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**Audit Report Timeliness in Local Governments: An Observation of North Carolina
Governmental Units' Response to State-Imposed Deadlines and Consequences**

By

Amber Nicole Daniels

Doctoral dissertation

Submitted to the graduate faculty of
Gardner-Webb University in partial fulfillment
of the requirements for the degree of
Doctor of Business Administration

July 2023

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Dissertation Committee Approval:

Dr. Earl Godfrey, Chair

Date

Dr. Christine Sutton, Committee Member

Dr. Sandra van der Poel, Committee Member

Dr. Christine Sutton, Associate Dean/DBA Director

Dedication

This dissertation is dedicated to my parents. To my father, Joseph David Jr. “Joe Joe”, thank you for always telling me that the purpose of going to school was for an education and not a beauty contest. The song goes, “I’ll fly away in the morning,” so I guess, “Finally you can rest in peace.” You are the greatest, and I will never put anybody above you; I wish I could call you right now and tell you I love you; I guess it was your time, but why did COVID have to choose you? I’d knock heaven's gates down to hug you. To my mother, Audrey Bryant, thank you for all you did and all you said; you did your best to raise us both. I will always love you because you are my mom.

Jessie James Daniels, my husband, who made this journey possible. This dissertation is dedicated to you for the endless number of movies I pretended to watch with you while I conducted this research and for the endless love and compassion you have cast over me during this process. When I think of you, I don’t feel so alone. I love you always and forever and forever after that.

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Finally, to my younger self. I know you are tired of looking around rooms wondering what you need to do or who you are supposed to be; I know you do not want to be anyone but yourself, but you were put here to lead the lost souls. Your purpose is out there; go find it!

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here! I could not end my acknowledgments without thanking everyone who told me my life was over when I became pregnant at 18 years old, I am just getting started.

Abstract

Audit Report Timeliness in Local Governments: An Observation of North Carolina Governmental Units' Response to State-Imposed Deadlines and Consequences

By:

Amber Nicole Daniels

To provide citizens with transparent financial information regarding the health of their respective districts, local government unit leaders must furnish governmental audit reports in a timely manner. Further, for management to effectively implement auditor suggestions for improvements, leaders must have accessibility to timely audited information. Many governmental units in the state of North Carolina have demonstrated significant lags in reporting timeliness and often miss state-mandated deadlines. Therefore, this research utilized ordinary least-squares regression to estimate the effects the variables representing report message and managerial competency, accountability, and audit environment groups had on the time required for each unit to file its annual audit report with the North Carolina Department of State Treasurer. Logistic regression was also used to estimate the effects these groups of variables had on units that filed audit reports after the North Carolina state-mandated submission deadline compared to those that filed on-time. Data was collected from audited financial statements, auditor reports, and financial information reports for units throughout N.C. for the fiscal year 2021. Two variables, *findings and single audit*, were found to have significant influence on units failing to meet state-mandated deadlines. The variable *findings* was also found to have statistical influence on audit report submission delays by local government units.

Keywords: *local government, audit report, financial statements, audit delay*

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Chapter 1: Introduction

Local Government and Audit Report Background

Local government units (LGUs) have the authority to provide services and execute governance over designated districts formally known as counties and municipalities. For clarity, cities, special districts, and towns compose municipalities. The citizens residing in their respective districts vote for commissioners serving on a county or municipality board. These voted-in board members must appoint a manager for the county or municipality with the responsibility of overseeing the operations of their governmental unit (Millonzi, 2018). The manager's role is to prepare and adopt a budget that the LGU will abide by to provide services to its citizens. Within the budget, management levies property tax in accordance with approved rates from the board of commissioners (BOC). For LGUs, property taxes are the greatest form of revenue since they are not-for-profit entities and are not allowed to budget for excess revenue. Therefore, citizens are responsible for paying property taxes to their respective districts. Since taxpayers provide significant funding to LGUs, each LGU is responsible for informing taxpayers that their contributions have been expended on allowable programs and services while complying with specific rules and regulations. Considering the principal-agent relationships modeled in the local government environment, the BOC has a need to receive audited financial statements as assurance that the appointed manager executed upon appointed duties.

The Governmental Accounting Standards Board (GASB) provides oversight to all governmental units within the United States. To facilitate the achievement of

transparency and information sharing with citizens, the GASB requires that all units furnish annual audited financial statements and an auditor's report in a timely manner (GASB, 1987). This requirement is essential. Research has demonstrated that auditing financial statements by independent auditors assures the credibility of accounting information (DeFond & Zhang, 2014). The audited financial statements offer citizens, taxpayers, and other applicable users, such as state granting agencies, investment groups, debt lenders, and stakeholders, an in-depth review of the financial health of the respectable governmental unit. Included with the financial statements is the presentation of the auditor's report. The auditor's report includes the auditor's opinion and a detailed review of the internal controls and compliance measures that each unit has operated during the fiscal year. Within these audit reports, users of the unit's financial information that have provided financing or investment services can gain confidence that their invested funds have been expended in compliance with accounting regulations while also controlled effectively. Likewise, citizens and taxpayers gain confidence through audited financial statements that their tax payments throughout the fiscal year were expended in compliance with accounting regulations and controlled effectively.

To ensure LGUs in North Carolina (N.C.) have complied with their assigned duties and responsibilities, the Local Government Commission (LGC) oversees the operations of all LGUs related to financial reporting, annual budgets, internal controls, debt management, and pension reporting. The General Assembly established the LGC in 1931 due to LGUs losing invested funds during the stock market crash of 1929 (Stick, 2022). In addition to losing invested funds, 62 counties, 152 cities and towns, and over 200 special districts defaulted on outstanding debt obligations (NC State Treasurer,

2022). Updated controls implemented by the LGC are credited for the Triple “A” (AAA) national bond rating that North Carolina currently possesses. The responsibilities listed of the LGC are the obligation of the Commission found in Charter 159 of the North Carolina General Statutes (NC GS 159). NC GS 159, cited as “The Local Government Finance Act,” provides a detailed statute of the roles and responsibilities of LGUs, regulations, and laws by which leaders must abide.

Figure 1 visualizes key dates for LGU leaders in N.C. In accordance with the annual audited financial statements and auditor’s report timeliness requirement of the GASB, the LGC establishes an initial due date of October 31 for all North Carolina LGUs to submit their audited reports. For the years in which the 31st resides on a Saturday or Sunday, the reports are extended until the following Monday. However, unlike most LGUs studied in the past that allow local governments a year to furnish audited financial reports, N.C. has a shorter deadline as it requires financial statements to be audited within four months of the June 30 fiscal year-end (Cagle, 2012; Rubin, 1992). Audited financial statements are not considered late in N.C. until after December 1, as legislation allows for a one-month grace period from the initial due date of October 31.

Figure 1:*Dependent Variables & Significant Dates Explanation*

Dependent Variables:

DELAY	Measured as the number of days between the fiscal year-end, June 30, 2021, and the date the Local Government Commission stamped the audit report as reviewed.
LATE	Measured as local government units that submitted and had their audited financial statements stamped as reviewed by the LGC after the December 1 grace period.

Significant Dates:

FISCAL YEAR-END	6/30/2021; Date reflects the last day of the LGU's operating year, accounting books are closed.
DUE DATE	10/31/2021; Date reflects the initial due date of LGU's annual audited financial statements.
GRACE PERIOD	12/1/2021; Date reflects the extension of time to submit the annual audited financial statements, before considered late.
SLGFD STAMP DATE	The date stamped on the first page of the LGU's submitted audited financial statements, indicating review and approval by the LGC

Problems with Timeliness of Governmental Financial Reporting

As previously mentioned, the primary purpose of the annual audit report is to provide transparency and information assurance to end users (i.e., taxpayers, grant issuing agencies, lenders) that management has been held accountable, while providing critical knowledge concerning the financial health and performance of their applicable governmental unit. From an internal perspective, audited reports annually provide a

roadmap for future changes or improvements. Effectively communicating with external users and having the capability to implement internal strategies require that audited reports be furnished with timeliness. In fact, the GASB (1987) issued *GASB Concepts Statement No. 1: Objective of Financial Reporting*, with timeliness as one of the key characteristics of financial reports. There have been several debates in previous literature over the timeframe for information to be considered “timely.” In a recent survey by Yusuf & Jordan (2017), end users perceived timely financial reports as reports they could access within two to four months after year-end. These expectations have been honored in North Carolina’s local government agencies, as the LGC requires audited reports to be submitted four months after year-end.

According to Berman (2011), in a research study conducted by the GASB on the timeliness of governments releasing financial reports compared to the expectation of users found only five of 1,367 audited financial reports were considered “timely.” The GASB research study found that users of governmental financial reporting perceived the information contained within those reports as useful if received within 45 days (88%), 3 months (43%), and 6 months (9%), of year-end. Their study suggested that those LGUs that did not have standard deadlines for submitting audit reports or consequences for submitting late reports contributed to the lack of initiative by leaders to submit timely financial statements. In addition, Berman (2011) found that outstanding debt contributed to late audit reports. In fact, it has been argued in prior studies that LGUs have no sense of urgency to submit financial statements in a timely manner due to no overarching power structure to dictate a standard due date across all states. The GASB sets accounting guidelines, but has no authority to set deadlines and consequences at a state level for late

audit reports (Henke & Maher, 2016). Unlike public traded entities reporting, which must be submitted 30-60 days after year-end, LGUs only have a deadline to file their audit reports if their state imposes one directly (Henke & Maher, 2016).

Problems with Timeliness of North Carolina Local Government Audits

GASB has no control to impose a nationwide deadline for submitting audit reports, as states have the authority to set such requirements for the local governments operating within their jurisdiction. Therefore, the North Carolina Department of State Treasurer LGC division has established October 31 as the due date for all local government audit reports to be submitted to the LGC division. However, units not submitting their report by the 31st are not considered late until after the 30-day grace period, on December 1. While not all states impose consequences for late audits, North Carolina has imposed strict consequences on those LGUs that have repeatedly submitted late audit reports. These consequences not only influence the unit's leadership performance capability but also have negative consequences for taxpayers. The restrictive nature of an LGU on the Unit Assistance List (UAL) clearly dictates how the unit is allowed to function financially. Considering taxpayer earnings heavily fund LGUs, the impact is felt far beyond the doors of the unit's office locations.

For starters, once a LGU has been late on their audit numerous times, the LGC will issue a unit letter to the organization advising them to develop a plan to prevent future late audits from the same behavior. These units will then be placed on the UAL, which is heavily monitored and controlled by the LGC. The UAL contains a database of all government units that need closer monitoring by the LGC and must operate under the restrictions imposed due to the consequences of submitting late audit reports (NC State

Treasurer, 2022). Most importantly, if an LGU has an outstanding audit when they seek debt approval from the LGC, they will be denied, regardless of whether they are currently on the UAL. When LGUs pursue projects such as water infrastructure, building renovations, and other applicable construction needs, the organization seeks debt assistance from banks that can provide bonds and covenants. By stretching the project's cost through loan payments, the LGU is afforded financial leverage in its current fiscal year operating budget. When an LGU is placed on the UAL, its borrowing capabilities are restricted. Such restrictions force the unit to either postpone the project to a later period when they can gain approval to borrow the needed debt or shift the financial burden to taxpayers in the form of increased tax rates. These rates apply directly to the amount of property tax the individual is required to pay annually to the LGU.

Additionally, units may strategically decide to limit or cut services and programs to offset the cost of debt needed in other areas of the organization. As it currently stands under NC General Statute 159-148, all units of local government must seek LGC approval of debt issuance, regardless of whether they are on the UAL, for the following acquisitions or construction of capital assets:

1. Extends for five or more years from the date of the contract, including periods that may be added to the original term through the exercise of options to renew or extend.
2. Obligates the unit to pay sums of money to another, without regard to whether the payee is a party to the contract.

3. Obligates the unit over the full term of the contract, including periods that may be added to the original term through the exercise of options to renew or extend.
4. Obligates the unit, expressly or by implication, to exercise its power to levy taxes to make payments falling due under the contract, or to pay any judgment entered against the unit because of the unit's breach of the contract.
5. Contracts that obligate the unit to at least \$500,000.

Over the last five years, North Carolina faced several challenges in submitting audit reports on time. In September and October of 2018, North Carolina was plagued by two hurricanes: Florence and Michael. These storms caused extremely severe damage throughout the state leaving many businesses without power for extended periods, individuals without safe means of transportation to work, and audit firm offices closed. Consequently, the resources needed to complete duties related to filing a timely audit report were unavailable (Cardwell & Konrad II, 2022; Jiang et al., 2022). Considering the disasters associated with the hurricanes, the North Carolina Department of State Treasurer established the grace period of December 1 for LGUs. However, Edmundson & McCullen (2019) shared at the Summer 2019 LGC conference that 57 municipalities and nine counties had yet to submit a Fiscal Year Ending (FYE) 2018 audit report. These findings resulted in legislation calling on auditors to produce findings in those reports, which would state the reasoning for the late audit report, with hopes of drawing management's attention to correct the issue from recurring in future audits.

During FYE 2020, the United States was impacted by the COVID-19 Pandemic. In response to the pandemic, most organizations were forced to close their doors to the public or resume operations in a new digitalized work-from-home environment (Alfonso, 2021; Jacks, 2021). To recognize the extreme adjustments that local governments were adapting to, the North Carolina Department of State Treasurer provided a temporarily extended deadline of January 31, 2021, to submit each unit's annual audited report. However, for the 2020 fiscal year reports, no grace periods were instituted due to the temporary extension.

Despite prior economic challenges directly experienced by North Carolina LGUs, 2021 was arguably a year with no new societal interruptions. However, North Carolina continued to experience an ongoing problem with delayed audit reports, according to Edmunds (2022). In fact, the presentation from the LGC in 2022 provided the information that almost two years after FYE 2020, there were still 17 municipal audits yet to be received by the state. Likewise, for FYE 2021, there were still ten counties and 97 municipalities that had yet to submit their audit almost a year later.

Continued challenges related to the timeliness of audit report submissions in North Carolina have prompted local leaders to establish more intense consequences for those units on the UAL. In July of 2022, at the North Carolina Government of Finance Officers Association conference, the LGC provided an update that there would be more specific guidelines set in place for those on the UAL (Edmundson & McCullen, 2022). According to their presentation, units on the assistance list as of October 1, 2022, local leaders would be required to complete a minimum of six continuing education hours and, in

addition, would have to seek LGC approval for debt issuance under stricter circumstances:

1. Contracts that extend for three or more years.
2. Contracts that obligate the unit to at least \$50,000.
3. Does not change statutory language that a contract must meet all of four defined criteria to require LGC approval.

As of October 2022, North Carolina currently had 139 municipalities, 12 counties, and five special districts on the UAL. From this group, 32 municipalities, three counties, and four districts had yet to submit their FYE 2021 audit reports (NC State Treasurer, 2022). As of February 2023, only 820 of 1,100 annual audit reports had been received by the LGC (Edmundson, 2023). These findings place the FYE 2022 audit submission rate 5% behind FYE 2021. To simplify the audit process, legislators with the LGC are in the discovery and design stage of creating a redefined approach for certain units across North Carolina. Within the next two years, some LGUs will be able to remove certain processes of the audit to reduce the number of late reports. The timing of this research study came when understanding the components of the audit that significantly influence audit timeliness is critical. In addition, when considering the potential financial burden to the taxpayers, limited services or programs, and LGU reputational risk, it is important for LGUs to develop strategic plans to avoid placement on the UAL. Therefore, to combat these issues and the potential detriment they will have on the units' citizens, it is necessary to understand which variables significantly influence the timeliness in which financial statements are audited and released back to the public audience in North Carolina's local governments.

Statement of the Research Question

Recurring late audit reports have gained attention recently from North Carolina legislators resulting in newly developed consequences for units not submitting reports on time. Prior research identified key factors within the audit process that influenced the relationship between certain predictive factors and audit report submission delays by LGUs (Cagle, 2012). Prior research analyzed these predictive factors on populations smaller than 5,000 and recommended further research into these factors for larger populations (Cagle, 2012). This study compared the findings from Cagle (2012) that studied LGUs with populations smaller than 5,000 in Mississippi with LGUs in NC with populations under 5,000 to validate and provide additional evidence to the prior study. In addition to minimizing consequences for smaller units, the predictive factors were extended in this study to populations greater than 5,000, with the purpose of minimizing the likelihood of penalizing consequences for NC LGUs, as recommended in Cagle's (2012) study. This research study extended the predictor factors of prior research into a legislative environment that imposed consequences on LGUs that submitted late audit reports.

Prior research analyzed these predictor factors in a legislative environment without consequences for late submissions. As discussed, Henke & Maher (2016) stated that no incentive to submit an audit on time existed at a universal level. Lack of incentive, as described in Henke & Maher (2016), arises from a lack of universal consequences for submitting audit reports passed their respective due dates. In the Cagle (2012) study, there were no consequences imposed for submitting a late audit report, as opposed to the structure in North Carolina that places LGUs on the UAL for submitting late reports,

therefore, imposing consequences. Considering the difference in legal environments across both studies, this research study contributed an understanding to the literature of how imposed consequences influenced the findings of predictor factors that influenced audit report delay and on-time submissions. The research presented here explored the following research question: are delayed audit reports of LGUs in North Carolina related to report messaging and managerial competency, accountability, or audit environment factors?

The purpose of this study was to analyze which variables influenced audit report delays for LGUs in North Carolina. In addition, due to the LGC regulating an October 31 due date and December 1 grace period, this study also analyzed the factors of late audit filings in North Carolina to determine what variables differed between the units that filed audits late versus those LGUs that filed audits within the established timelines. The subordinated research questions outlined in this study were related to the impact of audit report timeliness as structured in the Cagle (2012) study: (a) Report message content and managerial competency, (b) Accountability, and (c) the Audit environment. Considering this study's comparison and extension purpose, the subordinated research questions were structured to remain consistent for comparability proposes.

Prior literature has examined characteristics that tend to impact the quality of financial statements. Call et al. (2017) discovered that those entities that employed high-quality and competent staff produced better-quality financial statements, representing timeliness improvement. The Ferrer (2016) signaling theory study, found that management had a direct incentive to report financial information to end users when there were positive messages to be shared. However, when there were negative messages,

management was not incentivized to submit timely financial information. A positive report message shall include strong financial performance, no audit findings, and an auditor-issued unqualified opinion. LGUs must comply with generally accepted accounting principles (GAAP), and they are expected to receive an unqualified auditor-issued opinion. While an unqualified opinion is the expectation, LGUs can receive three other opinion types: adverse, disclaimer, and qualified. Therefore, this study considered all other than unqualified opinions as one category due to the expectation of not receiving an opinion other than unqualified. To gain an understanding of the influence the report message content and managerial competency group of variables had over audit timeliness, which was measured as (a) audit report delay, or the number of days between the fiscal year-end June 30, 2021, and the LGC stamped review date, and (b) late, which was defined as whether an LGU submitted its audit report prior to the grace-period date December 1, 2021. This research study presented the following subordinated research questions:

- 1) Are key financial statement ratios a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?
- 2) Are the total number of reported audit findings a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?
- 3) Is an other-than-unqualified audit opinion a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?

LGUs can engage in debt obligations to exercise and enhance purchasing power for the unit's leaders. Therefore, higher debt levels require more in-depth management responsibility internally, leading to greater accountability for reporting financial information to external users as suggested by Aswar et al. (2022). Single Audit Reports are required from LGUs that receive and expend over \$500,000 in state awards and \$750,000 in federal awards during the fiscal year. This special audit report is due within 30 days of receiving the unit's audit report or 9 months after fiscal year-end, whichever occurs sooner. The Single Audit Report adds an additional level of accountability. Auditors perform extended financial and control reviews to ensure that federal and state funds have been expended in a manner that abides by North Carolina General Statute Chapter 159, program rules and regulations, and accounting principles adopted by the GASB. To gain an understanding of the influence accountability had on audit timeliness, which was measured as (a) audit report delay, or the number of days between the fiscal year-end June 30, 2021 and the LGC stamped review date, and (b) late, which was defined as whether an LGU submitted its audit report after the grace-period date December 1, 2021. This research study presented the following subordinated research questions:

- 4) Is the amount of debt outstanding by a local government unit a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?
- 5) Is the requirement to submit a Single Audit a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?

