit fees (Collin, Haraldsson, Tagesson, & Blank, 2017; Hribar, Kravet, & Wilson, 2014; Clatworthy, Mellett, & Peel, 2002; Rubin, 1988; Baber & Gore, 2007). The general fund is the primary operating fund of a city and accounts for revenues and expenditures necessary to provide governmental services and cover expenses. The stronger the general fund balance, the healthier the town's financial position. Studies that look at the financial strength of an entity have found that the healthier the town, the lower the audit fees (Ward, Elder, & Kattelus, 1994; Brown & Margavio, 1994; Vermeer, Raghunandan, & Forgione, 2009; Collin, Haraldsson, Tagesson, & Blank, 2017). A town can utilize these findings to support the maintenance of a strong general fund balance as a means to reduce audit fees and related assurance expenditures.

The results did not support H5 that the municipality pension and OPEB liability balances positively impact municipal audit fees. The result which show increased pension liability, and the surrounding reporting complexity, having a downward impact on audit cost contradicts studies in the literature suggest that increased financial strain and reporting complexity has resulted in higher audit fees (Brown & Margavio, 1994; Hassan & Naser, 2013; Apadore & Letchumanan, 2016; Ellwood & Garcia-Lacalle, 2016). The outcomes of this study were contradictory to the literature and will require further study to identify potential reasons for this finding.

The results indicate municipal audit fees decrease as the municipality bond ratings increase and are supportive of the sixth hypotheses (H6). The bond rating, a surrogate for financial well-being, shows municipalities that have the lowest bond rating of all Connecticut towns in the study (baa1) have the highest per capita audit fees. The results of this study are in line with other studies that have found positive association between the bond and audit fees (Ward, Elder, & Kattelus, 1994; Sanders, Allen, & Korte, 1995).

Theoretical and Managerial Contributions

Considering the budgetarily constraints faced by most municipalities, town officials must develop cost effective audit strategies when approaching their financial futures. The present study generates findings which will provide inputs to municipal leadership for making policy decisions and devising policy regarding the budgeting and costing of external audit services. The contributions of this work fall into two categories that can be used by municipal leadership- (1) creation of a database and database template for the study of municipality audit fee drivers, and (2) original research in support of factors influencing audit fees.

The development of a database, along with an overview of the methods employed to find and gather the required independent variable information can be used by other researchers when creating databases of their own. The methods employed to study the impact of the independent variables on the dependent variable of audit fee costs can also be replicated in other studies. This study has created a first-ever database of Connecticut municipal audit fees and the cost drivers impacting these fees. Both the format of this database and the predictor variables can be utilized not just in Connecticut, but in other similarly structured states, along with the processes employed for data identification and database creation.

In addition to data collection, integration and creating a database template, the analysis can be used to identify possible opportunities for audit cost reduction that can be of interest to local governments as they assess the impact of recent pressures on their financial stability. The practical contributions of this study are in helping municipalities understand audit fee cost drivers and providing the empirical support to implement operational changes to reduce their audit costs. The findings show that audit fees are higher in towns with higher tax and intergovernmental (grants and aid) revenues. The increased risk associated with increased cash collection does point auditors towards increasing their focus in the departments that handle these receipts. Towns with higher external funds receipts can reduce their audit fees by increasing the transparency surrounding their receivables processes and the allocation of these funds. Also through creating line of sight to all funding sources, tax collections, grants and aid, external auditors can easily study the sources and uses of these funds. Ease of review and

expanded access to receipts data can reduce the time spent testing collections which will in turn reduce audit costs.

This study showed that audits fees are lower in towns with a strong general fund balances, high OPEB and pension liability and strong bond ratings. Towns with strong balance sheets are considered lower risk as auditors view them as well managed and less likely to "cook the books" to hide mismanagement or expose bad news. Towns that have strong financial positions should build on this strength by documenting and promoting the strategic and planning actions that led them to this position of strength. This good "public relations" could further increase the auditor's comfort with the town's management and fiduciary responsibility. The lower audit cost for towns high OPEB and pension liability could be due to the increased oversight from the State or Federal Government who are also partially responsible for these liabilities. In these cases, towns should share the results of the State and Federal oversight with the external auditors, providing additional assurance on the management of these funds.