Considering that LGUs of North Carolina have differing structures, it should not be a surprise that their audit environments will also tend to differ. Counties and municipalities are comprised of different size budgets that contain various projects and services (Millonzi, 2018). While financial statements are prepared in conformity with GAAP for comparability amongst units, several components related directly to the audit environment may influence the time it takes to complete the required annual report. LGU's operating budgets are primarily composed of taxpayer dollars; therefore, the more taxpayers an LGU has not only increases the population size but also allows for additional expending on projects. The cost associated with more projects requires additional major funds on the financial statements per accounting guidelines. Increased major funds have been reported to be a predictor of late audit reports. The more major funds an audit firm must review, the longer it may take to complete an accurate review of the financial statements. North Carolina ranges over 53,000 square miles, with auditors located throughout the state. Some audit firms practicing in N.C. are headquartered outside of N.C. Therefore, reporting may be delayed depending on the distance the auditing firm travels to complete an audit. Another consideration is how many engagements the auditing firm is currently contracted to complete. Depending on how many reports the firm is expected to file before the state-mandated deadline can determine how quickly a report is furnished to the LGC. For this study, to measure the influence that the audit environment had over audit report delay, the following sub-questions were presented:

- 6) Are LGUS with three or more reported major funds a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?
- 7) Are the total number of miles between the auditor's headquarters and the audit client's administrative location a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?
- 8) Are LGUs contracted with a CPA firm that performed two or more local government audits a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?

Research Design and Methodology

This research utilized the ordinary least squares (OLS) regression to estimate the effects of several variables related to the submission time of audit reports to the North Carolina Department of State Treasurer LGC division. This research also utilized logistic regression to estimate the effects several variables had on filing annual audit reports after the 4 month filing deadline imposed by the LGC, as opposed to units that filed on time.

In previous literature on audit report timeliness, audit report delay was measured as the amount of time between the units' fiscal year-end and the date on the audit report. However, in this study, audit report delays were measured by the amount of time between the fiscal year end (June 30) and the LGC audit report review stamp date to align more with the goal of transparency to citizens. The reason for the measurement change for this study is that the annual audit report cannot be released to the public until the LGC has reviewed it. Therefore, utilizing an audit report date only captures the amount of time it took the auditors themselves to review and issue an opinion versus the highest level of

approval needed to furnish such requirements. While one of the purposes of this research study was to compare the findings of predictor factors influence on populations smaller than 5,000 to those in the Cagle (2012) study, it should be noted that the report dates are different between the two studies. Therefore, some differences were anticipated.

Importance of the Research

The North Carolina Department of State Treasurer is working in conjunction with the LGC to implement new consequences for those LGUs that are late in submitting their required annual audit report. As of January 23, 2023, 23 LGUs in North Carolina had yet to submit their FYE 2021 audit report. For those 435 LGUs in North Carolina that submitted their audit reports after the state-mandated due date of October 31, 2021, it took, on average, an additional 70 days to submit their report to the LGC. While some units were only one day late submitting their reports, some were submitted as late as 403 days past the due date. The North Carolina Department of State Treasurer allows for a 30-day grace period from the initial due date of October 31, 2021, with reports beginning to be classified as late after December 1, 2021. For those 198 LGUs that submitted reports after the grace period, it took them, on average, an additional 100 days to submit their audit reports. While many governmental units submitted exactly on December 1, of those submitting after the grace period, lateness ranged from 5 to 372 days (NC State Treasurer, 2023).

To achieve the goal of transparency and accessibility to end users of local government financial statements, and for unit leaders to make useful decisions, North Carolina government units must decrease the amount of time it takes to submit audit reports to the LGC. This research was significant because understanding how certain

factors influenced the timeliness of audit reports can assist local government leaders in making effective strategic plans with changes to implement that will improve their audit process moving forward. Implemented changes should result in a decreased likelihood that a government unit would be placed on the UAL, ultimately minimizing citizen impact due to local leaders' constraint consequences imposed for consistently submitting late audit reports.

Contributions of the Study

This research study accepted the challenge for future research on larger populations as it related to the independent variable groupings of (a) Report message and managerial competency, (b) Accountability, and (c) Audit environment (Cagle, 2012). This study provided insight into the differences observed in predictive factors between the group of governmental units that filed timely audit reports as opposed to those that submitted late audit reports. These insights extended an understanding of how those relationships may differ into larger populations, while revisiting smaller populations for a comparison of prior studies. In addition to the predictor factors studied in the prior research of Cagle (2012), this study also tested an additional solvency measurement, debt-to-equity. Since this study utilized the LGC review stamp date to measure audit report delay, it produced a more transparent reflection of how much time it took for end users to gain accessibility to annual audit reports. This was the first study in North Carolina that reviewed how these groups of variables impacted audit timeliness, which will benefit the state. Leaders and decision-makers within the state will be able to take the findings of this study and create a structured rating system related to each tested variable. This will allow for strategic planning to execute timely audits, as leaders will be able to

predict which units may have a low, moderate, or high risk of a delayed audit report. The findings of this study were intended to empower leaders to implement changes that best align with GASB's definition of quality financial reporting.

In addition, North Carolina LGC leaders recently announced that the team is actively exploring alternatives to the full-scope audit reporting process currently implemented in North Carolina. At the time of this study, leaders are researching the areas within the audit process that can be minimized or eliminated for certain government units. Within two years, NC will pilot a newly designed audit report for certain units of government with the goal of reducing how many audits are submitted late, after the December 1 grace period, and the audit report delay time between the fiscal year-end June 30, and the date in which the LGC stamps the audit report reviewed.

Limitations of the Study

Considering this research study collected data solely on counties and municipalities located in North Carolina, future research and users of this study's findings should be alert when generalizing the results compared to other regions. In addition, North Carolina has one consistent due date for all government entities and strict rules concerning firms that the LGC authorizes to perform independent audits. This may make it difficult to compare states with different due dates and loose rules around auditing firm utilization. Prior literature utilized the audit report date to measure audit report delays in LGUS. However, this research utilized the LGC stamp review date on the audit report, which comes after the audit report has been issued. Therefore, there may be some delay in the number of days between when the audit firm issued the audit report and when the LGC received it to review. However, the additional time between the audit

report date and LGC stamp review date does not impact the findings of this study, as the study addressed the accessibility of end-users receiving financial statements. End-users cannot access the audited financial statements until they have been stamped reviewed by the LGC (NC General Statutes 159-34).

Organization

The remaining chapters of this dissertation are structured as follows. Chapter 2 presents a literature review of prior studies on delayed audit reports in governmental settings. Chapter 3 explains the research and sub-research questions and discusses the methodologies used to analyze the impacting variables on audit delay and the variables that differed between the units that filed audits on time and those that were late. Chapter 4 details the findings of the statistical approaches used to measure the variables of this study. Chapter 5 will provide a summarized conclusion to this study, present limitations, and suggest areas of focus for future studies relating to audit report delay.

Chapter 2: Review of the Literature

Audit Background

Annual Audit

Public companies operating within the United States must furnish annual audit reports of their financial statements and internal controls. These audits assure external stakeholders and users that management has presented a “true and fair” presentation of the organization’s performance and position (PWC, 2017). Auditors independently review supporting documentation provided by entity leaders and formulate an opinion related to the presentation of the received material. The independent nature of the auditor role has led to arguments throughout the literature (DeZoort & Harrison, 2018; Kreuter et al., 2020; Rustiarini et al., 2021). However, one consistent finding relating to governmental audits and external audit firms is that the longer a firm is contracted to perform the annual audit for the same entity, the less likely the firm is in identifying internal control deficiencies (Feng, 2020; Yang, 2021).

In accordance with GASB Statement 34, the purpose of the annual audit is to provide transparency to the governing board and citizens (Patrick, 2010). Transparency in this study is defined as a clear interpretation of financial information by most users regardless of their education or career backgrounds (Stalebrink, 2019). Transparency to citizens is critical, as they provide most of the funding through tax payments to LGUs and, according to Furgan et al. (2020), audit findings and timeliness have a direct negative impact on citizens.

Audit Report Date

Throughout previous audit report delay literature, there has been constant discussion about how audit report delay is measured. The most consistent means of defining audit report delay has been to measure the amount of time between the end of the fiscal year and the date of the auditor's report as established in the foundation of Dwyer & Wilson (1989) with the creation of the report-time model. Historically, the audit report date coincided with the date that auditors had successfully completed most of the fieldwork required to issue an opinion on the financial statements and internal controls of the audited entity (Lambert et al., 2017; Pizzini et al., 2015). However, in current practices, the audit report's date characteristics have changed. The date of the audit report now aligns with when the LGU's financial statements have been received, reviewed, and an opinion issued by the independent audit firm. Glover et al. (2022) completed a study to determine the impact change in audit report date characteristics had on audit report delay for U.S. publicly traded companies. Their analysis suggested that future research concerning audit timeliness consider the updated audit report date and avoids referencing fieldwork completion as that is not a genuinely measurable component. Therefore, this current research study utilized the date the LGC stamped the audit report as reviewed, as they are the final reviewers before statements are displayed on the North Carolina Department of State Treasurer website for external users.

Audit Report Delay

Annual financial statements are prepared for end users to make informed decisions. An audit report delay occurs when an independent auditor takes longer to complete the audit report. When reports are delayed, end-user confidence is reduced, and

the competency of the financial manager is questioned. Since tax dollars primarily funding most units in North Carolina are from citizens, transparency of financial performance and position is the key to communicating how citizens' "investments" have been managed. Yusuf & Jordan (2017) researched to gauge the accessibility of published information. Their study engaged accessibility, readability, and timeliness of the Manager's Discussion and Analysis (MDA, included in the audit report) reporting. The MDA provides a layman summary of critical financial indicators contained within the completed audit report. While those measured in the Yusuf & Jordan (2017) study preferred to receive audited financial documents within two to three months of the fiscal year close, findings suggest that most units were not publishing their financial statements until six months or longer. By receiving audits so late, there is a lack of time to implement changes to the current or upcoming fiscal years operations. In addition, a delayed audit report reduces a leader's capability to respond to internal control or regulation changes suggested by the auditing firm.

Prior research examined many variables to measure the significance each had on delayed audit reports throughout changing settings. Regarding governmental audits, Johnson et al. (2002) considered how seasonal variations could influence the timeliness of audit reports. Under their study, LGUs with fiscal year-end close dates of June 30, September 30, and December 31 were observed. Findings suggested that entities least preferred the December 31 close date, as this was the busy season for most accounting firms with calendar end events occurring. Their study also demonstrated that those government units that closed their books on June 30 experienced shorter audit report

delay times, which provided motivation to review North Carolina's audit delay time as the state is regulated by a year-end close date of June 30.

Report Message and Managerial Competency

Financial Ratios

Prior literature has examined financial ratios' influence on various characteristics associated with the financial statement audit. This research study considered themes modeled under the Cagle (2012) study; the first theme, report message and managerial competency in this prior study included financial ratios. In previous research, financial performance and financial position were measured for their influence on audit delays. The study found that the financial performance ratio, measured by net assets divided by revenues, had no statistical significance on delayed audit reports. Contradicting are the findings supported through measuring the financial position ratios, which were measured as the change in net assets divided by revenue that suggested there was statistical significance in audits that were delayed.

In another study by Haryani (2014), financial ratios were measured through a company's solvency. The theme of solvency considers the capability of a business to pay back its short and long-term debt. Haryani (2014) found that companies experiencing high debt-to-asset ratios were closely associated with audits delayed for an extended period. These findings were further supported by the works of Julia (2020), which measured a variety of financial ratios to determine their impact on delayed audit reports that found solvency to be a statistically significant variable. Finally, contradicting the findings of prior literature, Annisa & Hamzah (2021) recently conducted a study of mining companies listed on the Indonesia Stock Exchange (ISE) between 2017-2019 to

determine if the debt-to-equity ratio (as a component of solvency) influenced delayed audit reports. Their study demonstrated no statistically significant relationship between those companies with higher debt-to-equity ratios and their audits being delayed versus those with lower ratios. However, Tanulia et al. (2022) found that debt-to-equity ratios had a significant negative affect on the timeliness of financial statements. Annisa & Hamzah (2021) and Tanulia et al. (2022) both sampled public trading companies to determine the influence of debt-to-equity on audit report delays. These two recent studies contradict each other with their findings, prompting motivation to research how debt-to-equity in a local government environment influenced audit report delays. By analyzing debt-to-equity in a different environment, a new perspective was shared. This research study analyzed data collected from the same years as the prior two discussed studies, allowing for relevancy in the topic of debt-equity as a variable for measuring estimated effects on audit report delay. The contradictions between these pieces of literature served as motivation to observe financial ratios that portray the government units' outstanding debt obligations, financial performance, and position.

Audit Findings

Analyzing and measuring the amount and type of audit findings a company encounters on its financial statements will help increase transparency to end users. Audit findings have been reviewed throughout the literature as potential indicators for the performance of a government unit. While some have demonstrated that there is no relationship between audit findings and the performance of the local government (Wijayanti & Suryandari, 2020), others have found that there is a significant relationship between financial performance and audit findings (Hartati, 2021). Differences in

responses to the influence findings have on audit report delays are attributed to the nature in which each study was conducted. Prior research has measured findings in terms of the total number of findings issued, while others consider the complexity of the finding to determine the influence (Hartati, 2021; Wijayanti & Suryandari, 2020).

Motivation to include audit findings as a potential indicator in this study was drawn from the North Carolina study conducted via Modlin (2017). Their study reexamined the audit issues recurring within North Carolina and found that audit report issues were declining. However, compliance issues were increasing. An increase in compliance issues could signal a delayed audit report, as auditors have to spend more time determining where the control went wrong and thoroughly review implemented processes of the audited LGU. As it further pertains to local government environments, the Cagle (2012) study found a statistical relationship between more audit findings and increased audit report delay. Therefore, this research study focused on the number of audit findings a LGU experienced in its audit report and how they influenced audit timeliness.

Audit Opinion

While the auditor and its firm are not responsible for the quality of financial statements prepared for end users, they are tasked with issuing an opinion on the presentation of the financial statements regarding the unit's conformity with GAAP. The auditor's opinion on the financial statements, whether qualified, unqualified, adverse, or disclaimer, provide peace of mind to those dependent on financial statements to make decisions (Akther & Feng, 2021; Carmichael, 2004). While confidence may be offered to end users of audited financial reports, the audit report letter included inside the audited

financial report specifically states that management is responsible for the preparation and presentation of the financial statements and internal control over reporting, while the auditor is solely responsible for expressing an opinion on the statements.

Due to conflicts arising from investors and stakeholders against auditors and attorneys, the American Institute of Certified Public Accountants revisited the wording surrounding audit opinions. With newly appointed Commissions on Auditor's Responsibilities, an unqualified audit opinion is now stated and interpreted as presented fairly in conformity with generally accepted accounting principles (Chalmers, 1975). A terminology change was required to protect auditors from the outcomes of the scope of work they performed for varying clients. This consistency allows for transparent comparisons across financial statements within industries and specific lines of business.

The consistency of the audit opinion meaning is essential to this research study, as it allowed for a fair comparison across the different government units in North Carolina. In addition, knowing that each entity-audited opinion follows the same structure provides validation when interpreting the statistical findings of the audit opinion variable on audit report delays. This is critical as previous literature had varying findings regarding whether or not the audit opinion influenced delayed audit reports. To better understand the conflicting findings, prior literature in other industries was consulted and analyzed, along with research conducted in local governments for other states.

Putra & Wilopo (2018) study on companies listed on the ISE during 2011-2015 found that audit opinion had no statistical significance on delayed submission of audit reports. Bahri & Amnia (2020) further supported the previous study's findings two years later through additional research on companies listed on ISE. In their study, 31

companies were observed for 2 years between 2017 and 2018. Their multiple regression analysis yielded a significance value of 0.313, which did not support the hypothesis that audit opinion influenced delayed audit reports.

As it more specifically relates to local government organizations, Cagle (2012) also researched key variables influencing delayed audit reports. Audit opinion in Cagle's study was not a statistically significant variable under the report message theme, which stated that units must have strong financial performance, absence of audit findings, and an unqualified audit opinion to be classified as favorable. While their study examined municipalities in Mississippi with populations under 5,000, this study compared North Carolina governments of consistent sizes while expanding the research to larger-sized municipalities, as suggested in the future research portion of Cagle's (2012) study, therefore, providing justification for further research as to whether there was a significance found under a different legal environment and population size.

Accountability

Long-Term Debt Obligations

LGUs that acquire debt to fund capital improvements or projects, purchase fixed assets or maintain operations must include this information in their financial statements. In addition, these units have external reporting compliances that they must abide by to withhold specific bond ratings and avoid fines or fees. Prior literature has reviewed the influence that bonds or various forms of debt have on the timeliness of the audit report. Early works of Payne & Jensen (2002) suggest that when a government unit possesses debt, there will be a decrease in audit delay. However, more recent studies, as conducted by Cohen & Leventis (2013) and Cagle et al. (2014), contradicted those findings by

suggesting that levels of debt have a statistically significant influence on audit report delays, as the occurrence of debt results in more delayed audit reports. Cohen & Leventis (2013) defended their findings by asserting that auditors are more thorough and cautious when reviewing clients' financial statements with high debt levels. Cagle et al. (2014) defended their findings by suggesting that higher debt levels equated to prolonged audit reviews, resulting in delayed reporting.

While there has been an abundance of studies conducted in prior literature that aimed to measure how government units having debt characteristics influence audit report delays, Parkash et al. (2022) recently conducted a survey of U.S. public firms from 2000-2017 to measure the relationship between a firm having loan covenants and the timeliness of their audit reports. Their study produced a statistically significant relationship between firms with loan covenants furnishing delayed audit reports in comparison to those who did not have any loan covenants. Therefore, motivation was drawn from their work along with prior reviewed literature to include long-term debt obligations as a variable for testing the accountability of LGUs in North Carolina, as these LGUs have strict enforcements they must abide by general statutes as it relates to borrowing money. In addition, LGUs in N.C. that fail to comply with on-time audits consistently will find themselves on the UAL and not eligible to engage in certain debt agreements.

Single Audit Requirement

LGUs across the United States receive federal grants on an annual basis. The grant amount fluctuates between recipients, programs, and award years. However, external compliance remains consistent; those government units that have

expended/received state funds over \$500,000 and \$750,000 in federally awarded packages are all subject to having a single audit performed. While the nature of the single audit has changed four major times throughout history since its first establishment in 1984, Tassin et al. (2019) assert that there are two primary objectives for requiring a single audit; “increase grantee accountability” and “decrease the administrative burden for grantees.” Therefore, a unit's responsibility to perform this particular audit type ensures that local leaders are accountable for overseeing the financial safety of an organization’s trusted assets.

Payne & Jensen (2002) found that those government units responsible for complying with single audit requirements produced untimely audits. Their findings were more recently supported by the works of Cagle et al. (2014) and Elder et al. (2015). According to Cagle et al. (2014), a positive correlation existed between the requirement for a single audit and increased audit time. Whereas Elder et al. (2015) also agreed with the statistical relationship, their perspective viewed it as an issue of financial statement complexity, which led to the increased audit report time.

Audit Environment

Financial Statement Complexity (No. of Major Funds)

Audit timeliness has been measured against financial statement complexity in the audit report delay literature. Financial statement complexity has been measured according to the presentation of financial information. Prior literature considered the accounting standards required for statement preparation as a predictor of audit report delay. At one point, there were no defined principles regarding how statements had to be prepared. However, as the need for financial transparency increased, regulators have set guidelines

for the presentation of financial statements calling for compliance with GAAP. Prior literature compared the timeliness of audit reports as a comparison between the financial complexity of implementing principles-based versus rules-based accounting standards (Song & Zhou, 2021). While differing accounting methods have been shown to influence audit reporting timelines, North Carolina LGUs must present their financial statements in conformity with the modified accrual basis of accounting (Millonzi, 2018). Therefore, the complexity of financial statements should be considered from a different perspective for the LGUs observed in this research study. The Cagle (2012) study was one of the first to consider the complexity that major funds added to the audit process. In their study, the number of major funds audited was found to have a significant influence on audit report delays. Those government units with more major funds experienced a delay in their audits versus those who had less. There is limited prior research on the influence the number of funds audited has on the delay of an audit. However, this study further explored this variable in a larger population.

Firm Distance

Considering that LGUs must be audited annually by independent external auditors, it is essential to understand how certain auditor characteristics influence audits being delayed. In prior literature, an avenue narrowly explored is the relation of the geographical locations of an auditing firm in correlation to their client. In early literature, Choi et al. (2012) asserted that the distance between the audit firm and the client affected audit quality and resulted in delayed audit reports. In contrast, the Cagle et al. (2014) study failed to produce evidence that miles traveled were related to increased audit time. However, unlike the previously mentioned study, their data set only included

characteristics for one state. When looking at a more recent study that removes the one-state limit, the findings of López & Rich (2017) demonstrated that auditors who had to drive further to review clients' books were more rigorous in their processes, which led to increased audit times and delays. Considering the advancement of technology and coronavirus restrictions over the past two years, this research study contributed to the conversation surrounding firm distance under new reforms.