Limitations, Future Research Suggestions and Conclusion

While the present study adds to the body of knowledge, specifically to a municipal context, it still has limitations. First, the study is limited to the Connecticut governmental context with the nearest similar structure being found in neighboring New England States. Connecticut is divided geographically into eight counties, but these counties, as of October 1960, do not have any associated government structure. Also, unlike most States outside of New England, where cities are under the jurisdiction of a county, the 169 towns of Connecticut are the principal units of local government in the State and have full municipal powers. Considering that this study focuses on the

governmental and operational factors that influence audit fees in Connecticut towns, and that Connecticut has a rather unique operating structure, researchers should take cautions when attempting to replicating this study outside of New England.

Another limitation is that this study is a cross-sectional study based on data from a single year. Specifically, this research examined factors that drive audit fees for one fiscal year and thus the results from this study only identify correlations instead of causation. Future work using panel data could help mitigate this issue. Such a study of audit fees will allow researchers to identify structural changes and governance developments of the targeted towns over a period spanning more than one year adding a perspective that is not provided in a study of a single year. Also, looking at the impact of audit fees over time can help determine if the audit coverage and entity relationships tend to stay constant over time or change in a significant manner and, if yes, what factors contributed to this change. Also, while this study attempts to include many relevant factors driving audit fees, some variables may still be missed. A future study that includes additional missing variables such as audit governance factors could improve the explanatory strength of the model.

This research showed that towns that had an audit committee did not see a decrease in audit fees for towns and that this added layer of oversight was not effective. This points to a future study to determine what is the optimal committee make-up to provide the best standard of oversight as to provide the external auditors with the highest level of assurance. A researcher could consider the make-up, individuals background and expertise, of the audit committee and determine how this make-up impacts their ability to provide meaningful oversight useful to an external auditor. Also, looking into the

frequency, duration and coverage of an audit committee one can determine if those variables have an impact on oversight value. By studying the structure and activity of each committee and comparing it to town audit fees, an optimum audit committee membership composition can be identified.

Lastly, studying the impact of the pension and OPEB liability burden on a municipality's audit scope would be of academic interest. In 2018 State and local governments contributed about six percent of direct general expenditures to employee retirement systems with these contributions still not sufficient to meet the total needs of the future liabilities (Sangha, 2019). As these liabilities increase, and the stresses on the municipalities to meet these shortfalls also increase, it could be interesting study the impact of increased underwriter, state and federal oversight pensions will impact audit fees. Will external auditors rely on these additional state and federal reviews or will the auditors maintain, or expand, their review scope to meet the growth in pension liability balances.

The goal of this study was to further the understanding of factors that influence municipality audit costs through studying the relationship between external audit fees and the selected independent variables of audit committee oversight, external funding sources, general fund balances and total pension liability. The creation of an aggregate database on the needed independent variables allowed for the study of interplay of audit fees with the selected independent variables, provided a lens into factors that impact Connecticut town audits. Future studies can be made by researchers to measure additional factors impacting audit fees or to better understand the variables in this study.

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APPENDICES

Appendix 1. Overview of GASB Authoritative Sources of Guidance for State and Local Governments

GAAP Hierarchy- Statement No. 76 of the Governmental Accounting Standards Board		
Authoritative Category A	Authoritative Category B	Non-authoritative
• GASB Statements • GASB formerly issued interpretations- moved to footnote	• GASB Technical Bulletins • GASB Implementation Guides • AICPA Literature Cleared by the GASB	• GASB Concept Statements • FASB or IASB Pronouncements • International Public Sector Accounting Standards Board • AICPA Literature Not Cleared by the GASB • Industry Practice • Other Regulatory Literature or Textbooks