Prior literature has shown that there are several characteristics that companies consider an independent audit firm before they select them. Recent research by Francis et al. (2022) focused on how the distance between the company headquarters and the firm's office influenced the quality of financial statement audits. The foundation for the hypothesis formulated in their study came from the notion that partners who live closer to their clients are provided with more chances to engage, which ultimately leads to a better understanding of the client's organizational structure. These periodic engagements also assist in defusing any misunderstandings that clients may experience in reporting.

Therefore, giving them a financial statement quality advantage over those units where independent auditors are stationed further away with limited to no periodic engagements. Findings from their study suggested that when the auditing firm was geographically more distant, the audit quality was lower than that of those whose auditing firm is closer. While this study measured the quality of financial statements under the definition most closely aligned with Choi et al. (2012), this research study considered audit quality from a timeliness perspective, adding justification for observing this variable in the local government setting.

Audit Firm Engagements (Number of NC LGU Clients)

Mutiara et al. (2018) studied the influence that a public accountant firm's size had on audit report delays for those companies operating in the infrastructure, transportation, and utility industry. Findings from their study demonstrated that the size of a public accountant firm did not have an impact on audit report delay. More recent literature contradicted the negative relationship that Arifin (2016) uncovered between firm size and audit report delays. Wan Hussin et al. (2018) demonstrated that audit firms are attempting to reduce lead auditor workload to improve audit quality. This research study contributed to understanding how audit firms manage multiple clients with similar characteristics in a timely manner. While there is a clear divide between the perspectives on the relationship between public accountant firm size and audit report delays, this study added to the literature by providing an understanding of how auditors engaged in local government audits during the same period influenced the timeliness of the audit.

Theoretical Framework

Agency Theory

LGUs in North Carolina are composed of cities, counties, and towns. Each of these units of government follows the principal-agent segment of Agency Theory. For every LGU, the citizens, known as taxpayers, vote periodically for leaders to sit on the BOC. These commissioners are tasked with upholding the trust and wishes of the citizens that provided them with power. To effectively perform the logistics required to satisfy citizens, the BOC then appoints a county or city manager to oversee the operations of the organization in a manner directed and governed by the BOC (Millonzi, 2018). Therefore, establishing a second principal-agent relationship amongst the BOC and the appointed

manager. Considering the citizen's vote-in board members to govern the district's performance, audit reports can be utilized to decrease the information asymmetry between the two parties. Timely furnished financial statements help reduce the agency cost associated with distrust between taxpayers and appointed leaders (Verbruggen et al., 2015). While citizens may not trust that their local government has their best interest in consideration, an independent auditor's review of the unit's financial statements has been demonstrated as the most effective means of controlling management actions (Raimo et al., 2021).

Signaling and Information Theory

The main form of information sharing with citizens of LGUs is furnishing financial statements. Financial statements contain significant ratios that signal to external users the financial performance and position of the audited unit. Research has discovered that the timeliness in which financial statements are disbursed signals good or bad financial management (Hamidah & Arisukma, 2020). Timely financial statement reporting has been tested and found in several studies to have a positive relationship with healthy financial information. Signaling theory supports the findings from prior literature as the framework suggests that when financial managers have favorable financial statuses to report, they will be motivated to do so more quickly. At the same time, those with non-favorable messages will be more inclined to extend the audit process, delaying the findings and announcements to the general public or its intended end users. Considering the financial crisis experienced by LGUs during the stock market crash (Stick, 2022), banks that lend debt to local governments utilize the financial statements as a signal of how well an organization is performing compared to others requesting funding (Besley &

Brigham, 2008). Recurring late audits signal deeper financial and compliance issues in an organization, according to Bartov & Konchitchki (2017). As such, leaders of the North Carolina Department of State Treasurer have called for auditors to produce findings in their audit report disclosing the late status and any contributing factors so that they are addressed by management in the upcoming year (Edmundson & McCullen, 2019).

While signaling theory provides an indicator to external users of an organization's financial performance and position, information theory validates the knowledge that has been shared with external users throughout an organization's fiscal year. Through previous literature, information theory has been reflected through the audit process as audits provide LGUs with credibility that the statements they have issued throughout the fiscal year are precise (Hay & Cordery, 2018). Information theory intertwines with the confirmation hypothesis theory, which states that the audit validates all statements and announcements regarding financial information published by the LGU.

Compliance Theory

All LGUs in North Carolina must utilize the modified accrual basis of accounting in accordance with GAAP. When auditors issue an unqualified audit opinion, compliance with GAAP and applicable regulations have been confirmed. The confirmation of accounting compliance found in the auditor's report provides external users with confidence (Martynyuk et al., 2021). Modlin (2017) found North Carolina LGUs to be experiencing a decline in financial reporting findings but an increase in compliance issues.

Population Theory

Since the stock market crash occurred, researchers have worked diligently to determine which factors were key influencers. For example, Buendia-Carrillo et al. (2020) findings suggested that municipality size contributed to whether a unit defaulted on its obligations. In addition, prior literature has studied population to directly relate to how much debt an organization may borrow (Greer, 2016; Sole'Olle, 2006; Wang & Hou, 2012).

Kristanti & Mulya (2021) studied property and real estate companies on the ISE and found company size to be a mediating variable for audit delay. Their contributions provide relevance to test LGUs operating under smaller populations in N.C. compared to the study conducted by Cagle (2012). Municipalities in their study had a majority population under 5,000. In contrast, the municipalities of N.C. had more extensive characteristics allowing for a comparison of prior findings while expanding to understand the influences under a larger population of those greater than 5,000. Therefore, this current research study provided contributions by testing the previous studies' variables against LGUs operating under larger populations in N.C.

Chapter 3: Methodology

Data, Variables, and Research Questions

Data

This research study analyzed variables influencing the timeliness of audit reporting by North Carolina's local governments. This study also examined the differences in the variables between those units that file their audits on time and those that submit their audit reports after the LGC allowed grace period. In addition, this study compared the findings of the impact of such variables on audit report delay in units with a population larger than 5,000 in contrast to the findings in prior studies of those units with a population smaller than 5,000.

Variables

In this research, the dependent variable associated with audit report delay (DELAY) was understood to be the number of days from the fiscal year end of June 30 to the date the LGC stamped the audit report as reviewed. Foundational audit report delay literature has tended to define audit report delay as the number of days between fiscal year-end and audit report date (Giroux & McLelland, 2000; Johnson, 1996; Rubin, 1992). In recent literature, audit report delay has been referred to as the elapsed time between the end of the fiscal year and the end of the audit work (Fathi & Gerayli, 2017; Whittwotth & Lambert, 2014), which is along the same lines as utilizing the audit report date as demonstrated in earlier literature. However, for transparency purposes, the day on which the state LGC division reviews the audit report is a more accurate reflection of the time in which the reports are available to the public. This is because the LGC is the final reviewer before reports can be approved for publication. Therefore, this research study

referred to audit report delay as the time between the end of the fiscal year and the LGC stamped review date.

In this research, a late audit (LATE) was understood to be an audit report that was submitted to the LGC after December 1. For the purpose of this study, late submissions of the annual audit report were coded “1”, as opposed to those submitted before the end of the day on December 1, which were coded as “0”. According to NC GS159-34(a), all North Carolina local governments must submit annual audited financial statements and audit reports by October 31. The North Carolina Department of State Treasurer and LGC division allows for a 30-day grace period, marking audit reports late received after December 1.

Ordinary least squares (OLS) regression was utilized in this research study to determine the statistically significant variables government units can utilize to predict delays in audited reports. Prior literature has utilized OLS to estimate the effect of several variables on audit report delay (Cagle, 2012; Farag, 2017; Vuko & Čular, 2014). OLS applied to this research, as suggested by Wooditch et al. (2021), due to the nature of attempting to analyze and understand which independent variable(s) were responsible for the variation in the dependent variable. As demonstrated in their piece of literature, the OLS model demonstrates how much each independent variable influences the dependent variable when attempting to measure change in the dependent variable in a quantitative method as opposed to a continuous measurement of yes or no. Hence, OLS models are popular in studies such as this one, where positive errors do not need to be adjusted for through the negative errors or vice versa. OLS models treat errors equally through coefficients that are unbiased estimators.

Logistic regression was also used to determine the statistical significance of variables associated with units that failed to meet the state-mandated deadline. An additional logistics regression was utilized to compare and contrast the significance of variables for units of government that operated in districts with populations smaller than 5,000, as discovered in prior research, against those units that operated in districts with populations greater than 5,000 as in this study. Logistic regression was the preferred statistical model as it was consistent with the approach of Cagle (2012). In addition, logistic regression aids in risk analysis, as discovered by Bayaga (2010), regarding modeling the relationship between the predictor and response variable. The aid comes in the form of understanding the probability of an event occurring. As it relates to LGUs that submitted late audit reports, the logistic regression model demonstrated the probability that each independent variable had influence on the units' late audit submission. Risk is associated with chance, by understanding the probability of an event occurring, management teams are empowered with strategic information.

While there were two dependent variables explored in this study, different statistical approaches were taken to produce findings. For starters, DELAY was measured as the number of days between fiscal year-end and the state-mandated deadline. Therefore, the model needed to target a continuous number, which aligned with the functionality of the OLS model. LATE was measured as either submitted on time or not submitted on time. Those that submit audit reports after the December 1 state-mandated deadline were coded late, and those submitted before were coded on time. Therefore, the model to measure the predictor factors needed to target a categorical response, as evident in the structure of the logistic regression model.

Research Questions

This study modeled report timeliness through the following factors: (a) Report message content and managerial competency, (b) Accountability, and (3) Audit environment. This research proposed the following research question relating to audit report delays; are delayed audit reports of LGUs in North Carolina related to report messaging and managerial competency, accountability, or audit environment factors? The following sub-questions were addressed in this research as it relates to the variable groups for audit report delay:

Report Message Content and Managerial Competency

1. *Are key financial statement ratios a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?*
2. *Are the total number of reported audit findings a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?*
3. *Is an other-than- unqualified audit opinion a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?*

Accountability

4. *Is a larger amount of outstanding debt by a local government unit a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?*

5. *Is the requirement to submit a Single Audit, a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?*

Audit Environment

6. *Are LGUs with three or more reported major funds a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?*
7. *Is the total number of miles between the auditor's office and the audit client's office a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?*
8. *Are LGUs contracted with a CPA firm that performed two or more local government audits a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina-mandated filing deadlines?*

Hypothesis Development

In this study, audit report delay was a function of three groups of variable factors, as presented in the model below:

Audit Report Delay = f (Report message content and managerial competency, Accountability, Audit Environment)

Governmental constraints have been included in prior research studies concerning delayed audit reports. However, data from this study were exclusively gathered from North Carolina LGUs. While prior literature controlled for fiscal-year-end differences among observation groups, this study did not require that control as all of North Carolina local governments operate on the same fiscal calendar July 1- June 30 (Johnson, 1996;

1998; Johnson et al., 2002; Payne & Jensen, 2002). While the previous controlled for differing year-ends, other studies elected to exclude entities whose fiscal year differed from the norm (Fathi & Gerayli, 2017).

Report Message Content and Managerial Competency

Local government leaders utilize the action of timely financial reporting as a means to signal sound financial health to external users. This comes from the notion that when management has good news to report, they will effectively meet deadlines and requirements; however, if there is bad news to be shared, management will delay reporting submissions (Normalita et al., 2020). The foundation for signaling theory as it relates to audit report delays in local government is provided by Dwyer & Wilson (1989), who developed and tested hypotheses related to the timeliness of report submissions as a tool to represent financial management competency. While audit report timeliness has been studied as an indicator of managerial competency, it is not the sole indicator. Key financial indicators in the report message are also considered a representation of managerial competency. Literature has tested the significance of financial indicators through various financial ratios. This study measured financial position and performance in accordance with the Pridgen & Wilder (2011) study. Their study suggested using the following measurements to define the financial position and performance of an LGU:

1. Total Net Assets/Total Revenues
2. Change in Net Assets/Total Net Assets

As referenced above, the first formula (1) was utilized to measure and test financial position (POSITIONS). Hence, this ratio was used to understand the audit report delay experienced by units regarding the proportion of net assets of the LGU to its total

revenue. The second formula (2) was utilized to measure and test the financial performance (PERFORMANCE) of each LGU as it related to the change in net assets of a LGU in ratio to its total net assets for the fiscal year. How much debt and equity an LGU utilized to fund the unit's operations influence on audit timeliness was measured through debt-to-equity ratio (DEBTTOEQUITY) data collection. As previously explained, management has the motive to furnish timely financial reports when they expect to share good news with external users. The potential to announce good news to external users provides an incentive to management to work more quickly to supply the necessary supporting documentation for auditors. The following hypotheses were formulated from the supporting arguments:

H1a: A favorable report message will be negatively associated with audit report delay.

H1b: A favorable report message will be associated with audit reports failing to meet North Carolina-mandated filing deadlines.

In addition to strong financial ratios, the absence of audit findings has been found to be a component of a favorable report message. A positive relationship was found between the number of audit findings and audit report delay in the research of Cagle et al., (2011). Additionally, Wijayanti & Suryandari (2020) found that audit findings impacted the governmental unit's characteristics and the disclosure process. LGUs are issued audit findings for each scenario where the auditing firm discovered noncompliance with state or governmental laws and regulations. Additionally, units can receive findings for each internal control issue discovered by the auditing firm. Audit findings are a signal of management competency as well. No findings signal strong financial practices by leaders

overseeing the finances, and the presence of findings would suggest some oversight on the managers' side. For this study, FINDINGS were categorized as the total number of findings issued by the auditor in the audit report, regardless of the type of finding presented. Drawing from previous literature and the expectations outlined above, the following hypotheses were tested:

H2a: The total number of reported audit findings will be positively associated with an audit report delay.

H2b: The total number of reported audit findings will be associated with audit reports failing to meet North Carolina-mandated deadlines.

Once the auditing firm has thoroughly reviewed all significant documents and financial reports related to government units, the firm is responsible for issuing an opinion on the overall presentation of the financial statements. There are four types of opinions an audit firm can issue: qualified, unqualified, adverse, and disclaimer. Governmental units are expected to receive an unqualified opinion in the auditor report. For the purpose of this research study, data collected regarding the type of OPINION was coded "1" for units receiving a qualified, adverse, or disclaimer opinion. For units receiving an unqualified opinion, a code of "0" was applied. For the property and real estate sector, auditor opinion has been found not to have an effect on audit report delay (Putra & Wilopo, 2018). However, in the governmental industry, opinions have been found to be significantly related to delayed audit reports (Cagle, 2012). Supportive findings from governmental audit report delay literature provided a foundation for the following hypotheses:

H3a: An other-than-unqualified audit opinion will be positively associated with less audit report delays.

H3b: An other-than-unqualified audit opinion will be associated with audit reports failing to meet North Carolina-mandated filing deadlines.

Accountability

Financial statements are used to signal the financial health of a unit to external users. Of those external users, bond issuers for loans and banks can lend to government units. Therefore, timely statements are essential to issuers' decision-making capability. Fathi & Gerayli (2017) found that the presence of debt decreased audit report delay as units had the incentive to ensure statements were furnished on time for their stakeholders. While the Fathi & Gerayli's (2017) study examined debt as the amount of long-term outstanding debt, the Parkash et al. (2022) study measured the number of loan covenants outstanding for the variable debt. Data collected in this study was retrieved directly through available databases provided to the public by the Department of North Carolina State Treasurer. As it related to the number of loan covenants an LGU is responsible for, the databases did not provide this information as it pertained to FY21. Therefore, the model presented in this study measured DEBT as the amount of long-term debt a local government had outstanding at fiscal year-end. The following hypotheses were formalized:

H4a: A larger amount of outstanding debt will be negatively associated with an audit report delay.

H4b: A larger amount of outstanding debt will be associated with audit reports failing to meet North Carolina-mandated filing deadlines.

LGUs that expend more than \$500,000 in state or \$750,000 in federally awarded funds in a fiscal year must submit a Single Audit in addition to their annual audit report. The Single Audit Report is due 9 months after the fiscal year-end or 30 days after the audit report is issued, depending on which comes first. The Single Audit Report contains a complete listing of all state and federally awarded programs in which a unit participated. Due to the nature of this reporting requirement, more audit preparation is required of the LGU's staff, and a more comprehensive review process is required for the auditing firm. In the research of Payne & Jensen (2002), it was found that the requirement of the Single Audit had extended audit report delays. However, the Cagle et al. (2014) study demonstrated a positive correlation between users required to comply with the Single Audit Act and audit report delay. As the study implied that Single Audits are required within 9 months of fiscal year-end close, there is an additional level of accountability applied to local governments, which should be motivation to have audit reports completed sooner than those not required to submit. To measure the variable SINGLE AUDIT, those units required to submit a Single Audit were coded "1," and those not required were coded "0". Drawing from the requirement of the Federal Clearing House to furnish Single Audit Reports by a due date, the following were hypothesized:

H5a: Governmental units required to file a Single Audit will be positively associated with audit report delay.

H5b: Governmental units required to file a Single Audit will be associated with audit reports failing to meet North Carolina-mandated filing deadlines.

Audit Environment

The audit process can present challenges in completing an audit in a timely manner. The workload the audit firm must endure can directly influence the timeliness of completion. When a government unit has multiple major funds, more time must be spent reviewing support documentation for financial information and internal controls. Payne & Jensen (2002) established a structure for the number of major funds a LGU has on its financial statements to be utilized in measuring the influence of major funds on audit report delay. In their study, government units were coded according to the number of funds evident on their financial statements. As outlined in the Payne & Jensen (2002) study, the variable FUNDS were represented through those units with more than three major funds presented on their financial statements, a code of “1” was assigned. For all others, “0” was the respective code. Drawing from prior research, the following hypotheses were constructed.

H6a: LGUs with three or more reported major funds will be positively associated with audit report delay.

H6b: LGUs with three or more reported major funds will be associated with audit reports failing to meet North Carolina-mandated filing deadlines.

Cagle (2012) measured a new variable, DISTANCE, that represented the number of miles between the audit firm headquarters and the government unit’s administrative address. Cagle (2012) argued that more time spent traveling would reduce the number of fieldwork hours available to complete the audit timely. It is argued that audit firms will feel burdened with traveling to further locations, pushing them further down the client engagement list. Management teams of LGUs have control over selecting an independent

audit firm that is approved by the North Carolina Department of State Treasurer. By understanding how distance between the LGU's Finance Department and the independent audit firm influence audit report delays and units submitting reports after the state-mandated deadline, management can contract with firms that are within a specific distance. Implications from this study provide further understanding to managers to empower them to make strategic decisions that will allow for decreased audit report delay and the submission of on time reporting, ultimately, avoiding placement on the UAL. For this study, DISTANCE was measured as the total amount of miles between the audit firm's headquarters and the government units' Finance Department. Findings from their research prompted the following hypotheses:

H7a: The total number of miles between the auditor's headquarters and the audit client's administrative location will be positively associated with the amount of audit report delay.

H7b: The total number of miles between the auditor's headquarters and the audit client's administrative location will be associated with audit reports failing to meet the North Carolina-mandated filing deadline.

The North Carolina Department of State Treasurer requires that audit firms receive direct approval from the LGC to be qualified to perform local government audits. This list is updated annually, and the LGC requires an LGC-stamped and approved contract for the LGU and audit firm to engage each other for the annual audit report completion. North Carolina also requires government units to furnish requests for proposals to solicit audit services. Therefore, an audit firm is assumed to have more expert characteristics as its clientele grows. However, as clientele grows, the audit firm

has to allocate more resources to balance all audit reports that are due by the same date. Therefore, if there are not sufficient increases in staffing, reports may be delayed.

Considering the contributions that the Payne & Jensen (2002) study added to understanding audit report delay in local governments, the variable ENGAGEMENTS was measured as those LGUs contracted with an independent audit firm that engaged in two or more governmental audits during the FYE 2021. LGUs that contracted with an independent audit firm that engaged in two or more governmental audits during the FYE 2021 were coded “1” and those that contracted with an independent audit firm that engaged in only one governmental audit during the FYE 2021 were coded “0”. The following hypotheses were presented:

H8a: LGUs contracted with a CPA firm that performed two or more local government audits will be positively associated with audit report delay.

H8b: LGUs contracted with a CPA firm that performed two or more local government audits will be associated with audit reports failing to meet North Carolina-mandated filing deadlines.

Control Variable:

In this study, data were included from both municipalities and counties. Municipalities and counties have different operations and regulations (Millonzi, 2018). Therefore, to recognize descriptive differences, the control variable (STRUCTURE) was coded “1” if the unit was a county and “0” if it was a municipality. In addition, considering this study compared the findings from LGUs with a population under 5,000, units with a population over 5,000 were coded “1”, while those under were “0”. This

allowed for a comparison of variable influence between the two size groups, however this variable was not included in the regression testing.

Empirical Models

For this study, ordinary-least squares (OLS) regression and logistic regression were used to test the hypotheses outlined in this study. DELAY, which served as the dependent variable in this study, represented the extent of the audit report delay. The dependent variable DELAY was understood in this study to be the number of days from the fiscal year-end, June 30, and the day on which the LGC reviewed the submitted audit report. The study presented the following OLS regression model to test the audit report delay:

$$\text{DELAY} = f(\text{DEBTTTOEQUITY}, \text{POSITION}, \text{PERFORMANCE}, \text{FINDINGS}, \text{DEBT}, \text{SINGLEAUDIT}, \text{FUNDS}, \text{DISTANCE})$$

LATE, the dependent variable in this study represented whether a LGUs met the North Carolina state-mandated deadline. For this study, if an LGU submitted its audit report after the December 1 grace period, the variable was coded as “1”. However, if the LGU submitted its audit report prior to the December 1 deadline, it was coded with “0”. This study presented the following logistic regression model to test the influence of failing to meet North Carolina-mandated deadlines:

$$\text{LATE} = f(\text{DEBTTTOEQUITY}, \text{POSITION}, \text{PERFORMANCE}, \text{FINDINGS}, \text{DEBT}, \text{SINGLEAUDIT}, \text{FUNDS}, \text{DISTANCE})$$

This research relied heavily on data from the annual audited financial statements and financial information reports. The variables in this model have been discussed in detail in prior literature and earlier in this study. Data collected for the variables

OPINION and ENGAGEMENT predicted success perfectly. Therefore, these two variables were not included in the OLS or logistic regression models. Although the variables were not included in the models used for hypotheses testing, they were included in the descriptive statistics section of this research to provide characteristic traits to those groups compared within this study.

Preliminary univariate analyses were conducted in this research study to create a table of descriptive statistics for LGUs that filed on time along with those that did not. Any observed differences in variables between the groups that filed on time compared to those that filed late were analyzed through a t-test for continuous variables and chi-squared from dichotomous variables to further understand the differences. Those variables with directional predictions employed a one-tail test, while those without direction used a two-tailed test. This study then used univariate analysis to explore each independent variable in a comparison style between municipalities and counties. Any observed differences between variables of each group were further analyzed through a t-test for continuous variables and a chi-squared for dichotomous. To test the correlation of the independent variables to the dependent variables of this study, a bivariate coefficient analysis was conducted on each variable. In response to the call for future research in the Cagle (2012) study, univariate analysis also was used to explore each independent variable in a comparison style between LGUs with populations smaller than 5,000 and those larger than 5,000. Any observed differences between variables of each group were further analyzed through a t-test for continuous variables and a chi-squared for dichotomous.

The OLS model for this paper included DELAY as the dependent variable, measured as the number of days between fiscal year-end and the LGC stamped review date. The R-squared and F-statistics value were compared to the findings in prior literature. The next stage of testing for this paper included a logistic regression model. The logistic regression model was used to determine whether the predictor variables included in this study influence whether an audit report is filed LATE. LATE was the dependent variable in the logistic regression model and was represented through coding of “0” if filed before the deadline and “1” if filed after.

Collection Methods

North Carolina is composed of 100 counties and 556 municipalities. For this study, data was collected for each LGU that had submitted both the annual audit report and the financial information report before June 1, 2023, establishing a sample of 513 units for statistical analysis. Units were categorized based on population size to provide a point of comparison to prior research. For this study, those with less than 5,000 citizens were analyzed and statistically tested against the characteristics of those with more than 5,000 citizens. This comparison was based solely on population. However, there was still the dummy variable STRUCTURE, which offered an additional unit characteristic comparison as this research compared the findings of counties with municipalities.

Audit reports are due to the LGC directly from the independent audit firm completing the LGU audit. The LGC then reviews the quality and correctness of the audit reports before publishing them on the North Carolina Department of State Treasurer website for public accessibility. The LGC also requires that the independent audit firm and LGU complete a contract that must be signed and approved by the government unit’s

BOC's chairperson, Finance Director, independent audit firm, and official LGC staff to engage in audit services. The contract establishes the fees and timeline necessary to complete the unit's audit report. From this contract and approved LGC invoices, the North Carolina Department of State Treasurer produces an *Audit Fees by Unit* report that provides information relating to the firm that performed a unit's audit. LGUs must submit their annual audited financial statements to the North Carolina Department of State Treasurer for the LGC staff to review. After the LGC has reviewed the audit report, it is published by the North Carolina Department of State Treasurer online for public accessibility. This process allows for easy accessibility and transparency to those that seek an understanding of LGU's financial statements. Therefore, this research utilized the audit reports, audit information report, and audit fees database found on the North Carolina Department of State Treasurer's website to collect characteristic data for each government unit as it related to report message and managerial competency, accountability, and audit environment variables.

The audit report was located on the North Carolina Department of State Treasurer webpage within the *Annual Audit Reports Submitted to the LGCs* database. The audit report consists of three sections: Introductory, Financial, and Compliance. However, data was collected from two of the sections, Financial and Compliance. From the financial section, data was collected from the *Independent Auditor's Report, Balance Sheet, Management Discussion & Analysis, and the Statement of Revenues, Expenditures, and Changes in Fund Balance* report. From the compliance section, data was collected from the *Independent Auditor's Report on Internal Control over Financial Reporting, the Schedule of Expenditures of Federal and State Awards, and the Schedule of Findings*.

In addition to the Annual Audit Report, LGUs in North Carolina are required to complete the Annual Financial Information Report (AFIR) after the submission of the Annual Audit Report. The AFIR provides additional characteristic data collected within the audit report but in a structure, that provides comparability across NC government units. LGU leaders, typically the Finance Director, are responsible for completing this report and sending it directly to the LGC for review and publication on the North Carolina Department of State Treasurer website for public accessibility. The database for this report is located under *SLG Reporting*. The AFIR consists of six sections: Population, Revenue, Expenditures, Debt, Cash and Investments, and Key Ratios. Data contained within the *Population* and *Debt* categories was collected for the purpose of this research study.

Variables composing the report message and managerial competency group included financial ratios, audit findings, and opinions. EQUITY, PERFORMANCE and POSITION data was collected from the *Balance Sheet* and *the Statement of Revenues, Expenditures, and Changes in Fund Balance*. FINDINGS were collected from the *Schedule of Findings*. The auditor-issued opinion was collected from the *Independent Auditor's Report*.

Variables representing the accountability portion included outstanding long-term debt and the requirement of a Single Audit. To collect data related to DEBT, the *Debt* section of the AFIR was utilized. To collect data related to SINGLE AUDIT, the *Schedule of Expenditures of Federal and State Awards* located in the financial report was utilized.

Variables representing the audit environment portion included the number of major funds, distance, and engagements of the audit firm. For this study, data related to FUNDS was collected from the *Balance Sheet*. Characteristics for the variable DISTANCE were collected using the *Independent Auditor's Report* and the *Management Discussion & Analysis*. In addition to collecting the address location of the audit firm's headquarter office and the administrative location of the government unit, this research used Google Maps as a means to calculate the number of miles between the two offices. To control for the use of toll roads, this study used the mileage calculation from Google Maps that did not include the use of toll roads in the event that there were none in a specific government district or if permission was needed within the audit firm organizational structure to utilize. To quantify the number of local government engagements an audit firm was responsible for during FYE2021, the *Audit Fees by Unit* database was used to collect audit firm invoice occurrences.

The Annual Audit Report, the Annual Financial Information Report, and the Audit Fees by Unit Report are all located on the North Carolina Department of State Treasurer' website for accessible retrieval by end-users. After the data was retrieved from the appropriate database, it was compiled and coded in Excel. From Excel, data collected and stored for each variable was imported and labeled in Stata 18. Stata 18 statistical software was utilized to compute the OLS and logistic regression models that were ran to determine the effect that report message and managerial competency, accountability, and audit environment group of variables had on audit report delay and whether a LGU failed to meet the North Carolina-mandated deadline.

This chapter provided the purpose for each measured variable presented in this study. Contributions from prior research provided the foundation for this study's research design. This study estimated the effects the variables that belonged to the report message and managerial competency, accountability, and audit environment groups had on the timeliness of LGU's filing their annual audit report with the North Carolina Department of State Treasurer. This chapter provided a foundation of the research design developed from prior literature to estimate the effects the groups of variables related to report message and managerial competency, accountability, and audit environment had on LGUs that filed their audit reports before the state-imposed deadline and those that filed their audit reports after the state-mandated deadline. Chapter 3 provided insight as to the intended sample, as well as how the applicable data for each observation in the set was obtained. The remainder of the study is as follows, Chapter 4 presents the statistical findings for the sample as it relates to each independent variable analyzed; Chapter 5 discusses the implications of the study's findings as well as suggestions for future research.

Chapter 4: Results

Restatement of Hypotheses Testing

This research examined audit report delays in North Carolina's local governments. OLS regression was utilized to determine if specific independent variables had an effect on the amount of time captured between the LGU's fiscal year-end (June 30) and the date on which the audited report is stamped as reviewed by the North Carolina Department of State Treasurer LGC department. Additionally, logistic regression was utilized to test if specific independent variables were associated with local government audit reports being submitted and stamped by the LGC after the state-mandated deadline of December 1.

This study assigned the examined independent variables to three categories: (a) Report Content and Managerial Competency, (b) Accountability, and (c) Audit Environment. Findings associated with the hypotheses below are explained in this chapter:

Report Content and Managerial Competency

H1a: A favorable report message will be negatively associated with an audit report delay.

H1b: A favorable report message will be associated with audit reports failing to meet North Carolina-mandated filing deadlines.

H2a: The total number of reported audit findings will be positively associated with an audit report delay.

H2b: The total number of reported audit findings will be associated with audit reports failing to meet North Carolina-mandated deadlines.

H3a: An other-than-unqualified audit opinion will be positively associated with audit report delays.

H3b: An other-than-unqualified audit opinion will be associated with audit reports failing to meet North Carolina-mandated filing deadlines.

Accountability

H4a: A larger amount of outstanding debt will be negatively associated with an audit report delay.

H4b: A larger amount of outstanding debt will be associated with audit reports failing to meet North Carolina-mandated filing deadlines.

H5a: Governmental units required to file a Single Audit will be positively associated with audit report delay.

H5b: Governmental units required to file a Single Audit will be associated with audit reports failing to meet North Carolina-mandated filing deadlines.

Audit Environment

H6a: LGUs with three or more reported major funds will be positively associated with an audit report delay.

H6b: LGUs with three or more reported major funds will be associated with audit reports failing to meet North Carolina-mandated filing deadlines.

H7a: The total number of miles between the auditor's headquarters and the audit client's administrative location will be positively associated with the amount of audit report delay.

H7b: The total number of miles between the auditor's headquarters and the audit client's administrative location will be associated with audit reports failing to meet the North Carolina-mandated filing deadline.

H8a: LGUs contracted with a CPA firm that performed two or more local government audits will be positively associated with an audit report delay.

H8b: LGUs contracted with a CPA firm that performed two or more local government audits will be associated with audit reports failing to meet North Carolina-mandated filing deadlines.

Sample

For this research study, data used to analyze the audit characteristics of North Carolina local governments was collected from the fiscal year 2021 ending June 30. FY21 was selected for this research to ensure that the largest and most relevant sample size was included. By selecting FY21, government units had been provided with ample time beyond October 31, 2021, and December 1, 2021, respective due dates, and grace periods. While the study intended to include all 651 North Carolina LGUs, only 513 were included. Those omitted from the study represented units that had yet to submit audit reports for FY21 and those with incomplete data available through their financial reporting. The sample included units that had submitted their FY21 report as late as February 23, 2023, for municipalities and June 1, 2022, for counties.

From the North Carolina Department of State Treasurer database, a listing of N.C. counties and municipalities provided a population of 100 and 551 observations, respectively. The Annual Audited Financial Reports and Annual Financial Information Reports were accessed and retrieved from the North Carolina Department of State

Treasurer' website. After gathering the available data, 12 counties and 126 municipalities were removed from the sample as their FY21 audit and (or) financial information reports had yet to be submitted as of June 1, 2023.

Descriptive Statistics

Data was collected as described in Chapter 3 across the sample of North Carolina LGUs that submitted their audit reports for FY21 prior to June 1, 2023, Table 1, provides the overall descriptive statistics for the LGUs included in this study. There was a sample size of 513 LGUs that submitted its annual audited financial statements to be reviewed by the LGC. Eight-three percent of the sample included municipalities, while counties represented the remaining 17%. The mean for audit report delay in this study was 182.06 days. Therefore, it took LGUs an average of 182.06 days to have its audit report stamped reviewed by the LGC after the fiscal year end of June 1, 2021. As discussed in the literature, prior research uncovered the perception of when laymen benefited from receiving the audit report. The mean audit report delay demonstrated in North Carolina's LGUs exceeded the acceptable period of four months after year-end in which end users of audited financial statements perceived the information within the audited reports to be useful in decision-making. Seventy-five percent of LGUs in this study submitted late audit reports. This finding demonstrates that three-fourths of the state failed to meet the state-mandated deadline. Considering the consequences as described in Chapter 1 and further in Chapter 5, these findings demonstrated that a vast majority of the state was at risk of placement on the UAL. North Carolina created the LGC to assist in regulating LGUs after the stock market crash of 1929. North Carolina takes pride in having one of the highest national bond ratings, which is influenced by the governance of the LGC.

The mean for DEBTOEQUITY was 0.14, demonstrating a low borrowing rate in proportion to the equity of the LGUs. This finding did not come as a surprise, as the LGC strictly guides the borrowing practices of North Carolina LGUs. LGUs demonstrated debt-to-equity ratios as low as 0 to 4.93. These findings show that some units did not possess any debt on their financial statements, while some used more to fund their operations. Regarding the other two financial ratios, POSITION and PERFORMANCE, a higher ratio signals a favorable report message and content, while a lower ratio signals no favorable report message and content. Findings from the sample show that LGUs in North Carolina report message and content is more favorable in regards to POSITION rather than PERFORMANCE. These findings are supported by the mean of 3.10 for POSITION and a lower mean of 0.23 for PERFORMANCE. The range in POSITION for LGUs is more extended than that of PERFORMANCE as POSITION ratios had a minimum of -0.69 and a maximum of 160.96, while the ratio for PERFORMANCE ranged from -1.19 to 83.42, providing a smaller spread than the POSITION ratio. LGUs included in this sample were issued anywhere from zero to eight findings by independent audit firms. These findings demonstrated that some LGUs complied with all regulations and requirements, while some had multiple instances of noncompliance. As it pertains to compliance, 99% of LGUs received an unqualified OPINION. Therefore, it is implied that almost all LGUs in North Carolina presented their financial statements in compliance with GAAP. In fact, only three units received an other-than-unqualified OPINION. It could be concluded that the management teams that were responsible for preparing annual financial statements for the unit had the competency to comply with accounting regulations. Although the collected data demonstrated LGU's in North Carolina complied

with GAAP, the responses predict success perfectly, and therefore, data was only analyzed for descriptive statistics as it related to OPINION.

The amount of outstanding long-term debt for LGUs ranged from units not possessing any debt to owing as much as \$972,000,000. The average for the sample was \$7,000,000. Therefore, some units did not have an incentive to satisfy external lenders with timely audit reports. In regards to impressing external lenders, LGUs receive federal and state-grants to assist in providing public services to taxpayers and citizens. As discussed in the prior chapters, LGUs are required to submit a Single Audit if they expended specific amounts. Forty-one percent of the sample was required to submit a Single Audit demonstrating an incentive to management to submit reports on time. Considering only 25% of the sample submitted audit reports on time, it is evident that LGUs were not motivated to be on time even if they were required to comply with the Single Audit.

Twenty-one percent of the sample presented three or more major funds on their financial statements. Therefore, independent audit firms had to test units within this variable group extensively. Audit firms had more LGUs with two or fewer major funds that required testing during the audit process. Future research should explore this variable as continuous rather than categorical to estimate the effect the total number of major funds presented on the financials has on audit report timeliness. As discussed in Chapter 1, North Carolina spreads over 53,000 miles. LGUs can contract with LGC-approved independent audit firms within or outside the state. Therefore, it could be assumed that there was a widespread distance in the number of miles between the LGU's Finance Department and the firm's headquarters. However, findings demonstrated that the LGUs

contracted with firms within 0.10 and 344 miles of their Finance Departments. Further research into the approach of LGUs when awarding a contract to a firm should be explored. Findings from this study present the assumption that units preferred to contract with local firms that are familiar as shown with a 0.10 distance in miles between offices. While the rather large distance between offices of 344 miles, signals the LGU selected a more popular or established firm to contract with, disregarding the distance required for travel. Across the sample, there were an average of 73.60 miles between the Finance Department and the independent audit firm. Auditors are assumed to have a greater level of knowledge and expertise as their client base grows. In the same notion, auditors should increase staffing levels as they audit more financial statements. Ninety-eight percent of audit firms engaging in FY2021 audits for local governments had two or more clients. Therefore, it is implied that LGUs have their annual financial statements audited by firms with a higher degree of expertise. However, while the high frequency demonstrated audit firm engagement flexibility, the collected responses predicted success perfectly; therefore, data were only analyzed for descriptive statistics as it relates to ENGAGEMENTS.

Table 1:

Descriptive Statistics for North Carolina Governments Submitting FY21 Audit Reports

Variables	Total (n=513)
<i>Dependent Variable: DELAY (days)</i>	
Mean (Standard Deviation)	182.06 (2.43)
Range	83 to 603
<i>Dependent Variable: LATE (frequency)</i>	
LATE	384 (74.90%)
ON-TIME	129 (25.10%)

Variables	Total (n=513)
<i>Report Message Content and Managerial Competency:</i>	
DEBTTOEQUITY	
Mean (Standard Deviation)	0.14 (0.31)
Range	0 to 4.93
POSITION	
Mean (Standard Deviation)	3.10 (7.43)
Range	-0.69 to 160.96
PERFORMANCE	
Mean (Standard Deviation)	0.23 (3.73)
Range	-1.19 to 83.42
FINDINGS	
Mean (Standard Deviation)	0.63 (1.23)
Range	0 to 8
OPINION (frequency)	
UNQUALIFIED	510 (99.40%)
OTHER-THAN-UNQUALIFIED	3 (60%)
<i>Accountability:</i>	
DEBT (millions)	
Mean (Standard Deviation)	\$7 (\$48.10)
Range	\$0 to \$972
SINGLEAUDIT (frequency)	
SINGLEAUDITNOTREQUIRED	304 (59.30%)
SINGLEAUDITREQUIRED	209 (40.70%)
<i>Audit Environment:</i>	
FUNDS (frequency)	
TWOORLESS	406 (79.10%)
THREEORMORE	107 (20.90%)
DISTANCE (miles)	
Mean (Standard Deviation)	73.60 (72.87)
Range	0.10 to 344
ENGAGEMENTS (frequency)	
ONECLIENT	10 (1.90%)
TWOORMORECLIENTS	503 (98.10%)
<i>Structure (frequency)</i>	
MUNICIPALITY	425 (82.80%)
COUNTY	88 (17.20%)

From the sample, three groups were formed to draw specific statistical insight, (a) On-time versus late filers, (b) Municipality versus county units of government, and (c) Populations less than 5,000 versus populations greater than 5,000. Statistical differences observed for each variable were addressed as it pertained to the (a) Report Message Content and Managerial Competency, (b) Accountability, and (c) Audit Environment variables per each group.

On-Time versus Late Filers

Table 2 contains descriptive statistics for audit reports filed on or before the North Carolina state-mandated grace period and those filed after the North Carolina state-mandated grace period. The table presents statistics for the 129 units that filed on time and the 384 that filed late. For each independent variable measured in this study, preliminary univariate analysis occurred. T-tests were utilized to decipher any differences in continuous variables, while chi-squared testing was conducted on differences in dichotomous variables. A combination of one-tailed and two-tailed directional testing transpired for those variables with or without directional predictions; these results are also presented in the table.

The mean delay for audits filed before the N.C. state-mandated grace period was 128.81 days. For those units that filed after the N.C. state-mandated grace period, the mean delay was 199.95 days. Table 2 presents the findings from the t-tests that demonstrated that only two independent variables differed significantly between the units that filed on time and those that filed late. Observable differences were witnessed in the report message and managerial competency and accountability group variables. From an overall variable's perspective, those units that filed on time versus those that filed late

differed the most in FINDINGS and SINGLEAUDIT. A significant difference was also observed for STRUCTURE. These significantly different variables and the others collected in the models are included in the conversation below.

Report Message Content and Managerial Competency. Appendix A provides a visual representation of a comparison of two means for this first group of variables. Regarding those that filed their audit reports before the North Carolina state-mandated deadline, the mean was .12, and those that filed after the deadline experienced a mean of .15. Within Appendix A, Table A demonstrated that no statistical differences were found regarding DEBTTOEQUITY. For those units that filed their audit reports on time, the mean for POSITION was 2.85, as opposed to a mean of 3.18 for those that filed their reports after the North Carolina state-mandated grace period. No statistical differences existed in this group regarding POSITION as presented within Appendix A, Table B. The mean PERFORMANCE for those units filing on time was .05 instead of .28 for those not filing on time. Again, no statistical differences were observed in this group as it pertained to PERFORMANCE, located within Appendix A, Table C.