Appendix 2. Connecticut Town Listing Ranked by Population

Connecticut Cities Ranked by Population											
Rank	City	Population	Rank	City	Population	Rank	City	Population	Rank	City	Population
1	Bridgeport	146,417	51	Bloomfield	20,952	101	Portland	9,362	151	Bozrah	2,567
2	New Haven	130,529	52	Berlin	20,519	102	Putnam	9,360	152	Voluntown	2,559
3	Stamford	129,026	53	New Canaan	20,273	103	Thompson	9,343	153	Lyme	2,469
4	Hartford	123,628	54	Rocky Hill	20,137	104	Redding	9,209	154	Chaplin	2,329
5	Waterbury	108,672	55	Southbury	19,754	105	East Haddam	9,032	155	Morris	2,288
6	Norwalk	88,436	56	Monroe	19,621	106	Woodbridge	8,868	156	Roxbury	2,103
7	Danbury	84,479	57	Bethel	19,551	107	Haddam	8,267	157	Hartland	2,041
8	New Britain	72,839	58	Montville	19,094	108	Brooklyn	8,243	158	Hampton	1,861
9	West Hartford	63,127	59	Waterford	19,052	109	Litchfield	8,198	159	Franklin	1,842
10	Greenwich	62,574	60	Ansonia	18,860	110	Woodstock	7,813	160	Eastford	1,721
11	Fairfield	61,598	61	East Lyme	18,766	111	Middlebury	7,661	161	Bridgewater	1,706
12	Hamden	61,206	62	Wilton	18,542	112	Thomaston	7,623	162	Scotland	1,653
13	Bristol	60,308	63	Stonington	18,436	113	Easton	7,558	163	Colebrook	1,518
14	Meriden	59,864	64	Avon	18,338	114	Old Lyme	7,431	164	Norfolk	1,503
15	Manchester	57,955	65	Madison	18,183	115	Lebanon	7,256	165	Warren	1,432
16	West Haven	54,918	66	Plainville	17,720	116	Durham	7,248	166	Cornwall	1,302
17	Milford city and Milford	54,047	67	Killingly	17,170	117	Westbrook	6,904	167	Canaan	1,196
18	Stratford	52,279	68	Brookfield	17,013	118	New Hartford	6,755	168	Union	873
19	East Hartford	50,453	69	Wolcott	16,652	119	Essex	6,599			
20	Middletown	46,473	70	Seymour	16,522	120	Killingworth	6,414			
21	Wallingford	44,771	71	Ellington	16,041	121	Marlborough	6,394			
22	Enfield	44,455	72	Colchester	15,927	122	Beacon Falls	6,115			
23	Southington	43,763	73	Suffield	15,662	123	Willington	5,912			
24	Shelton	41,155	74	Plainfield	15,114	124	Bethany	5,504			
25	Norwich	39,567	75	Ledyard	14,850	125	Harwinton	5,469			
26	Groton	39,105	76	Tolland	14,766	126	Columbia	5,421			
27	Trumbull	36,174	77	North Branford	14,208	127	East Granby	5,256			
28	Torrington	34,737	78	New Fairfield	13,992	128	North Stonington	5,242			
29	Glastonbury	34,578	79	Cromwell	13,973	129	Canterbury	5,074			
30	Newington	30,323	80	Orange	13,937	130	Bolton	4,928			
31	Cheshire	29,208	81	Oxford	13,022	131	Preston	4,666			
32	Vernon	29,157	82	Clinton	12,976	132	Deep River	4,493			
33	Windsor	28,917	83	East Hampton	12,856	133	Middlefield	4,385			
34	East Haven	28,860	84	Windsor Locks	12,613	134	Lisbon	4,272			
35	Branford	28,094	85	Derby	12,596	135	Chester	4,268			
36	Newtown	27,853	86	Coventry	12,422	136	Ashford	4,234			
37	Westport	27,840	87	Stafford	11,890	137	Pomfret	4,173			
38	New Milford	27,196	88	Plymouth	11,782	138	Salem	4,126			
39	New London	27,032	89	Griswold	11,693	139	Sterling	3,762			
40	Wethersfield	26,267	90	East Windsor	11,379	140	Barkhamsted	3,671			
41	Mansfield	25,977	91	Granby	11,305	141	Sherman	3,641			
42	South Windsor	25,823	92	Somers	11,137	142	Salisbury	3,631			
43	Farmington	25,546	93	Winchester	10,798	143	Washington	3,472			
44	Ridgefield	25,070	94	Canton	10,306	144	Bethlehem	3,452			
45	Windham	24,688	95	Weston	10,288	145	North Canaan	3,302			
46	Simsbury	24,519	96	Old Saybrook	10,118	146	Andover	3,223			
47	North Haven	23,786	97	Prospect	9,736	147	Sprague	2,929			
48	Guilford	22,285	98	Woodbury	9,617	148	Goshen	2,903			
49	Watertown	21,832	99	Burlington	9,607	149	Kent	2,824			
50	Darien	21,759	100	Hebron	9,522	150	Sharon	2,721			