However, for those units that submitted on time, their mean for FINDINGS was .35, while those not submitting on time had a mean of .71. There were significant differences in the FINDINGS variable experienced between the two groups as identified in the t-tests within Appendix A, Table D. From the sample, of those that submitted audit reports on time, 0% were issued an other-than-unqualified opinion. In contrast, those not submitting on time had 1% receive an other-than-unqualified opinion. No statistical differences were presented within Appendix A, Table E. The findings presented for

OPINION do not come as a surprise, as those that submitted audit reports on time all demonstrated compliance with GAAP.

Accountability. Appendix A provides insight into the two-mean comparison conducted on the variables belonging to the accountability group. Descriptive statistics conclude that those that filed their audit reports on time held a mean DEBT of \$2,677,062 in long-term debt on their books, while those not filing on time had a mean dollar amount of \$8,530,142. For the group in regards to DEBT, there were no statistical differences found as displayed within Appendix A, Table F. Regarding the second independent variable categorized in the accountability group, the North Carolina LGUs that filed on time, 17% were required to comply with the Single Audit Act, while 83% of those filing late were required. A significant difference between the two groups was observed in the findings of this research as presented within Appendix A, Table G.

Audit Environment. Represented in Appendix A is the comparison of means relevant to the audit environment group of variables. In regards to the independent variable, FUNDS, of those units that submitted on-time audit reports, 20% presented three or more major funds, as opposed to those that did not submit reports on time, with 80% having three or more major funds. No statistical difference was observed for this group as it relates to FUNDS. This testing is demonstrated within Appendix A, Table H. The mean for the total number of miles between the auditor's headquarters and the client's Finance department (DISTANCE) was 83.57 miles for those units that submitted audit reports on time, while those not filling on time had a mean of 70.25 miles. No statistical differences were demonstrated in this group regarding DISTANCE in accordance with the testing displayed in Appendix A, Table I. Drilling into the auditor's

engagements for completing N.C. local government audits, no statistical difference was found, as 99% of those LGUs that filed on time had their audit reports completed by firms engaged in two or more local government audits. This testing is presented within Appendix A, Table J. Of those that filed their audit reports after the state-mandated deadline, 97% had their financial statements audited by a firm engaged in two or more local government audits.

Structure. In addition to the independent variables discussed above, STRUCTURE, the dummy variable in this research, demonstrated significant differences in descriptive statistics when interpreting on-time filers versus late filers (Appendix A, Table K). For the purpose of this research, 17% of the total sample was composed of counties. While the sample appears to be unbalanced between counties and municipalities, the audit structure for both forms of government is the same. Counties and municipalities must follow the same process and abide by state-mandated deadlines. Therefore, allowing data to be analyzed consistently across the sample and additional comparability between the two. For those that filed timely annual audit reports, counties represented 8%. Of the group that filed late annual audit reports, 20% was represented by counties.

Table 2:*Descriptive Statistics for North Carolina Governments Submitting FY21 Audit Reports and a Comparison of Late and Timely Audits*

Variables	Total (n=513)	Late Audits (n=384)	Timely Audits (n=129)
<i>Dependent Variable:</i>			
<i>DELAY</i>			
Mean (Standard Deviation)	182.06 (2.43)**	199.95 (51.72)	128.81(17.31)
Range	83 to 603	154 to 603	83 to 153
<i>Report Message Content and Managerial Competency:</i>			
<i>DEBTTOEQUITY</i>			
Mean (Standard Deviation)	0.14 (0.31)	.15 (0.34)	0.12 (0.19)
Range	0 - 4.93	0 -4.93	0 - 1.53
<i>POSITION</i>			
Mean (Standard Deviation)	3.10 (7.43)	3.18 (8.48)	2.85 (2.34)
Range	-0.69 - 160.96	-0.69 - 160.96	-0.33 - 16.4
<i>PERFORMANCE</i>			
Mean (Standard Deviation)	0.23 (3.73)	0.28 (4.31)	0.05 (0.17)
Range	-1.19 - 83.42	-7.25 - 83.42	-1.19 - 0.74
<i>FINDINGS</i>			
Mean (Standard Deviation)	0.62 (1.23)**	0.71 (1.30)	0.35 (0.97)
Range	0 - 8	0 - 8	0 - 5
OPINION (frequency)	1%	1%	0%
<i>Accountability:</i>			
<i>DEBT (millions)</i>			
Mean (Standard Deviation)	\$7 (\$4.81)	\$8.5 (\$5.51)	\$2.6 (\$1.15)
Range	\$0 - \$972	\$0 - \$972	\$0 - \$14.4
SINGLEAUDIT (frequency)	41%**	83%	17%
<i>Audit Environment:</i>			
FUNDS (frequency)	21%	80%	20%

Variables	Total (n=513)	Late Audits (n=384)	Timely Audits (n=129)
DISTANCE			
Mean (Standard Deviation)	73.60 (72.87)	70.25 (66.82)	83.57 (88)
Range	0.1 - 344	0.1 - 344	0.2 - 280
EXPERTISE (frequency)	98%	97%	99%
STRUCTURE (frequency)	17%**	20%	8%

Municipality versus County Filers

This section provides a deeper analysis of the sample studied in this research. As it relates to statistical differences between the two local government groups, data collected from the 425 municipalities and 88 counties' annual audited financial reports for the fiscal year 2021 are discussed below. For transparency, Table 3 provides a visual for the statistics of all LGUs represented in the sample for this research. Similar to the descriptive statistics of on time versus late filers, univariate analysis was conducted for each independent variable to understand any significant differences between the two groups; for any observed differences between the groups, t-tests and chi-squared testing were used for continuous and categorical variables.

Municipalities included in the sample had a mean DELAY of 179.85 days, while counties experienced a mean of 192.76 days. As discussed earlier in this research, how the variable DELAY was measured has changed several times throughout the literature. A significant contribution of this research to the literature was enhancing the transparency of the term audit report delay to be more aligned with end users' access to the information. Of the sample, 72.62% of municipalities submitted late reports, and 88.64 % of counties did. The t-tests and chi-squared tests of independent variables

demonstrated significant differences between counties and municipalities. Statistical differences were identified as belonging to the report message and managerial competency, accountability, and audit environment group of variables. Specifically, statistical differences were significant for DEBTTOEQUITY, POSITION, PERFORMANCE, FINDINGS, DEBT, SINGLEAUDIT, FUNDS, and DISTANCE. Below is a discussion of each independent variable studied and its implications between counties and municipalities.

Report Message Content and Managerial Competency. Appendix B provides a visual conception of any statistical differences presented in this study's sample groups as it related to municipalities versus counties. Regarding the amount of debt-to-equity local government possesses, significant differences were indicated for DEBTOEQUITY, as the means were .13 and .23 for municipalities and counties, respectively (Appendix B, Table A). The mean for financial statement position (POSITION) was 3.63 for municipalities and .54 for counties, which demonstrated statistical differences (Appendix B, Table B). While the final key financial ratio, PERFORMANCE, had a mean of .06 for municipalities, counties demonstrated a mean ratio of 1.04; there were also significant differences experienced (Appendix B, Table C).

Regarding the total number of audit findings issued (FINDINGS) the mean was .45 for municipalities and 1.45 for counties. A significant difference was identified for FINDINGS in this group (Appendix B, Table D). No statistical differences were found regarding financial statements being prepared and presented in conformity with the GAAP; auditors issued an OPINION of other-than-unqualified to 1% of municipalities

and counties (Appendix B, Table E.). Ultimately, 99% of North Carolina's LGUs received unqualified independent auditor opinions.

Accountability. A review of the Annual Financial Information Report on the North Carolina Department of State Treasurer website provided the data needed to gain descriptive statistical information on the accountability of North Carolina LGUs. The results as they applied to the two groups (municipalities and counties) are presented in Appendix B. Long-term debt dollar amounts (DEBT) had a mean of \$4,538,337 for municipalities and \$19,228,665 for counties. T-tests indicated significant differences in DEBT between municipality and county groupings (Appendix B, Table F). Descriptive statistics demonstrate that 30% of the sampled municipalities were required to comply with the Single Audit Act (SINGLEAUDIT), whereas 91% of counties were required. As briefly mentioned earlier, the univariate analysis demonstrated a significant difference amongst the group in relation to the SINGLEAUDIT variable (Appendix B, Table G).

Audit Environment. A closer dive into the annual audit's environment provided the following descriptive statistics, which are included in Table 3. From the sample, 12% of municipalities had three or more major funds (FUNDS), while 62% of the counties belonged to the same group. There were statistical differences demonstrated in this group in regards to FUNDS (Appendix B, Table H). The collected data descriptive demonstrated a mean of 65.46 miles between the independent audit firms' headquarters and the LGUs' Finance Department for those municipalities sampled and 112.87 miles for sampled counties. Significant differences were evident between the two groups regarding DISTANCE (Appendix B, Table I). The mean for the number of North Carolina local government audit reports an independent audit firm performed

(ENGAGEMENTS) was 6.34 for municipalities and 4.04 for counties included in the sample. For municipalities, their independent auditors engaged in financial statement audits at a frequency of 98% having two or more LGU clients. Counties experienced 96% of their independent audit firms engaged in two more LGU audits. No statistical differences were evident regarding ENGAGEMENTS (Appendix B, Table J).

Table 3:

Descriptive Statistics for North Carolina Governments Submitting FY21 Audit Reports and a Comparison of Municipalities and County Audits

Variables	Total (n=513)	Municipality Audits (n=425)	County Audits (n=88)
<i>Dependent Variable: DELAY</i>			
Mean (Standard Deviation)	182.06 (2.43)	179.85 (57.71)	192.76 (38.22)
Range	83 to 603	83 to 603	117 to 336
<i>Report Message Content and Managerial Competency:</i>			
DEBTTOEQUITY			
Mean (Standard Deviation)	0.14 (0.31)**	0.13 (0.33)	0.23 (0.17)
Range	0 to 4.93	0 to 4.93	0 to 0.77
POSITION			
Mean (Standard Deviation)	3.10 (7.43)**	3.63 (8.06)	0.54 (0.77)
Range	-0.69 to 160.96	-0.61 to 160.96	-0.69 to 3.30
PERFORMANCE			
Mean (Standard Deviation)	0.23 (3.73)**	0.06 (0.11)	1.04 (8.99)
Range	-1.19 to 83.42	-0.58 to 1.07	-7.25 to 83.42
FINDINGS			
Mean (Standard Deviation)	0.62 (1.23)**	0.45 (0.97)	1.45 (1.89)
Range	0 to 8	0 to 7	0 to 8
OPINION (frequency)	1%	1%	1%
<i>Accountability:</i>			

Variables	Total (n=513)	Municipality Audits (n=425)	County Audits (n=88)
DEBT (millions)			
Mean (Standard Deviation)	\$7 (\$4.81)**	\$4.5 (\$4.83)	\$19.22 (\$4.54)
Range	\$0 to \$972	\$0 to \$972	\$0 to \$3.50
SINGLEAUDIT (frequency)	41%**	30%	91%
<i>Audit Environment:</i>			
FUNDS (frequency)	21%**	12 %	62%
DISTANCE			
Mean (Standard Deviation)	73.60 (72.87)**	65.46 (66.07)	112.87 (82.36)
Range	0.1 to 344	0.1 to 344	0.3 to 342
EXPERTISE (frequency)	98%	98%	96%

***Statistical differences demonstrated between the two groups ($p < .05$)*

Populations Greater Than 5,000 versus Populations Smaller Than 5,000

The next section of this chapter focuses on the descriptive statistics of those in the sample with a population of citizens greater than 5,000 and those smaller. Cagle (2012) previously examined audit report delay as it related to the variable groups (a) Report Message Content and Managerial Competency, (b) Accountability, and (c) Audit Environment. The study's findings provided a foundation for understanding the characteristics of smaller governments as it related to audit report delay. However, the research could not draw statistical conclusions for larger populations due to population size, prompting their call for future research to analyze these variables in larger settings, thus, completed and discussed below as it relates to the statistical characteristics and differences between the two population size groups in this study. Such findings are represented in Table 4. Findings from this study demonstrated statistical significance in units of governments with a population smaller than 5,000 and a population greater than

5,000 in the report message content and managerial competency variables DEBTTTOEQUITY, POSITION, and FINDING. Both accountability variables presented statistical differences (DEBT and SINGLEAUDIT). For the audit environment variables, FUNDS and DISTANCE demonstrated statistical differences between the groups. For those LGUs with a population smaller than 5,000, 74% submitted late audit reports, while those units with populations greater than 5,000 experienced 75% of audit reports submission being late.

Report Message Content and Managerial Competency. Represented in Appendix C are the statistical findings as they related to the different population size groups for variables applicable to the report message content and managerial competency group. Regarding the amount of debt to equity a local government possessed (DEBTTTOEQUITY), the means were .08 and .24 for populations smaller than 5,000 and those greater than 5,000, respectively. A statistical difference was found for DEBTTTOEQUITY (Appendix C, Table A). The mean for financial statement position (POSITION) was 3.93 for LGUs with a population under 5,000 and 1.89 for units with populations greater than 5,000, which demonstrated statistical difference (Appendix C, Table B). The final key financial ratio, PERFORMANCE, had a mean of .33 for units with a population less than 5,000, and those units with larger populations presented a mean of .07. No statistical differences were observed for PERFORMANCE (Appendix C, Table C).

Regarding the total number of audit findings issued (FINDINGS), those North Carolina LGUs with a population smaller than 5,000, the mean number of findings was .52. For those LGUs that have more than 5,000 citizens, the mean total number of

findings are .35. A significant difference was identified for FINDINGS (Appendix C, Table D). Regarding financial statements being prepared and presented in conformity with the GAAP, auditors issued an OPINION of other-than-unqualified to 1% of both groups, therefore, no statistical differences were observed (Appendix C, Table E).

Accountability. Appendix C provides a visual representation of the t-test conducted on the accountability variables at it relates to the group with populations greater than, and less than 5,000. Long-term debt dollar amounts (DEBT) had a mean of \$2,546,104 for LGUs with populations smaller than 5,000. A mean DEBT of \$1,360,000,000 was presented for those LGUs with a population greater than 5,000. T-tests indicated significant differences in DEBT between these two groups (Appendix C, Table F). Descriptive statistics demonstrated that 18% of the sampled local governments with less than 5,000 populations were required to comply with the Single Audit Act (SINGLEAUDIT), whereas 73% of the sampled local governments with populations greater than 5,000 were required. As with DEBT, statistical significance is also indicated between the two groups regarding the SINGLEAUDIT variable (Appendix C, Table G).

Audit Environment. As it related to the audit environment, FUNDS, DISTANCE, and ENGAGEMENTS, statistical implications are discussed for the two groups, and visualized in Appendix C. From the sample, 7% of those with a population under 5,000 had three or more major funds (FUNDS), while 39% of the LGUs with a population greater than 5,000 had three or more major funds. Results indicated a statistical difference in the variable FUNDS between the two observed groups (Appendix C, Table H). The collected data's descriptions demonstrated a mean of 56.54 miles between the independent audit firms' headquarters and the LGUs' Finance Departments

(DISTANCE) for those LGUs with a population of 5,000 or less sampled and 98.41 miles for sampled units with populations greater than 5,000. Again, a statistical difference was recognized in this group of variables through the population size grouping (Appendix C, Table I). In regards to the number of engagements (ENGAGEMENTS) that an independent accounting firm had completed for LGUs, those units with a population smaller than 5,000, their independent auditors engaged in financial statement audits at a frequency of 99% having two or more LGU clients. LGUs with a population greater than 5,000 experienced 96% of their independent audit firms engaged in two or more LGU audits. No statistical differences were demonstrated in this group regarding ENGAGEMENTS (Appendix C, Table J).

Table 4:

Descriptive Statistics for North Carolina Governments Submitting FY21 Audit Reports and a Comparison of Populations <5,000 and >5,000 Audits

Variables	Total (n=513)	<5,000 Audits (n=304)	>5,000 Audits (n=209)
<i>Dependent Variable: DELAY</i>			
Mean (Standard Deviation)	182.06 (2.43)	182.60 (59.50)	181.29(48.01)
Range	83 to 603	83 to 537	92 to 603
<i>Report Message Content and Managerial Competency:</i>			
DEBTTOEQUITY			
Mean (Standard Deviation)	0.14 (0.31)**	0.08 (0.20)	0.24 (0.40)
Range	0 to 4.93	0 to 2.88	0 to 4.93
POSITION			
Mean (Standard Deviation)	3.10 (7.43)**	3.93 (9.40)	1.89 (2.17)
Range	-0.69 to 160.96	0 to 160.96	-0.69 to 11.08
PERFORMANCE			
Mean (Standard Deviation)	0.23 (3.73)	0.33 (4.78)	0.07 (0.91)

Variables	Total (n=513)	<5,000 Audits (n=304)	>5,000 Audits (n=209)
Range	-1.19 to 83.42	-0.58 to 83.42	-7.25 to 7.08
FINDINGS			
Mean (Standard Deviation)	0.62 (1.23)**	0.52 (1.10)	0.35 (1.42)
Range	0 to 8	0 to 7	0 to 8
OPINION (frequency)	1%	1%	0%
<i>Accountability:</i>			
DEBT (millions)			
Mean (Standard Deviation)	\$7 (\$4.81)**	\$2.5 (\$1.23)	\$1,36.0 (\$7.34)
Range	\$0 to \$972	\$0 to \$4.94	\$0 to \$972
SINGLEAUDIT (frequency)	41%**	18%	73%
<i>Audit Environment:</i>			
FUNDS (frequency)	21%**	7%	39%
DISTANCE			
Mean (Standard Deviation)	73.60 (72.87)**	56.54 (60.40)	98.41 (81.93)
Range	0.1 to 344	0.1 to 344	0.2 to 343
EXPERTISE (frequency)	98%	99%	96%

***Statistical differences demonstrated between the two groups ($p < .05$)*

Bivariate Correlation Coefficients

The bivariate correlation coefficients table presents the directional relationship between the independent and dependent variables. Variables with significance greater than the 5% significance level demonstrate no change regarding changes in any included variables. When the significance level is less than 5% significance level then as one variable begins to experience change the significantly correlated variable will change in the demonstrated direction (positive or negative) as implied in Table 5.

Regarding the report message content and managerial competency variables, DEBTTTOEQUITY was only significantly correlated with DELAY (0.02), which

demonstrated a positive relationship. POSITION was significantly correlated with DELAY and LATE (0.04 and .02, respectively). In addition, a positive relationship was demonstrated, as a change in either dependent variable will result in a linear change for POSITION. PERFORMANCE demonstrated a significant correlation between DELAY, LATE, DEBTTOEQUITY, and POSITION. However, PERFORMANCE only demonstrated a positive directional change regarding DELAY, LATE, and DEBTTOEQUITY, POSITION, presented a negative correlation; therefore, as POSITION increases, PERFORMANCE will decrease. FINDINGS only demonstrated a significant correlation with PERFORMANCE, which was negative; therefore, as PERFORMANCE experiences change, FINDINGS will be influenced in the opposite direction. The final report message content and managerial competency variable, OPINION, was significantly correlated with DELAY, LATE, DEBTTOEQUITY, POSITION, PERFORMANCE, and FINDINGS. A positive correlation was only demonstrated for LATE and POSITION in regard to OPINION. Therefore, as either variable experiences change, the other variable will respond in the same direction. The opposite behavior is experienced for DELAY, DEBTTOEQUITY, PERFORMANCE, and FINDINGS regarding OPINION, as a change in any of those variables, will result in OPINION responding in the opposite direction.

The second group of variables belonged to the accountability group. DEBT demonstrated a significant correlation with DELAY, LATE, PERFORMANCE, and OPINION. PERFORMANCE and OPINION demonstrated a negative correlation with DEBT; therefore, as PERFORMANCE or OPINION experiences changes, DEBT will respond in the opposite direction. DELAY and LATE demonstrated positive correlations

with DEBT, so these variables change in the same direction. The final variable in this group, SINGLEAUDIT, was only significantly correlated with POSITION, which demonstrated a negative correlation. Therefore, any changes in POSITION will be witnessed in the opposite direction for SINGLEAUDIT.