Source- https://www.connecticut-demographics.com/cities_by_population

Appendix 3. Literature Review Summary of Audit Fee Independent Variables

Reference	Title	Variable	Research Focus
- (Baber, Brooks, & Ricks, 1987)	- An Empirical Investigation of the Market for Audit Services in the Public Sector	- Audit firm size - Financial strength of the county - Political factors - Audit firm switches - County population - Audit scope - Debt per capita - Income per capita - Party membership (mixed membership in committees) - County commissioner turnover	Structure of audit fees paid by 100 North Carolina county governments
- (Cobbin, 2002)	- International Dimensions of the Audit Fee Determinants Literature	- Size of auditee - Complexity of the audit - Model risk associated with the audit - Auditor size	Review of literature in the area of audit fee determinants
- (Clatworthy, Mellett, & Peel, 2002)	- The Market for External Audit Services in the Public Sector: An Empirical Analysis of NHS Trusts	- Auditee size - Audit complexity - Audit risk - Entity location - Auditor tenure - Auditor type (size of firm)	Pricing of audit services in the public sector
- (Gaynor, Kelton, Mercer, & Yohn, 2016)	- Understanding the Relation between Financial Reporting Quality and Audit Quality	- Auditor characteristics (turnover, skills set) - Task characteristics (site governance, time spent onsite) - Environmental characteristics (culture, tone at the top, commitment to quality)	Understanding the determinants of audit quality using the person/task/environment framework
- (Collin, Haraldsson, Tagesson, & Blank, 2017)	- Explaining municipal audit costs in Sweden-Reconsidering the political environment, the municipal organisation and the audit market	- Citizen wealth and economic input - Tax rate of the municipality - Political competition of the council - Size of the municipality - Financial strength of the municipality - Debt level of the municipality - Asset structure of the municipality - Selection of audit firm - Sparsely populated municipality	Municipal audit cost drivers

Reference	Title	Variable	Research Focus
- (Vermeer, Raghunandan, & Forgione, 2009)	- Audit Fees at U.S. Non-Profit Organizations	- Resource dependency - Donor contribution levels - Debt levels at auditee - Compliance with Single Audit Act - Auditee complexity - Size of auditee - Asset composition at auditee - Audit committee existence/composition - Existence of internal audit - Auditor characteristics	Explanatory variables surrounding non-profit audit fee determinants
- (Ward, Elder, & Kattelus, 1994)	- Further Evidence on the Determinants of Municipal Audit Fees	- Auditor experience - Number of adjusting entries - Qualified opinions - Agency costs due to monitoring and government form - Political competition/partisanship	Factors that reflect the unique aspects of the municipal auditing environment
- (Suryanto, 2014)	- Determinants of Audit Fee Based on Client Attribute, Auditor Attribute, and Engagement Attribute to Control Risks and Prevent Fraud	- Client attributes: size, complexity, risk, and profitability - Auditor attributes: specialization, time spent at audit, location - Engagement attributes: audit lag after financial close, type of assignment, scope, and amount of work	The effects of client attribute, auditor attribute, and engagement attribute to audit fees and the effect of audits fees to controls risks and fraud prevention
- (Sanders, Allen, & Korte, 1995)	- Municipal Audit Fees: Has Increased Competition Made a Difference?	- Competition - Auditor size - Busy season/timing - Bond rating	Impact of increasingly competitive market on audit fees
- (Rubin, 1988)	- Municipal Audit Fee Determinants	- Auditee size - Loss exposure - Per capita debt - Bond rating - Entity complexity - Report complexity - Auditor selection and retention	Factors that determine audit fees for municipalities
- (Lowensohn, Johnson, Elder, & Davies, 2007)	- Auditor specialization, perceived audit quality, and audit fees in the local government audit market	- Audit size /" brand name" - Specialization of audit firm - Municipality size - Municipality complexity	Effect of auditor specialization on perceived quality and fees within a Florida municipality context
- (Simunic, 1980)	- The Pricing of Audit Services: Theory and Evidence	- Size of auditee - Complexity of the auditee's operations - Audit problems during audit - The industry - Type of auditee company	Testing a hypotheses that audit price competition exits throughout the audit market of publicly traded companies