The final group of variables belonged to the audit environment theme. The first variable, FUNDS, demonstrated a significant correlation with DELAY, PERFORMANCE, and OPINION. While Table 5 demonstrates that a change in DELAY will be responded to in the same direction by FUNDS, PERFORMANCE, and OPINION, demonstrating a negative correlation, so any change in these variables will be reflected in the opposite direction for FUNDS. The next variable, DISTANCE, experienced a significant correlation with DELAY, PERFORMANCE, FINDINGS, and OPINION. A change in PERFORMANCE and FINDINGS will be mimicked in the same direction by DISTANCE due to the positive correlation of the variables. However, a change in DELAY and OPINION will have the opposite implication on DISTANCE, as demonstrated by the negative correlation among these groups of variables. The final variable of this group, ENGAGEMENTS, demonstrated a significant correlation with DEBTTOEQUITY, POSITION, PERFORMANCE, FINDINGS, OPINION, SINGLEAUDIT, FUNDS, and DISTANCE. Any change demonstrated in DEBTTOEQUITY, POSITION, PERFORMANCE, OPINION, DEBT, and SINGLEAUDIT, will be reflected in the same direction for ENGAGEMENTS, as the positive correlation presents. However, for FINDINGS, FUNDS, and DISTANCE, any changes will be reflected in the opposite direction for ENGAGEMENTS, as demonstrated by the negative correlation.

Table 5:*Bivariate Correlation Coefficients among Variables of the FY21 Audit Report*

n=513

Variables	DELAY	LATE	DEBT- TOEQUITY	POSI- TION	PERFOR- MANCE	FIND- INGS	OPIN- ION	DEBT	SINGLE- AUDIT	FUNDS	DISTANCE	ENGAGE- MENTS
DELAY	1											
LATE	-.56	1										
DEBTTOEQUITY	.02*	.05	1									
POSITION	.04*	.02*	.33	1								
PERFORMANCE	.01*	.03*	.04*	-.02*	1							
FINDINGS	.24	.12	.07	-.08	-.03*	1						
OPINION	-.01*	.04*	-.01*	.01*	-.00*	-.02*	1					
DEBT	.01*	.04*	.73	-.07	-.01*	.09	-.01	1				
SINGLEAUDIT	.11	.16	.31	-.04*	.06	.21	-.06	.16	1			
FUNDS	.02*	.07	.20	-.08	-.02*	.09	-.04*	.20	.37	1		
DISTANCE	-.00*	.05	.13	-.05	.03*	.02*	-.04*	.06	.11	.10	1	
ENGAGEMENTS	-.30	-.08	.02*	.01*	.00*	-.04*	.01*	.02*	.00*	-.03*	-.00*	1

* $p < .05$

Results

Ordinary Least Squares

The first model, ordinary least squares (OLS), was run to estimate the effects of predictor factors on the DELAY dependent variable that represented the number of days from the June 30 fiscal year-end until the date the LGU's audit report was reviewed and stamped by the North Carolina LGC. For the OLS DELAY model, the variance inflation test was performed to confirm there were no issues with multicollinearity. As confirmed in Appendix D, Table A, all values tested were under 5.; therefore, no multicollinearity issues among the independent variables existed. The collected data did not demonstrate enough difference in responses to the opinion and engagement variables, modeling an issue of collinearity. Therefore, the OLS DELAY model did not include OPINION and ENGAGEMENTS when estimating the effects of predictor factors on DELAY. The results of the first regression model are presented in Table 6. The adjusted R squared (5.28%) and F-Statistic (4.57, $p < 0.0000$) differed slightly from prior literature findings for audit delay in Cagle (2012): 26%, Johnson (1998) and Johnson et al. (2002): 21%, and McLelland & Giroux (2000): 31%. The research findings per the adjusted R squared favored more closely with the findings of Dwyer & Wilson (1989): 12%, and Payne & Jensen (2002): 13%.

TABLE 6

Ordinary Least-Squares Delay Regression Model

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Err.</i>	<i>t</i>	<i>P>t</i>	<i>95% Conf Int</i>	
DEBTTOEQUITY	-8.43	13.64	-0.62	0.54	-35.23	18.37
POSITION	0.61	0.38	1.62	0.11	-0.13	1.35
PERFORMANCE	0.13	0.64	0.20	0.84	-1.12	1.38

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Err.</i>	<i>t</i>	<i>P>t</i>	<i>95% Conf Int</i>	
FINDINGS	10.40	1.97	5.27	0.00**	6.52	14.27
DEBT	0.00	0.00	0.22	0.83	0.00	0.00
SINGLEAUDIT	9.48	5.59	1.70	0.09*	-1.50	20.46
FUNDS	-2.08	6.37	-0.33	0.74	-14.59	10.43
DISTANCE	-0.01	0.03	-0.43	0.67	-0.08	0.05
constant	172.35	4.00	43.05	0.00	164.48	180.21

Note. Observations=513, F= 4.57, Prob> F=0.000, R-squared= 0.0676,
 Adj. R-squared= 0.0528, Root MSE= 53.576
 **significance (p<.05), *significance (p<.10)

These findings did not come as a surprise due to the characteristics of the independent variables measured in this study. The adjusted R-squared provided insight regarding the improvement of the model based on an increase in predictor factors. A higher adjusted R-squared in prior studies is contributed to the structure of the independent variables. For instance, prior literature estimated the effects of FUNDS on DELAY with the independent variable funds measured as the total number of funds (Cagle, 2012; Johnson, 1998; Johnson et al., 2012). Other studies estimated the effects of FUNDS on DELAY, with the independent variable funds measured as LGUs with three or more major funds presented on their financial statements (Payne & Jensen, 2002). It was concluded that measuring FUNDS as a continuous variable, as opposed to categorical, added additional value to the model. Essentially, measuring FUNDS as the total number of major funds, as opposed to statements with three or more major funds, presented greater value to the OLS model for DELAY.

When the robust method was employed for the OLS model, an increase in statistically significant predictors of LGU audit report delay was demonstrated (Table 7). In addition to the independent variable FINDINGS that demonstrated significance in the

original model, POSITION demonstrated significance at a value of $p < .05$ ($p = .00$).

SINGLEAUDIT also demonstrated statistical significance at the $p < .10$ value ($p = .09$).

Table 7

Ordinary Least Squares Robust Delay Regression Model

<i>Variable</i>	<i>Coefficient</i>	<i>Robust S. E.</i>	<i>t</i>	<i>P>t</i>	<i>95% Conf Int</i>	
DEBTTTOEQUITY	-8.43	11.35	-0.74	0.46	-30.73	13.86
POSITION	0.61	0.21	2.95	0.00**	0.20	1.02
PERFORMANCE	0.13	0.12	1.09	0.28	-0.10	0.36
FINDINGS	10.40	2.89	3.59	0.00**	4.71	16.08
DEBT	0.00	0.00	0.32	0.75	-0.01	0.00
SINGLEAUDIT	9.48	5.43	1.74	0.08*	-1.19	20.15
FUNDS	-2.08	5.00	-0.42	0.68	-11.90	7.74
DISTANCE	-0.01	0.03	-0.51	0.61	-0.07	0.04
constant	172.35	4.02	42.93	0.00	164.46	180.24

Note. Observations=513, F= 6.61, Prob> F=0.000, R-squared= 0.0676, RMSE=53.576
 **significance ($p < .05$), *significance ($p < .10$)

A contribution of this research was the extension of the independent variable DEBTTTOEQUITY. As visualized in Table 6, the inclusion of this variable produced an adjusted R-Squared of 5.28%. When removing this variable from the OLS model, an adjusted R-Squared of 5.39% was demonstrated in Table 8. Therefore, there was a greater variation in the dependent variable by including the DEBTTTOEQUITY ratio as opposed to excluding it.

Table 8*Ordinary Least Squares DEBTTOEQUITY Contribution Regression Model*

<i>Variable</i>	<i>Coefficient</i>	<i>Robust S. E.</i>	<i>t</i>	<i>P>t</i>	<i>95% Conf Int</i>	
POSITION	0.49	0.32	1.52	0.13	-0.14	1.12
PERFORMANCE	0.11	0.64	0.17	0.86	-1.14	1.36
FINDINGS	10.42	1.97	5.28	0.00**	6.55	14.29
DEBT	-0.01	0.00	-0.40	0.69	-0.01	0.00
SINGLEAUDIT	8.41	5.31	1.58	0.11	-2.03	18.84
FUNDS	-2.18	6.36	-0.34	0.73	-14.68	10.33
DISTANCE	-0.01	0.03	-0.45	65.00	-0.08	0.05
constant	172.24	4.00	43.09	0.00	164.39	180.10

Note. Observations=513, F= 5.17, Prob> F=0.000,

R-squared= 0.0669, Adj. R-squared= 0.0539, Root MSE= 53.544

**significance (p<.05), *significance (p<.10)

Logistic Regression

The second model was run to measure the LATE dependent variable. The logistic regression model utilized estimated the effects of the variables analyzed in the OLS model's influence on LGUs submitting their annual audit reports after the North Carolina state-mandated grace period. As it related to the dependent variable LATE, those LGUs that submitted their audit reports after the state-mandated grace period are coded "1", and those that submitted it before are coded "0". As discussed for the OLS model, the data collected for OPINION and ENGAGEMENTS predicted success perfectly, therefore, regression testing was not conducted.

To ensure the quality of the logistic regression LATE model, assumptions of regression were tested. The first assumption this study tested was that the dependent variable was categorical. As presented in Appendix D, Table B, the dependent variable

LATE only had two groups represented by binary variables, LATE and ON-TIME.

Therefore, assumption one was fulfilled. The second assumption for the regression model is that all observations were independent. As presented in Appendix D, Table C there were no repeat observations as each municipality and county were only presented once. Therefore, this assumption was met. The final assumption was that the independent variables were not highly correlated. To test the continuous independent variables, a correlation test was run in Stata with results visualized in Appendix D, Table D. There were no issues with multicollinearity as all values were equal to or less than 0.7. To test the categorical independent variables, the Spearman test was performed, which indicated no issues with multicollinearity (Appendix D, Table E). Therefore, this assumption was met as well.

The results of this logistic regression model are presented in Table 9. According to the results, the overall model was significant, as supported by the coefficients ($\chi^2=22.70, p<0.005$). The remainder of this chapter discusses the previously presented hypotheses related to the OLS and logistic regression model findings.

Table 9

Logistic Regression Late Model

<i>Variable</i>	<i>Odds Ratio</i>	<i>Std. Err.</i>	<i>z</i>	<i>P>z</i>	<i>95% Conf Int</i>	
DEBTTOEQUITY	0.74	0.49	-0.45	0.65	0.20	2.71
POSITION	1.05	0.05	1.03	0.30	0.96	1.15
PERFORMANCE	1.03	0.07	0.40	0.69	0.90	1.18
FINDINGS	1.31	0.15	2.33	0.02**	1.04	1.64
DEBT	1.00	0.00	0.43	0.67	1.00	1.00
SINGLEAUDIT	2.08	0.54	2.82	0.00**	1.25	3.46

<i>Variable</i>	<i>Odds Ratio</i>	<i>Std. Err.</i>	<i>z</i>	<i>P>z</i>	<i>95% Conf Int</i>	
FUNDS	1.06	0.32	0.20	0.84	0.59	1.90
DISTANCE	1.00	0.00	0.81	0.42	1.00	1.00
constant	1.62	0.39	2.00	0.05	1.01	2.59

Note: Observations=513, LR chi2=22.70, Prob> Chi=0.0038, Psuedo R2=.0392

OPINION and ENGAGEMENTS were omitted due to collinearity.

**significance (p<.05), *significance (p<.10)

Hypotheses Results

Report Message Content and Managerial Competency

Financial Statement Ratios. H1A predicted that if a local government unit had a favorable report message, there would be a negative association with audit report delay, depicting a negative association. A favorable report message for the purpose of this study was measured through key financial statements ratios such as DEBTTOEQUITY, PERFORMANCE, and POSITION. In the literature, as it relates to audit report delays, Haryani (2014) found that audit reports delayed for an extended period were associated with companies experiencing high debt-to-asset ratios. Contradicting findings by Annisa & Hamzah (2021) prompted further motivation to research debt-to-equity and its relation to audit report delays. One of the first to consider POSITION and PERFORMANCE, Cagle (2012) found statistical significance in POSITION but not in PERFORMANCE.

DBETTOEQUITY was measured as the amount of long-term debt of the LGU divided by the general fund balance, representing equity in a local government setting. PERFORMANCE was measured as the Change in Net Position/Total Net Position, representing how the current year's operations influence the cumulative net position. POSITION was measured as the Total Net Position/Total Revenue, as this identified how much excessive revenue versus expenditures the unit operated by. A higher POSITION

and (or) PERFORMANCE ratio were required for the report message content to be favorable. In contrast, a lower DEBTTOEQUITY ratio is needed, while the opposite applies to non-favorable report message content.

Regarding the DELAY regression model, the first variable, DEBTTOEQUITY, the coefficient was indeed negative as hypothesized. However, there was no statistical significance on audit report delay ($p=0.54$). The coefficients for POSITION and PERFORMANCE were not in the predicted position and neither demonstrated statistical significance ($p=0.11$ and 0.84). According to this model, hypothesis 1a was not supported.

H1B predicted that if an LGU had a favorable report message, the unit would be associated with audit reports failing to meet the North Carolina state-mandated deadline. In running the LATE regression model, it was discovered that none of the financial ratios had a statistical significance on LGUs failing to meet the North Carolina state-mandated deadline (DEBTTOEQUITY: $p=.65$, POSITION: $p=.30$, PERFORMANCE; $p=.69$). Therefore, hypothesis 1b was not supported as well.

Audit Findings. H2A addressed the total number of audit findings that an independent CPA firm issued in the LGUs' audit report. It was predicted that the total number of reported audit findings would be positively associated with an audit report delay. Results of prior studies contradict each other in regards to whether there was a statistically significant relationship between audit report delays and audit findings (Wijayanti & Suryandari, 2020; Hartati, 2021).

The results of the regression model run to interpret DELAY indicated a positive statistical significance between DELAY and FINDINGS ($p=.00$). Results stated that for

every finding issued to an LGU, an additional ten days were needed to submit to the audit report.

H2B predicted that the total number of reported audit findings would be associated with audit reports failing to meet North Carolina-mandated deadlines. The regression model run to measure LATE also demonstrated a statistical significance with FINDINGS ($p=0.02$). According to the results of both models, hypotheses 2a and 2b are supported.

Audit Opinion. H3A as it related to the report message content and managerial competency concerns OPINION, measured as the type of opinion the CPA firm issued. OPINION groups were coded “1” if they received an other-than-unqualified opinion and “0” if they received an unqualified opinion. Prior studies by Putra & Wilopo (2018) and Bahri & Amnia (2020) observed companies on the ISE to discover no statistical significance between audit report delays and the opinion issued by the audit firm. The findings of their work were also supported by local government observations by Cagle (2012). H3A predicted that an other-than-unqualified audit opinion would be positively associated with audit report delays. Likewise, H3B stated that receiving an other-than-unqualified auditor opinion would be associated with LGU’s audit reports failing to meet North Carolina-mandated filing deadlines. However, because less than 1% of the sample received an other-than-unqualified opinion, DELAY and LATE could not be measured. Therefore, due to collinearity in the OLS and logistic regression models, hypotheses 3a and 3b could not be tested.

Accountability

Long-Term Debt. H4A under the accountability group was concerned with outstanding long-term debt. It was hypothesized that a larger amount of outstanding debt would be negatively associated with an audit report delay. H4B predicted that a larger amount of outstanding debt would be associated with audit reports failing to meet North Carolina-mandated filing deadlines. This notion came from the concept that LGUs should have an urgency to share with investors that their financial statements are sound. In more recent studies, DEBT was analyzed and found to be statistically significant in relation to the audit delay time (Cohen & Leventis, 2013; Cagle et al., 2014).

The findings from this study demonstrated that DEBT was not statistically significant as it related to the DELAY and LATE models ($p=0.83$, $p=0.67$). Therefore, these findings contradicted those of earlier studies related to audit report delay. Hypotheses 4a and 4b were not supported.

Single Audit. The last variable assigned to the accountability group related to the requirement of compliance with the Single Audit Act. H5A predicted that governmental units that were required to file a Single Audit would be positively associated with audit report delay. This notion came from the concept that management should be motivated to complete audit reports on time that pertain to external users' funds and federal and state agency compliance. Prior literature by Cagle et al. (2014) demonstrated a positive correlation between users required to comply with the Single Audit Act and audit report delay.

For this research study, if the LGU was required to undergo a Single Audit, they were assigned a value of "1", and if they were exempt, a value of "0". Findings from the

data collected demonstrated a positive correlation between the DELAY and SINGLEAUDIT variables as aligned with the prior literature discussed above. However, no statistical significance was observed ($p=.09$); therefore, hypothesis 5a was not supported.

In addition, in this research H5B predicted that governmental units required to file a Single Audit would be associated with audit reports failing to meet North Carolina-mandated filing deadlines. Prior literature by Payne & Jensen (2002), Cagle et al. (2014), and Elder et al. (2015) found that those units required to submit a Single Audit were associated with late audit reports. The statistics of this study implied that H5b was supported as there was a statistical significance ($p=.00$). These findings were aligned with the prior literature discussed.

Audit Environment

Major Funds. H6A under the audit environment group pertained to the number of major funds reported on the LGU's financial statements. H6A predicted that LGUs with three or more reported major funds would be positively associated with an audit delay. This hypothesis aligned with the findings of Cagle (2012), as it was one of the first studies to measure the total number of major funds' influence on audit report delay post-GASB Statement No. 34.

As in Payne & Jensen (2002) and Cagle (2012), those LGUs with three or more major funds were coded "1", and those with less than three were coded "0". The findings from this study demonstrated a negative relationship between FUNDS and DELAY. There was no statistical significance observed ($p=.74$). According to the model of this

study, as the number of major funds increased, the audit delay decreased. Therefore, hypothesis 6a is not supported.

H6B predicted that LGUs with three or more reported major funds would be associated with audit reports failing to meet North Carolina-mandated filing deadlines. The notion here was that major funds take additional time to test, therefore, running the risk of failing to meet deadlines. Findings from this study did not support this hypothesis as there were no statistical significance ($p=0.84$). Hypothesis 6b is not supported as well.

Travel Distance. Continuing with the audit environment variables, DISTANCE was measured as the total number of miles between the CPA firm headquarters and the unit's Finance Department. H7A predicted that the total number of miles between the auditor's headquarters and the audit client's administrative location would be positively associated with the amount of audit delay. This notion was instilled by the concept that it takes longer for auditors to travel to locations and pull data, increasing the number of days it takes to complete the fieldwork. DISTANCE is still a relatively new variable for observation as it relates to audit report delays in local governments. The first to explore this variable in a similar setting was Cagle et al. (2014), who found no statistical relationship between the total number of miles between the client and the firm's headquarters. The findings from this study are in agreeance with Cagle et al. (2014) that there were no statistical significance between DISTANCE and DELAY ($p=0.67$), as well as a negative associations instead of the predicted positive direction. Therefore, hypothesis 7a was not supported.

Next, H7B predicted that the total number of miles between the auditor's headquarters and the audit client's administrative location would be associated with audit

reports failing to meet the North Carolina-mandated filing deadline for the same apparent reasons discussed above. The findings of this study did not support H7b, as there were no statistical significance observed between DISTANCE and LATE ($p=0.42$).

Auditor Engagements. H8A of the audit environment group for this study related to the ENGAGEMENTS of the audit firm that completed the local government audit report. H8A predicted that LGUs contracted with a CPA firm that performed two or more local government audits would be positively associated with audit delay. Arifin (2016) uncovered a negative relationship between DLEAY and ENGAGEMENTS, while Cagle et al. (2014), found a positive association. However, as discussed earlier in this chapter, the collected data for the engagements variable predicted success perfectly; therefore, hypothesis 8a was not tested in the OLS model.

The final hypothesis, 8B predicted that LGUs contracted with a CPA firm that performed two or more local government audits would be associated with audit reports failing to meet North Carolina-mandated filing deadlines. As with the OLS model, success was predicted perfectly in the collected responses, therefore, hypothesis H8b was not tested in the logistic regression model.

Municipal Audits

Visualized in Table 3 during prior discussion in this chapter, were the significant differences in independent variables between LGUs of the municipality and county groups. The data collected for this research demonstrated that county audits took longer to complete than municipality audits (193 and 179.69 days for counties and municipalities, respectively). These results were similar to those of Cagle (2012), which

found that counties had a mean DELAY of 402.89 and 267.32 days for counties and municipalities.

Population

This research study answered the call for future research as produced in Cagle (2012). Variables from the (a) Report message content and managerial competency, (b) Accountability, and (c) Audit environment have been measured in prior studies to determine their association with audit report delay and LGUs submitting late audit reports. Tables 11 and 12 demonstrate the descriptive statistic findings for audit report delay and late submissions from the Cagle (2012) study that observed responses to such variables for LGUs in Mississippi. However, most of the LGUs had smaller populations under 5,000, presenting challenges for understanding how these variables influenced larger organizations, prompting the call for future research into other states with local government populations greater than 5,000.

In this study, 41% of the sample set included North Carolina LGUs with populations greater than 5,000. DELAY was measured as the number of days between the fiscal year-end and the State and Local Government Finance Division stamp review date on the audit report. For those NC LGUs with a population greater than 5,000, the mean DELAY experienced was 181.29 days. North Carolina mandates a deadline of December 1 annually for the submission of audit reports. For those units with populations greater than 5,000, the mean number of days to submit the audit report after the deadline was 58.36. While those with populations smaller than 5,000 took a mean of 27.20 days to submit after the deadline. In addition to observing population size, this study extend testing into governmental environments that imposed consequences for late audit

submissions. Comparing the findings of Cagle (2012), as presented in Tables 12 and 13, LGUs with no consequences enforced for late audit submissions had a higher delay time than those government units with consequences imposed. Similar in both studies, is the finding that counties required a longer time to submit their audited financial statements, regardless of population size and legal environment. These findings are shown in Table 10.

Table 10:

County versus Municipality Audit Report Delay Differing Legal Environments

	Legal Environments	
	CAGLE (2012)	NC LGU FY21
<i>Dependent Variable: DELAY (days)(mean)</i>		
Sample	399.66	182.06
On-Time	248.57	128.81
Late	504.50	199.95
Counties	402.89	192.76
Municipalities	267.32	179.85

Like Cagle (2012), this study examined units with a population smaller than 5,000. The purpose was to draw a conclusion about the comparability of the two states as well as the advancement of new findings in a more current setting. Findings show that the mean DELAY for units with a population smaller than 5,000 of 182.26 days. For those units that submitted their report after the December 1 deadline, the mean number of days late was 59.15. For those units that submitted their audit reports after the December 1 deadline, a mean of 28.07 was demonstrated. Cagle (2012) found that there was a mean DELAY of 399.66 days across the entire sample. A mean DELAY of 248.57 days for

those submitting audit reports on time and 504.50 for those submitting late audits were also represented in Cagle (2012). For similar population sizes, the Cagle (2012) study experienced a mean number of total days to complete an audit that was double the mean of units with populations smaller than 5,000 observed in this research (Table 11). In comparing the two population groups (>5,000, <5,000), the study demonstrated that the North Carolina mean DELAY witnessed for both groups was half the mean DELAY of the LGUs in Mississippi, as observed by Cagle (2012).

Table 11:

Cagle (2012) Population Comparison of Legal Environments

	CAGLE (2012)	NC LGU FY21*
<i>Dependent Variable: DELAY</i>		
<i>(days)(mean)</i>		
Sample	399.66	182.60
Counties	402.89	182**
Municipalities	267.32	182.59

*Represents sampled LGUs in NC with populations under 5,000.

**Only one county included

While population theory states that organizations of like size should experience similar dynamics, there were notable differences in the state structures (North Carolina and Mississippi) that could provide reasoning. As discussed in the introduction of this study, North Carolina imposes strict consequences for not meeting the state-mandated audit report deadline, as opposed to a lack of enforcement or punishments in Mississippi. Comparable to those LGUs with populations greater than 5,000, those LGUs with populations lower than 5,000 in North Carolina demonstrated a lower delay time than those governmental units in the Cagle (2012) study. Considering both populations sizes

are under 5,000, the increased audit delay in the Cagle (2012) study is attributed to the lack of consequences in Mississippi during the fiscal year studied. The observed differences in the legal environments of this study and the Cagle (2012) study indicate that local government leaders need to consider imposing consequences for late audit submissions as motivation to reduce audit delay.

Table 12:

Descriptive Statistics from Cagle (2012) a Comparison of Late and Timely Audits

Variables	Total (n=166)	Late Audits (n=98)	Timely Audits (n=68)
<i>Dependent Variable: DELAY</i>			
Mean (Standard Deviation)	399.66 (172.49)	504.50 (142.48)	248.57 (68.06)
Range	87 to 1046	367 to 1046	87 to 365
<i>Report Message Content and Managerial Competency:</i>			
POSITION			
Mean (Standard Deviation)	2.12 (1.41)	2.07 (1.60)	2.18 (1.10)
Range	0.19 to 7.09	0.19 to 7.09	0.21 to 6.21
PERFORMANCE			
Mean (Standard Deviation)	5.11 (11.44)	4.81 (13.26)	5.53 (8.21)
Range	-70 to 38	-70 to 38	-18 to 34
FINDINGS			
Mean (Standard Deviation)	4.11 (5.18)	5.33 *** (5.74)	2.37*** (3.62)
Range	0 to 34	0 to 34	0 to 16
OPINION (frequency)	21.08%	28.57% ***	10.29%***
<i>Accountability:</i>			
DEBT (millions)			
Mean (Standard Deviation)	\$17.66 (\$35.82)	\$14.22 (\$22.41)	\$22.61 (\$48.90)
Range	\$0 to \$352.04	\$20.8 to \$129.2	\$0 to \$352.0
SINGLEAUDIT (frequency)	51.20%	55.10%	45.59%

Variables	Total (n=166)	Late Audits (n=98)	Timely Audits (n=68)
<i>Audit Environment:</i>			
FUNDS*			
Mean (Standard Deviation)	3.63 (1.49)	3.59 (1.45)	3.69 (1.55)
Range	1 to 8	1 to 8	2 to 8
DISTANCE			
Mean (Standard Deviation)	37.77 (45.75)	45.08** (48.74)	27.22** (39.04)
Range	1 to 238	1 to 170	1 to 238
EXPERTISE*			
Mean (Standard Deviation)	6.78 (6.61)	7.16 (7.06)	6.22 (5.90)
Range	1 to 24	1 to 24	1 to 24

Note: For comparisons of governments filing late audits and governments filing timely audits, t-tests were used to determine significant differences for continuous variables, and chi-squared tests were used to determine significant differences for dichotomous variables

***p<0.001 one-tailed test

**p<0.01 one-tailed test

*Difference in variable measurements relevant to this study

In summary, the data collected and analyzed demonstrated statistical significance in audit report delay as it related to a variable assigned to the report message content and managerial competency group. Analytics show that the variable FINDINGS was the only statistically significantly variable that influenced audit report delays across the sample. Regarding the dependent variable LATE, variables from report message content and managerial competency and accountability groups were found to have had a significant influence. Analytics demonstrated that FINDINGS and SINGLEAUDIT both significantly influenced late audit report submissions. When comparing the three groups, on-time versus late filers, counties versus municipalities, and populations smaller than 5,000 and greater than 5,000, further statistical differences were discovered. For the group of on time versus late filers, statistical differences were associated with the

variables FINDINGS and SINGLEAUDIT. For those observed in the group of counties versus municipalities, statistical differences were discovered in the DEBTTOEQUITY, POSITION, PERFORMANCE, FINDINGS, SINGLEAUDIT, DEBT, FUNDS, and DISTANCE variables. The final group examined the statistical differences in variables for those observations associated with populations smaller and greater than 5,000. Statistical differences for this group were present in the DEBTTOEQUITY, POSITION, SINGLEAUDIT, DEBT, FUNDS and DISTANCE variables. Further discussion into the influence of these statistically significant variables is provided in the next chapter, in addition to finding implications and suggestions for future research.

CHAPTER 5 CONCLUSION

For effective decisions to be made, audited financial reports must be made available to internal and external users in a timely manner. Agency theory explains why information asymmetry should be a concern for all parties. As it relates to local government environments, citizens and taxpayers elect a BOC to oversee the execution of public funds through the actions of an appointed county or city manager. To make decisions, all stakeholders need access to annual audited financial statements so that they have the same knowledge available as those preparing the information. Federal and state agencies grant funding for public programs to local governments on a large scale. Therefore, distributing audited reports is essential to ensure compliance with program regulations. LGUs have the authority to invest in approved marketplaces and fulfill debt covenants for obligations obtained through banks, prompting an urgency for external investors and lenders to have timely relevant information about the unit's financial health.

While the timeliness of audits has continued to be an issue for local governments in general, North Carolina leaders are taking the initiative to address the problem. While some states do not impose consequences for audit reports submitted late, North Carolina does, and in fact, has intensified the consequences over the last two years. North Carolina leaders are attempting to understand which factors within the annual audit report process significantly influences the timeliness of audit submissions. This research presented, explained, and tested variables that were hypothesized to influence audit report delays in North Carolina. This study examined the determinants of late audit reports to test for any statistical differences in variables for those units that submitted their annual audit reports

on time and those that submitted late. The research questions considered the possible impact on audit report delay as it pertains to (a) Report message content and managerial competency, (b) Accountability, and (c) Audit environment (Cagle, 2012). The remainder of this chapter provides a summary and discussion of the findings for each of the eight research questions presented earlier in this study, limitations related to the study, and suggestions for future research related to audit report delays.

Summary of Findings

Research Question 1—Financial Statement Ratios: Debt-to-Equity, Position, and Performance Ratios

The first research question presented in this study concerned analyzing whether the financial report message was a significant predictor of (a) audit report delay and (b) audit reports failing to meet North Carolina state-mandated deadlines. Key financial statement ratios were examined to include debt-to-equity, position, and performance measure the financial report message. This research study hypothesized that key financial statement ratios that presented themselves as favorable indicated that a government unit would submit their reports more quickly as they had positive news to share. The results of this study found that we would reject this hypothesis.

The results of this study did not indicate that favorable financial statement ratios were associated with audit report delays or whether or not a government unit submitted its audit report on time. The statistical significance did not show financial statement ratios as predictors of decreased audit report delay or on-time audit reports.

Regarding favorable financial statement ratios, the study's findings contradicted the prediction and prior literature concerning signaling theory. As discussed in Chapter 2,

the Hamidah & Arisukma (2020) study demonstrated that the timeliness of audit report submissions signaled good or bad financial management. Findings from this study did not support this claim as the financial statement ratios had no significance on decreased audit report delay or if an LGU submitted its audit report late. Findings implicated that increased audit report delay was associated with the financial statement ratios, position, and performance. These findings agreed with those in the Cagle (2012) study, which was one of the first to explore position and performance ratios related to local government audit delay.

Debt-to-equity was included in this study to extend an understanding of how solvency ratios influenced audit delays and on-time report submissions in local governments, with motivation drawn from the contradicting recent findings of publicly traded companies (Annisa & Hamzah, 2021; Tanulia et al. (2022)). Surprisingly, the debt-to-equity ratio presented differing results from the position and performance financial ratios. Debt-to-equity in this study was demonstrated to have a negative relationship with audit delays experienced by LGUs, therefore, aligning with the results of the Tanulia et al., (2022) study. The coefficient correlation suggested a decrease in audit report delay for those units with a favorable debt-to-equity ratio.

Considering the financial ratio associated with solvency had demonstrated a decrease in audit report delay, it was implied that those units utilizing their equity to cover debt payments were incentivized to provide investors and lenders, with timely audit reports. Whereas, the manner in which the LGU held and utilized assets during the fiscal year (position and performance) provided no motivation or significance to units to decrease audit report delay. Drawing from the implications of the financial ratios

analyzed in this study, further research should be conducted to identify the differences in financial ratio structures that may be associated with differing influence on audit report delay and units failing to submit audit reports on time.

Research Questions 2 —Audit Findings

The next research question of concern was whether or not the total number of audit findings detailed in the audit report was a significant predictor of audit report delay and whether the LGU failed to submit its audit report before the North Carolina state-mandated deadline. Findings from this research study indicated that the total number of audit findings were associated with increased audit report delays. In addition, the findings also suggested that the total number of findings was a significant predictor of audit report delay and audit reports failing to meet the North Carolina state-mandated deadline.

Signaling theory indicates that good news incentivizes leaders to submit timely audit reports. Therefore, when LGUs receive audit findings, bad news will be shared with end users. The concept of having to share bad news found in audited financial statements justifies untimely submissions of such reports. Considering the financial director and team's direct role of controlling and monitoring the financial statements throughout the year, many findings could signal an incompetent management team. The presence of an incompetent management team could present several barriers when completing the audit process, such as delay in the passage of material between the LGU and the independent audit firm, inaccurate records kept throughout the fiscal year, and a lack of understanding of basic accounting principles.

Research Question 3—Audit Opinion

The third research question in this study concerned the audit opinion that independent auditors issued to LGUs regarding their compliance and presentation of financial statements in accordance with GAAP. This research question analyzed if issuing an other-than-unqualified opinion significantly predicted audit report delay for North Carolina LGUs. In addition, the third research question sought to understand if the issuance of such an opinion was a significant predictor of audit reports submitted after the state-mandated grace period. Prior studies demonstrated a strong relationship between the issuance of an audit opinion and the length of delay experienced for audit report submission.

While not anticipated, the findings of this research could not express a statistical measurement of the significance between the type of opinion issued and audit report delay and whether an LGU submitted its audit report after the state-mandated deadline. This was due to collinearity, considering less than 1% of the sample included in this study received an other-than-unqualified opinion. Collinearity resulted in the opinion variables' omission from the OLS and logistic regression models. While this was not expected, the findings demonstrated to end-users that their investments and tax payment contributions had been captured in the unit's financial statements in accordance with GAAP for the 2021 fiscal year. These findings could, perhaps, indicate that auditors are hesitant to issue that strong of an opinion given the repercussions. Future research should analyze how each opinion type specifically influences audit report delay and audit reports being submitted after the state-mandated deadline. For this study, adverse, disclaimer, and qualified opinions were assigned to one category, while an unqualified opinion was

assigned to its own category. As discussed earlier in this study, all LGUs in North Carolina are required to present their financial statements in conformity with GAAP. Therefore, the type of opinion issued by the independent audit firm should be unqualified. Opinions issued that are qualified, violate the expectations of the LGU, which justified the use of this measurement in this study. By providing four categories instead of two, the data becomes more diversified allowing for further exploration in environments that do not have restrictions on how financial statements must be prepared.

Research Questions 4- Long-Term Debt

As discussed in Chapter 4, LGUs that did not submit their annual audit reports within the period of this study were removed from the sample. In addition, units that had yet to submit their annual financial information report were removed from the sample, as the long-term debt obligation data presented in this report was unavailable to efficiently analyze research question four. Missing reports did not allow information on long-term debt expenditures to be obtained as this study collected the long-term debt variable information from the audit information report and not the audited financial statements. However, for those units that had submitted both reports within the period of this study, this fourth research question was presented to determine if the long-term debt was a significant predictor of (a) audit report delay and (b) if a unit submits their audit report on time or not. This research study hypothesized that increased debt would decrease audit report delay. This assumption came from the notion of accountability addressed earlier in this study. Having outstanding debt-payments should motivate LGUs to submit timely reports. Banks require LGUs to fulfill debt covenants for agreements the unit has entered. Therefore, the bank requires audited financial statements to gain confidence that the LGU

is in a financially sound state when conducting business. Outstanding debt of LGU should also incentivize management to produce timely audited financial statements to avoid placement on the UAL as discussed in prior chapters. Once placed on the UAL, units will not be allowed to borrow debt, which can result in the financial burden shifting to taxpayers. Findings from the models run in this study did not support this hypothesis.

The results of this study were similar to those of prior research regarding audit report delays. It can be interpreted that those units with higher amounts of debt take longer to complete, as the audit firm has to conduct additional testing not required of those units with smaller, if not free of, debt. However, additional perspectives on long-term debt could be measured in accordance. The future research section of this chapter will provide further discussion.

Research Question 5—Single Audit Act

Another measurement of accountability presented in this research study is the requirement of the Single Audit. As previously discussed, specific units are required to undergo an additional audit regarding the use of federal and state funds. The fifth research question posed in this study focused on whether the requirement to comply with the Single Audit Act was a significant predictor of local government unit (a) audit report delay and if it was a significant predictor of (b) units submitting audit reports before or after the North Carolina state-mandated grace period.

The related hypothesis predicted that the requirement to comply with additional reporting deadlines for local government audits would result in units experiencing shorter delays and submitting their reports on time. However, this study's results indicated no significance between units required to comply with the Single Audit Act and audit report

delays. However, there was a significance between the units required to comply and audit reports submitted late. Differences presented in the dependent variables delay and late are contributed to the nature of the variables. Audit report delay was measured using the number of days, whereas the dependent variable late demonstrated a yes or no response per a set date. The range for the sample was rather large, indicating that a LGU could miss the date to be considered late but not miss it by many, as some were only as late as a day and others as late as 403 days. The notion was that the additional due date requirements for the Single Audit would allow units to submit their reports on time. However, that was not demonstrated to be the case in this study. Those required to submit the Single Audit were associated with late audit reports. The statistical testing provided evidence that units required to submit the Single Audit prepared the audited financial statements at the same time as the Single Audit. Therefore, more extensive testing occurred during the normal audit process, which could be attributed to those required to file the Single Audit submitting their annual audited financial statements late. While audit report delay was measured as a number of days without a definite cut-off, late was measured as reports received after December 1, 2021. Therefore, the Single Audit could be late while not being delayed beyond the mean audit delay of 182.06 days. The Single Audit Act requires that reports be filed with the federal clearinghouse within nine months of year-end or 30 days after issuing the local government's annual audit report. Further justification of these findings is discussed in the implication section of this chapter as suggestions for management teams to consider during audit planning conversations with their contracted independent audit firm.

Research Questions 6—Reported Major Funds

The first audit environment variable funds represented the sixth research question proposed in this study. This research question focused on if LGUs with three or more reported major funds would be positively associated (a) audit report delay and (b) if the unit failed to meet the NC state-mandated deadline. Considering the complexity involved with testing major funds of LGUs, it was hypothesized that those units with three or more major funds would experience longer audit delays and be associated with units not submitting audit reports before the North Carolina state-mandated grace period. For the purpose of this study, those units reporting three or more major funds were coded “1”, and those with less than three were coded “0”.

Findings from models run on the collected data demonstrated that the audit report delay decreased as the number of major funds increased. There were no statistical significance between the number of major funds and if an audit report was submitted on time. Therefore, the total number of major funds had no significant influence on whether an audit report would be submitted after the North Carolina state-mandated deadline. These findings aligned with the results of the Payne & Jensen (2002) study, which was the first and only study for an extended period to consider complexity in terms of major funds and their influence on audit delay and audit submitting late reports. After the enactment of GASB Statement #34, Cagle (2012) also found there to be no statistical significance between the number of major funds and audit reports submitted late.

Although the Payne & Jensen (2002) study suggested that, more major funds required extensive testing, which would increase the delay time per major fund, that was

not found to be true in their study and was not the case for this study. Management teams can gain confidence in knowing that they will not necessarily be subject to late audit reports when considering taking on a new project that will require the establishment of a new major fund. During the fiscal year-end, the Finance Department prepares several journal entries in accordance with their responsibility to present financial statements fairly in accordance with GAAP. Each major fund must be reviewed, and any applicable adjustments must be made prior to sending financial statements to be audited. Therefore, it is pertinent that management understands if they need to adjust year-end approaches to allow more time to review and prepare the financial statements to be audited and submitted on time. Drawing from the findings of this study, LGU managers do not need to be concerned with whether they have three or more major funds or not, as there was no significant influence found in this study.

Research Questions 7—Travel Distance

The next research question investigated whether there was a significant impact on audit timeliness from the next variable representing the audit environment group, travel distance, between the LGU and the CPA firm. Cagle (2012) was the first study to examine this variable related to the timeliness of local government audit reports. This study hypothesized that the more miles a CPA firm had to travel to conduct the annual audit, the longer time delays the unit would experience.

The findings from this study did not support the hypothesis as it related to the total number of miles between the accounting firm and the audit report delay. In regards to the rejection of travel distance in relation to audit report delay, the findings of this study also did not support the hypothesis that the distance between the two is statistically

significant as it relates to the audit reports failing to meet the state-mandated deadline.

While this is still a relatively new discussion, additional elements could be addressed regarding the distance between the CPA firm conducting the local government audit and the LGU's Finance Department. While beyond the scope of this research, predictor factors such as telecommuting and reputation should be considered in regard to the influence distance has on audit report delays and LGUs submitting late audit reports. These factors should be tested as discussed in the future research section of this chapter.

Research Questions 8—Auditor Engagements

The final variable associated with the audit environment group concerns the number of audit engagements independent firms conducted for North Carolina LGUs for fiscal year 2021. The research question here explored if LGUs contracted with a CPA firm that performed two or more local government audit engagement was a predictor of (a) audit report delays and (b) whether or not a LGU submitted its audit report late.

Similar to the opinion variable discussed earlier in this chapter; the variable engagements predicted success perfectly, therefore, both hypotheses (H8a & H8b) were not tested.

While this study intended to measure auditor engagements as those firms with two or more LGU clients, future research could benefit from measuring the totality of audit firm engagements for LGUs to determine if there is more of an effect from a continuous variable approach as opposed to the categorical perspective taken in this study.