Reference	Title	Variable	Research Focus
- (Hribar, Kravet, & Wilson, 2014)	- A new measure of accounting quality	- Auditee accounting quality - Auditee Internal controls quality - Size of auditor/size of firm - Audit firm tenure - Total assets, liabilities, and equity - Size of auditee - Number of employees - Sales and profile of the entity sales - Industry profile (business & litigation risks)	Utilizing audit fees as a proxy/alternative measure for auditee accounting quality
- (Jensen & Payne, 2005)	- The Introduction of Price Competition in a Municipal Audit Market	- Town expenditures - Number of funds - Debt (warrants, bonds, et.) - Form of government - Auditor size - Time of audit (busy season?)	Impact of deregulation of audit pricing on the Florida municipal audit fee market and auditor competition
- (Marques & Pinto, 2018)	- Procurement Practices and the Municipality Auditing Market	- Number of grants - Tax collections/amount - Size of municipality - Amount of debt - Audit firm size - Citizen involvement	Through a comprehensive analysis of municipal auditing, explore the auditor selection and procurement process
- (Dey & Lim, 2018)	- Audit fee trends from 2000-2014	- Audit effort, complexity, and risk - Size of auditor/size of firm - Audit firm tenure - Total assets, liabilities, and equity - Size of auditee - Entity profile (mergers, international units, number of segments)	Examination on the determinants of audit fees and audit pricing
- (Ellwood & Garcia-Lacalle, 2016)	- Examining Audit Committees in the Corporate Governance of Public Bodies	- Governance/audit committees - Expertise of compliance oversight - Entity size - Entity complexity - Audit firm size - Audit risk and complexity	The role of governance mechanisms and their influence on the entity
- (Apadore & Letchumanan, 2016)	- Determinants of Audit Fees among Public Listed Companies in Malaysia. A Theoretical Model	- Entity profitability - Entity size - Entity complexity - Audit risk - Type/status of the audit firm	Examination of the determinants of audit fees among listed companies
- (Naser, Kandari, Al-Mutairi, & Nuseibeh, 2013)	- Can Substitution and Signaling Theories Explain the Relationship between External Audit Fees and the Effectiveness of Internal Corporate Governance?	- Effective internal corporate governance	Does audit fee discounting impair auditor independence

Reference	Title	Variable	Research Focus
- (Brown & Margavio, 1994)	- Audit Costs of Small Cities in an Unregulated Audit Market Environment	- Single Audit Act - Auditee quality - Entity complexity - Report complexity - Auditor quality	View of small-city auditing practices and cost determinants and the import of the Single Audit Act in audit-fee determination
- (Zhang & Rich, 2016)	- Municipal Audit Committees and Fiscal Policies	- Audit committee presence and oversight	Impact of municipal audit committees on monitoring, advising and fiscal oversight
- (Wahab & Zain, 2013)	- Audit fees during initial engagement in Malaysia	- Auditor rotation - Auditor bidding to increase price competition	Does price cutting occur on initial audit engagements even when audit fees are publicly disclosed
- (Edmonds, Leece, Vermeer, & Vermeer, 2020)	- The Information Value of Qualified and Adverse Audit Reports: Evidence from the Municipal Sector	- Bond rating	Impact and value of an independent audit report on municipal investors
- (Tepalagul & Lin, 2015)	- Auditor Independence and Audit Quality: A Literature Review	- Auditor tenure - Auditor rotation	Literature review around four main threats to auditor independence: client importance, non-audit services, auditor tenure, and client affiliation with audit firms
- (Gioux & Deis, 1993)	- Investor Interest and Government Accounting Disclosure	- Bond market/ratings	Impact of state and municipal financial disclosure on the bond markets
- (DeFond & Zhang, 2014)	- A Review of Archival Auditing Research	- Audit firm size	Factors impacting audit quality
- (Verbruggen, Christiaens, Reheul, & Caneghem, 2015)	- Analysis of Audit Fees for Nonprofits: Resource Dependence and Agency Theory Approaches	- Audit firm size/reputation - Audit firm expertise in the field of audit when measured at audit partner level (as opposed to audit firm level).	Audit fee determinants in a sample of Belgian nonprofits

Reference	Title	Variable	Research Focus
- (Hassan & Naser, 2013	- Determinants of Audit Fees: Evidence from an Emerging Economy	- Entity size - Entity profitability - Entity risk profile - Entity operational complexity - Entity industry profile - Audit firm status (local, regional, national) - Audit report issuance lag - Audit committee make-up	Audit factors influencing audit fees paid by non-financial companies listed on the Abu Dhabi Stock Exchange (ADX)
- (Bae, Choi & Lee, 2019)	- Auditor Industry Specialization and Audit Pricing and Effort	- Audit firm profile - Audit partner expertise profile - Entity operational profile - Entity profitably profile - Audit firm tenure - Audit firm partner tenure	Effect of auditor specialization and industry profile on audit fees
- (Riccardi, Rama, & Raghunandan, 2018	- Regulatory Quality and Global Specialist Auditor Fee Premiums	- Audit firm profile - Audit fees charged - Entity operational profile - Entity profitably profile - Entity listing profile - Nation Gross Domestic Product - Nation Foreign Direct Investment	Determinants of fee premiums for global specialist auditors and regulatory environment

Appendix 4. Subject Matter Expert List

Name	Company	Title	Business	Phone Number	email Address
Vanessa E. Rossitto	blumshapiro	Partner	Accounting and Audit Firm	860-561-6824	vrossitto@blumshapiro.com
Dean Michael Mead	Governmental Accounting Standards Board (GASB)	Senior Research Manager, Coordinator, Governmental Accounting Standards	Standard Setting Entity	914-497-3293	DMMEAD@gasb.org
Michael J. VanDeventer	MahoneySabol	Partner	Accounting and Audit Firm	860.541.2000, ext. 7924	mvandeventer@mahoneysabol.com
Water Felgate	State of Connecticut	Principal Auditor	State of Connecticut Auditors of Public Accounts	860-486-6869	Walter.Felgate@cga.ct.gov
Vincent Filippa	State of Connecticut	Administrative Auditor	State of Connecticut Auditors of Public Accounts	959-710-5604	vincent.filippa@cga.ct.gov
Janet Murphy	Town of Newington	Finance Director	Finance Head	860-665-8520	jmurphy@newingtonct.gov
Kimberly A. Lord	Town of Manchester	Finance Director	Finance Head	860-647-3031	klord@manchesterct.gov
Rob Buden	Town of Plainville	Finance Director	Finance Head	860- 793-0221 X233	rbuden@plainville-ct.gov

Appendix 5. List questions and SME responses

1. **For this study, how do you recommend the municipalities be broken down/categorized for assessment and analysis of cost of compliance? For example, by size, governing structure, etc.?**

Vanessa E. Rossitto- Town population, budget, liabilities (pension, OPEB), bond/rating agency ratings, complexity in structure

Michael J. VanDeventer- Town budget, town liabilities, bond rating, government structure and complexity, population

Walter J. Felgate- There are many ways to look at towns, the first categories that come to mind are- population, the system of government, how large their overall structure is, how many departments, services and funds are in place. For example, in Hartford there is the Hartford Parking Authority and they have activities and budgets that are audited as a part of the City of Hartford audit. The specialized activities that a city engages in also can add to the cost of an audit as the audit firm will have bring in the added expense of a specialist to conduct the audit.

Vincent Filippa- The categories that come to mind are the town population, how the town is governed and possibility the complexity of the town structure

Robert Buden- It is hard to compare towns and cities as they have different population profiles and supporting spend profiles. One component that might make it easier in the comparisons are: population, total budget, demographics (age, income). One great source of information for town data is from the State of Connecticut's Office of Management and Budget. This group compiles information on cities. Some examples of the information that can be found on this site are: residential data, bond ratings, tax collections, etc.

2. **What do you consider are the key factors in determining cost of compliance? For example, municipality size and complexity, auditor turnover, finance staff expertise, number of town committees, number of town committees with finance/audit oversight responsibility, extent of grant and borrowing activity, etc.?**

Vanessa E. Rossitto- Size/population of the town, complexity of reporting structure, size of budget, auditor tenure/have we had a long-standing relationship with the city, and do we have familiarity with their structures

Michael J. VanDeventer - Town committees and any committees with financial and compliance oversight responsibility, town population, bond ranting, tax revenue, auditor turnover

Walter J. Felgate- The size of the budget, number of funds, how the city government is organized, the infrastructure size and level of activity in this area, the audit firm turnover, the number of GASB pronouncement that have to adhere to, number of component units, specialized activities they are engaged in are things that I would consideration.

Vincent Filippa- Audit firm tenure, the size and population of the town, the number of grants or other external funds they rely on other than their tax revenue base, how complex and complicated their town structure and town departments are…these are some of the items that come to mind. I also suggest looking at the Single Audit compliance requirements to see what each town has to comply with if they are utilizing state funds. This might add to compliance and audit costs.

Robert Buden- Town population, level of services, size of town budget as the items that are included in a budget are representational of the level of preparation and on-site work by the audit team (salaries being indicative of number of staff, debt, capital projects, etc.), pension liability. Sometimes the audit fee is determined by what the town is willing to pay. Has the audit firm done work with the town before. Is the town a repeat customer. Town finance staff and compliance oversight.

3. **What areas within the financial reporting package (CFARs) do you recommend the most attention be paid when analyzing key cost of compliance drivers?**

Vanessa E. Rossitto- Liabilities, budget, complexity determinants, do they follow best practices, and have they been recognized for this

Michael J. VanDeventer - Key funds and fund categories, bond ratings, any best practices commendations or awards for their financial reporting and internal controls, do they have a finance manager and finance team, town structure. Also go beyond the CFAR and look at the town budget as this can be a good proxy for the size and complexity of the entity

Walter J. Felgate- Tax revenue, pension activity and liability, bond rating

Vincent Filippa- Loan activity and requirements, total budget and fund activity, number of town departments/services

Robert Buden- Town organization chart, liabilities/pensions, bond ratings, town size, number of FTEs/full time funded staff. Look to see if the town CFAR and Budget are GFOA certified. Also look at the town budget to get the total amount of revenue and expenses.

VITA

JACQUELINE T. JAMSHEED

1. EDUCATION AND CERTIFICATIONS

Expected 2021	Doctoral in Business Administration, ABD Status, Florida International University
2000	Master of Science in Accounting, University of Connecticut
1995	Master's in Business Administration, Darden Graduate School of Business, University of Virginia
1988	Bachelor of Science, Journalism/Public Relations, S.I. Newhouse School of Public Communications, Syracuse University
1988	Bachelor of Arts, Public Policy, Maxwell School of Citizenship, Syracuse University
2002	Certified Public Accountant, State of Virginia Six Sigma Green Belt Shingijutsu Lean Manufacturing Trained Expert, Shingijutsu was started in 1987 by the pioneers of the Toyota Production system
2018 - Present	Associate Professor, Central Connecticut State University
2014 – Present	Adjunct Instructor, University of Connecticut
2015 – 2018	Adjunct Instructor, University of Saint Joseph
2014 – 2016	Adjunct Instructor, Goodwin College
2017 - 2018	MASSMUTUAL, Springfield, MA *Innovation and Analytics Lead Financial Planning & Analysis*
2015 – 2017	RGP & Independent Consultant, Hartford, CT *Project Management Consultant*
2014 –2015	BRIDGEWATER ASSOCIATES, WESTPORT, CONNECTICUT *Director, Financial Accounting & Reporting, Executive Offices*
2012 - 2014	WEBSTER BANK, CONNECTICUT *Senior Vice President, Enterprise/Operational Risk Management (ERM/ORM) & Continuous Improvement (CI)*
2010 - 2012	CIGNA, BLOOMFIELD, CONNECTICUT *Director, Internal Audit* Directed audit activities for International, Health Care, Cigna Investment Management, Reinsurance, Finance/Accounting and Supplier Portfolios
2009 - 2010	AETNA, HARTFORD, CONNECTICUT *Senior Finance Business Unit Director, Aetna Global Benefits*
1995 - 2009	UNITED TECHNOLOGIES CORPORATION, CONNECTICUT Controller UTC Power Corporation (2007 – 2009) Carrier Corporation, Farmington, Connecticut (2002 – 2007) • *Assistant Controller, Global Internal Controls (2005 2007)* • *Assistant Controller, Global Financial Reporting (2002 – 2005)* UTC Internal Audit, London, United Kingdom (2000 – 2002)

Pratt and Whitney, East Hartford, Connecticut (1995 – 2000)

• *Manager, Cost Management Group, Finance (1998 – 2000)*

• *Materials Manager, Final Assembly Plant, Operations (1997 – 1998)*

• *Manufacturing Cell Leader, Jet Engine Final Assembly Plant, Operations (1997)*

• *Manager, Technology Management Group, Advanced Programs, Engineering Finance (1996 – 1997)*

• UTC Leadership Associates Program (1995 – 1996)

1993 - 1995 THE WORLD BANK, ENERGY INFRASTRUCTURE DIVISION

United States, Russia and Central Asia Sector

1988 - 1992 UNITED STATES OLYMPIC COMMITTEE/UNITED STATES SHOOTING TEAM

Assistant Editor, Shooting Sports USA (publication of the US Shooting Team)

INTELLECTUAL CONTRIBUTIONS

• Delaney, A., De Leon, J., Jamsheed, J., Stewart, S., "A Look how the Latin American Generic Pharmaceutical Laboratories Internationalize In Their Home Continent", *Academy of International Business- Latin American and The Caribbean Chapter Conference, 2020.*

• Jamsheed, J., Marchetti, A., "International Small Business Fraud: Risk Mitigation Strategies", *The Latin American Council of Management Schools – CLADEAVirtual Conference, 2020.*

• Jamsheed, J., "What Factors Influence Municipality External Compliance Costs? A Focus on Connecticut Municipalities", *Engaged Management Scholarship (EMS) Conference- Research That Matters In An Age of Disruption, 2020*. Paper.

• Jamsheed, J., "What Factors Influence Municipality External Compliance Costs? A Focus on Connecticut Municipalities", Engaged Management Scholarship (EMS) Conference- Research That Matters In An Age of Disruption, 2020. Poster.

• Jamsheed J., Lewis M., "Accounting Student Preferences: Digital vs. Paper Learning Tools", *International Journal of Information and Communication Technology Education.*

• Jamsheed J., Lewis M., "The Factors That Influence Intention to Adopt Cloud Computing Technology by Decision Makers in Small and Mid-Sized Firms", *Global Journal of Accounting and Finance*.

• Jamsheed J., Lewis M., "Understanding the Differences in Financial Behavior between Business Owners and Wage Workers"

• Jamsheed J., Lewis M., "Exploring the Awareness of the Certified Management Accountant Certification", *Under Revision*

• Jamsheed J., Lewis M. Shahid, N., "The Evolution of IT Auditing and Internal Control Standards in Financial Statements- An Update"

• AIB 2021 Online Conference, Selected Peer Reviewer