Implications

This research answered the call for research to analyze whether variables from the Cagle (2012) study presented the same findings in larger populations. Audit report delay did not demonstrate a statistical difference as it related to the population size of those

LGUs with populations smaller than 5,000 and those greater than. In addition, this study aimed to determine if the findings of audit variables from prior states applied to North Carolina. Statistical differences were observed between the two population groups in North Carolina as it pertained to the report message content and managerial competency financial ratio variables position and debt-to-equity. LGUs with population smaller than 5,000 demonstrated lower debt-to-equity ratios signaling that those LGUs with smaller populations utilized less debt to fund their operating budget than those LGUs in larger populations. Assumption can be made that smaller LGUs did not have the need to borrow funds for upscale projects. Additional assumptions could be made that lenders may be weary of lending to smaller LGUs. Findings from this study indicated that independent audit firms issued more findings to those LGUs with population sizes smaller than 5,000, than those units with larger population sizes. An indication can be drawn that smaller LGUs lack the Finance Department staff capacity to allow for proper controls and preparation of the financial statements.

Further statistical differences were found for the findings variable as it related to the same group. Literature has discussed the impact that the size of an organization has on its budget size. Considering local governments are funded heavily by taxpayers, it can be assumed that those with smaller populations have less tax basis to collect revenue, therefore, resulting in a reduced budget that would not allow for continuing education courses for the Finance Department staff. A lack in continuing education courses could be a contributing reason to units receiving findings, as staff are not at the competency level required to identify and correct issues related to the financials prior to the auditor issuing a finding.

Pertaining to the accountability variable group, both Single Audits and the total amount of outstanding debt were found to have statistical significance. Populations larger than 5,000 held more outstanding long-term debt on their financial statement than smaller LGUs. The implication from these findings related to the discussion for debt-to-equity and findings. The size of the LGU influences the budget capability due to the structure of LGUs financials. Larger populations have characteristics of requiring larger projects to meet citizen, taxpayers, and BOC needs. To avoid raising tax rates, LGUs rely on loans from banks to fund necessary projects. Therefore, it was not surprising that larger populations held more outstanding debt on their books than smaller units. LGUs with populations larger than 5,000 were required to complete Single Audits at a higher frequency than those of smaller populations. Considering the nature of the requirements to comply with the Single Audit Act, larger populations more closely align. This alignment comes true since LGUs with larger populations tend to have structural requirements to provide health care and social services to the public. The services offered through the various programs are heavily, if not completely, funded by federal and state-awarded grants. Therefore, requiring units to file the Single Audit Report.

Belonging to the audit environment group of variables, statistical significance was only demonstrated in distance. Those units with populations over 5,000 contracted with independent audit firms that were further from their Finance Department than those units with smaller populations. It could be implied that larger populations have greater miles in capacity, therefore, allowing for audit firms to be more spaced out than in smaller populations that would have less complete mileage for their geographical region.

When considering the different elements that comprise the audit reports, several factors may influence the capability to produce the reports in a timely manner. Results from the “audit report delay” model indicated that the total number of audit findings variable was a significant predictor of audit delay. Results from the “late” model demonstrated that the total number of findings, and the requirement to comply with the Single Audit Act, were statistically significant regarding timely audit submissions.

Audit findings highlight to external users that the LGU failed to comply with an accounting or local government regulation. During the audit process, the audit firm receives the trial balance from the LGUs’ Finance Department to conduct testing. Whenever an error is discovered, the auditors, in collaboration with the unit’s Finance team, research the root problem. This additional research extends the audit process, adding additional delay time. Considering the principle-agent relationship structure of LGUs, the BOC has the authority to require advanced training or educational status to hold a position in the Finance Department. By employing more competent staff or enhancing the education of those currently employed, LGUs can attempt to reduce the number of findings discovered in their audit report by the audit firm, ultimately decreasing audit delay and allowing units to submit on-time audit reports.

The requirement to submit a Single Audit in addition to the annual audit report was found to be significantly related to audit reports submitted late. During the data collection process, it was apparent that most units required to submit the Single Audit did so at the same time as the submission of their annual audit report. It should be noted that these are two separate audit reports that each required extensive time to complete. While

the audit report in North Carolina has a due date of October 31 with a grace period until December 1 annually, the Single Audit is not due until nine months after the fiscal year end of June 30, or 30 days after the audit report is issued, whichever is the earliest of the two. Considering the additional time allowed to complete the Single Audit Report, a potential improvement to reduce the chance of the annual audit report being submitted late would be to engage, prepare, finalize, and submit the Single Audit after the completed annual audit. Shifting the complete focus back to the annual audit during the specified period would potentially allow auditors to complete the audit sooner and not submit late audit reports.

The total number of miles between the audit firm and the LGU's Finance Department was a significant predictor of a unit submitting its audit report after the North Carolina state-mandated deadline. The common assumption is that if the auditor travels longer to reach a client, additional time will be needed to complete the audit. For example, testing may only last for seven hours on a given day; however, if the auditor has to drive for two hours, they may not get to test for as long that day or have to add additional time to get back to the office and compile documentation. Considering the advancement in technology since the fiscal year 2021 and global catastrophic events that changed how audits could be conducted, future research should consider different sociological factors that could better interpret the influence of distance on audit report delays and reports submitted after the state-mandated deadline. This will be discussed in detail in the further research section of this chapter.

Considering the increased consequences imposed on LGU leaders in North Carolina for submitting late audit reports, unit leaders should implement the time needed

to address the area of concerns as they relate to the total number of findings and complying with the Single Audit Act. Units should strive to avoid being placed on the UAL, which is a direct result of consistently submitting late audit reports to the LGC. Once units are placed on this list, they lose financial freedom and are more heavily regulated by the LGC. The unit will have to operate under reduced debt borrowing capacity and potentially be forced to pass imperative costs unjustly to the taxpayers. Pertinent attention to those audit areas will assist units in avoiding placement on the UAL.

A significant difference was observed between the two population groups (>5,000<) as it related to the independent variable's debt-to-equity, position, findings, debt, the Single Audit Report, and distance. Those LGUs with populations smaller than 5,000 had a lower debt-to-equity ratio that demonstrated those units used less debt to fund their operations for the fiscal year. While these findings demonstrated statistical differences in means for those unit groups, no influence was discovered on audit report delay or submitting late audit reports. Smaller LGUs on average were issued more findings than those LGUs with populations over 5,000. Leaders should investigate further to determine what characteristics of smaller LGUs result in additional findings. Population theory states that smaller populations have less tax basis and therefore, draw in less revenue. Considering LGUs are heavily funded through tax revenue, smaller populations are susceptible to smaller budgets that do not allow for further training of the Finance Department staff. This research demonstrated the total number of findings was associated with increased audit report delays and LGUs submitting late audit reports. Therefore, leaders should be motivated from these findings to develop programs that can

assist with the cost of continuing education courses if needed to enhance the competency levels of those responsible for preparing annual financial statements. Differences were observed in the population group in regard to those required to comply with the Single Audit Act. While the majority of those with populations greater than 5,000 were required to submit a Single Audit more frequently than smaller populations, the entire sample demonstrated that compliance with the Single Audit Act were associated with increased audit report delays and late audit reports. Therefore, leaders should investigate further to understand what characteristics are associated with Single Audits increasing audit report delay and units submitting late reports. Although the amount of outstanding long-term debt did not have an influence on audit report delay or LGUs submitting late audit reports, there were differences observed between the group of units with populations smaller and greater than 5,000. This study demonstrates that larger units of government utilized more outstanding debt to fund capital improvements and projects. The need to borrow greater amounts of debt for larger units of government can be associated with the structure of the unit and its requirements to provide specific public services to taxpayers and citizens. The final difference observed for this group was related to the total number of miles between the Finance Department and the CPA firm's headquarters. Findings demonstrated that larger LGUs contracted with CPA firms that were located further away from their Finance Department than those units with smaller populations. It is implied that larger populations had more geographic capacity to select from than those of smaller populations. However, further research would have to be conducted to determine if population size has an influence on the square feet in size of the county or municipality associated with the LGU.

North Carolina leaders are searching for a means to simplify the audit process for some LGUs. The timing of this research comes two years prior to a planned pilot design. Therefore, providing leaders with critical insight into which components of the audit process to focus on. Financial statement ratios demonstrated an area that should be reviewed to determine how the financial structure of a unit could determine the scope of the audit needed. Although there was a statistical difference between the two groups as it relates to FINDINGS, it does not constitute an area that leaders could simplify due to the fact that findings are issued through auditor review after the financial statements have been furnished for testing. However, the requirement to comply with the Single Audit Act is a component of the audit process that leaders could consider simplifying or restricting. As discussed earlier, it is apparent that most units, if required to comply with the Single Audit Act, will submit it with their annual audit report, adding time to the audit delay. Local leaders could consider imposing a regulation that the Single Audit testing cannot be conducted during the annual audit or extend the due date of the Single Audit. The LGU's management team may only contract with independent audit firms approved by the North Carolina Department of State Treasurer LGC. Local leaders could consider adding restrictions that the firm must still be located within a certain distance of the LGU they are auditing to reduce the time it takes to complete the audit. Considering the LGC must approve all contracts before testing can begin, leaders would have direct control over ensuring the miles clause is met.

Limitations

As with all research studies, limitations should be considered and disclosed to interpret the findings of this study properly. While audit report delays have continued to

be a growing problem across countries and different industries, this research study specifically collected data only from North Carolina LGUs within the state. In this regard, caution must be utilized when generalizing this study's findings to other states, countries, or industries. While this study attempted to collect data that would include all audit reports for North Carolina LGUs, still two years after FYE2021, several counties and municipalities had to be removed from the sample for not having submitted either their audit report or annual financial information report. With the exception of two variables, population and debt, all data for this study was collected from the audited financial statements. Therefore, there were 12 counties omitted due to not submitting FY21 audited financial statements. Only four municipalities were removed due to not submitting their FY21 audited financial statements. A major limitation to this study was that the data for the variable, debt, used to measure outstanding debt of a LGU, was collected from the Audited Financial Information Report as opposed to the audited financial statements. In addition, data utilized to measure the populations for LGUs were also collected from the Audited Financial Information Report. Therefore, if a LGU's information was not available in the database, it was removed from the sample. The selected methodology for this study resulted in 122 municipalities' omission. Therefore, the findings of this study only represent those LGUs that submitted an FY21 audit and information report as of June 1, 2023.

Consideration should be given when comparing the results of this study with those of prior local government audits. This study used the date on which the LGC-stamped the LGU audited financial statements were reviewed as opposed to the date on the audit report, therefore, changing the measurement for the dependent DELAY

variable. Additionally, not all states in the United States impose consequences for submitting late audit reports. North Carolina leaders have increased the consequences of submitting late audits over the last three fiscal years. Therefore, LGUs are motivated to submit reports sooner, and not all states have this initiative.

Future Research

North Carolina LGUs submit their audit reports annually to the LGC. These annual reports are then reviewed by the State and Local Government Financial Division and stamped as such. In North Carolina specifically, the LGC must review the audit report prior to its publication to end users. Therefore, for the purpose of this study and in combination with answering calls for future research the dependent variable delay was measured as the number of days between the fiscal year-end and the SLGFD stamp date. Future research should pursue an understanding of the delay time added through LGC review. Further understanding of the process for the LGC to review audit reports could provide an understanding of whether the review period significantly influences delays.

The North Carolina Department of State Treasurer LGC is in the beginning stages of developing a new approach to the LGU annual audit process. Findings from this study will contribute an understanding to leaders as they strategically approach designing an audit process that will continue to reduce information asymmetry while decreasing the audit report delay and minimizing audit reports submitted after the state-mandated deadline. Once the new design has been initiated, future research should compare the delay and on-time submission findings under the newly designed approach as opposed to the findings of this study.

The number of miles between an independent CPA firm's headquarters and the LGU's Finance Department was not determined to be a significant predictor of audit report delay and reports failing to meet state-mandated deadlines. While this variable was hypothesized and measured based on the notion that travel time was the reason for increased delays. Future research could conduct surveys to determine if CPA firms prioritize audit reports depending on the client's location for reputation purposes. Additional research into whether firms prefer to complete clients' audit reports in their hometowns in order to maintain a prestige ranking would be beneficial for management teams to understand when contracting with audit firms.

Prior research had primarily measured the association between long-term debt and audit report delays as the amount of total outstanding debt presented on the financial statements. LGUs that rely on funding from banks should have a sense of urgency to provide external lenders with validation of sound financial health, only available through the audited financial report. The amount of long-term debt is also associated with it taking longer for audit firms to conduct testing. However, another perspective into the time it takes to conduct the debt testing could be observed through the number of loan covenants a local government unit has. For instance, a LGU could possess \$10,000,000 in outstanding loan debt on the financial statements and only actually have three loans totaling that amount, only requiring three sets of tests, as opposed to a local government with an identical amount of outstanding long-term debt, except composed of 15 loans total, requiring five times the effort of the earlier. Therefore, future research should explore the relationship between the total number of loan covenants related to audit report delays versus the amount of long-term outstanding debt.

The findings of this research study, and from Cagle (2012), represented only the country's Southern states (N.C. and M.S. respectively). The findings from this research and the Cagle (2012) study showed the differences between having legislation that imposed consequences and those that did not. The Cagle (2012) study mentioned Mississippi not having consequences for late audit reports during the fiscal year sampled and noted that contributed to delayed audit reports. However, future research should investigate the same variable groups related to audit report delay and on-time audit reports in other regions of the country. Additional research from these perspectives can help strengthen the conclusion concerning local government audit reports across the country, which in turn could present a more extensive solution to the costly and frequent problem of audit delays and late report submissions.

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Appendix A

On-Time vs Late Audit Reports Two Mean Comparison: Report Message Content and Managerial Competency

Table A. DEBTTOEQUITY

LATE	384.0000	0.1571	0.1738	0.3406	0.1229	0.1912
ON-TIME	129.0000	0.1203	0.0165	0.1880	0.0878	0.1533
COMBINED	513.0000	0.1479	0.0137	0.3096	0.1210	0.1747
diff		0.0365	0.0315		-0.0254	0.0984

diff = mean(ON-TIME) mean(LATE) t=1.1587
H0: diff = 0 Degrees of freedom= 511
H0: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.1236 Pr(T > t) = 0.2471 Pr(T > t) = 0.8764

Note. No statistical differences.

Table B. POSITION

LATE	384.0000	3.1869	0.4328	8.4817	2.3359	4.0379
ON-TIME	129.0000	2.8520	0.2061	2.3404	2.4443	3.2598
COMBINED	513.0000	3.1027	0.3280	7.4300	2.4582	3.7472
diff		0.3349	0.7567		-1.1518	1.8215

diff = mean(ON-TIME) mean(LATE) t= - 0.4425
H0: diff = 0 Degrees of freedom= 511
H0: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.3291 Pr(T > t) = 0.6583 Pr(T > t) = 0.6709

Note. No statistical differences.

Table C. PERFORMANCE

Group	Obs.	Mean	Std. err.	Std. dev.	95% Conf Int	
LATE	384	0.2882	0.2197	4.3061	-0.1439	0.7202
ON-TIME	129	0.0599	0.0151	0.1713	0.0301	0.0898
COMBINED	513	0.2308	0.1645	3.7267	-0.0925	0.5540
diff		0.2283	0.3795		-0.5173	0.9738

diff = mean(ON-TIME) mean(LATE) $t = -0.6015$

H0: diff = 0 Degrees of freedom = 511

H0: diff < 0 Ha: diff != 0 Ha: diff > 0

Pr(T < t) = 0.2739 Pr(T > t) = 0.5478 Pr(T > t) = 0.7261

Note. No statistical differences.

Table D. FINDINGS

COMBINED	513	0.6277	0.0544	1.2326	0.5208	0.7346
diff		0.3622	0.1245		0.1175	0.6068

diff = mean(ON-TIME) mean(LATE) $t = -2.9082$

H0: diff = 0 Degrees of freedom = 511

H0: diff < 0 Ha: diff != 0 Ha: diff > 0

Pr(T < t) = 0.0019 Pr(T > t) = 0.0038 Pr(T > t) = 0.9981

Note. Statistical differences (p < .05)

Table E. OPINION

LATE	381	3	384
	0	0.3	0.3
	74.71	100	74.85
ON-TIME	129	0	129
	0	0.8	0.8
	25.29	0.00	25.15
Total	510	3	513
	0	1	1.00
	100	100	100

Pearson $\chi^2(1) = 1.0137$

Pr = .314

Note. No statistical differences.

On-Time vs Late Audit Reports Two Mean Comparison: Accountability

Table F. DEBT

Group	Obs.	Mean	Std. err.	Std. dev.	95% Conf Int	
LATE	384	8169458	2800441	5.49	2663295	1.37
ON-TIME	129	3750726	1284785	1.46	1208558.0	6292893
COMBINED	513	7058315	2121856	4.81	2889700	1.12
diff		4418733	4891599		-1.40	5191387.00

diff = mean(ON-TIME)

mean(LATE)

t = - 0.9033

H0: diff = 0

Degrees of freedom = 511

H0: diff < 0

Ha: diff != 0

Ha: diff > 0

Pr(T < t) = 0.1834

Pr(T > t) = 0.3668

Pr(T > t) = 0.8166

Note. No statistical differences.

Table G. SINGLEAUDIT

SINGLEAUDIT			
Group	NOT		Total
	REQUIRED	REQUIRED	
LATE	210	174	384
	69	83.3	74.9
ON-TIME	94	35	129
	31	16.8	25.2
Total	304	209	513
	100	100	100.00

Pearson chi2(1) = 13.2203

Pr = 0.000

Note. Statistical differences ($p < .05$).

On-Time vs Late Audit Reports Two Mean Comparison: Audit Environment

Table H. FUNDS

FUNDS			
Group	Two or		Total
	Less	Three or More	
LATE	298	86	384
	0.1	0.4	0.6
	73.40	80.37	74.85
ON-TIME	108	21	129
	0.3	1.3	1.6
	26.60	19.63	25.15
Total	406	107	513
	0.5	1.7	2.20
	100	100	100

Pearson chi2(1) = 2.1886

Pr = 0.139

Note. No statistical differences.

Table I. DISTANCE

Group	Obs.	Mean	Std. err.	Std. dev.	95% Conf Int	
LATE	384	70.2500	3.4099	66.8205	63.5455	76.9545
ON-TIME	129	83.5798	7.7482	88.0028	68.2487	98.9110
COMBINED	513	73.6020	3.2172	72.8673	67.2815	79.9224
diff		-13.3298	7.3991		-27.8663	1.2066

diff = mean(LATE) - mean(ON-TIME) $t = -1.8015$
 H0: diff = 0 Degrees of freedom = 511

H0: diff < 0 Ha: diff != 0 Ha: diff > 0
 Pr(T < t) = 0.0361 Pr(T > t) = 0.0722 Pr(T > t) = 0.9639

Note. No statistical differences.

Table J. ENGAGEMENTS

Group	ENGAGEMENTS		Total
	ONE CLIENT	TWO OR MORE CLIENTS	
LATE	9	375	384
	0.3	0.0	0.3
ON-TIME	1	128	129
	0.9	0.0	0.9
Total	10	503	513
	1.2	0.0	1.2

Pearson chi2(1) = 3.4262
 Pr = 0.064

Note. No statistical differences.

Appendix B

Municipality versus County Filers Two Mean Comparison: Report Message Content and Managerial Competency

Table A. DEBTTOEQUITY

<i>Group</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. err.</i>	<i>Std. dev.</i>	<i>95% Conf Int</i>	
MUNICIPALITY	425	0.1308	0.0160	0.3291	0.0994	0.1622
COUNTY	88	0.2306	0.0178	0.1667	0.1952	0.2659
COMBINED	513	0.1479	0.0137	0.3096	0.1210	0.1747
diff		-0.0998	0.0360		-0.1706	-0.0290

diff = mean(MUNICIPALITY) - mean(COUNTY)

t=-2.7699

H0: diff = 0

Degrees of freedom= 511

H0: diff < 0

Ha: diff != 0

Ha: diff > 0

Pr(T < t) = 0.0029

Pr(T > t) = 0.0058

Pr(T > t) = 0.9971

Note. Statistical differences (p<.05).

Table B. POSITION

<i>Group</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. err.</i>	<i>Std. dev.</i>	<i>95% Conf Int</i>	
MUNICIPALITY	425	3.6316	0.3908	8.0565	2.8634	4.3997
COUNTY	88	0.5485	0.0818	0.7672	0.3860	0.7111
COMBINED	513	3.1027	0.3280	7.4300	2.4582	3.7472
diff		3.0831	0.8603		1.3929	4.7732

diff = mean(MUNICIPALITY) - mean(COUNTY)

t=-3.5837

H0: diff = 0

Degrees of freedom= 511

H0: diff < 0

Ha: diff != 0

Ha: diff > 0

Pr(T < t) = 0.9998

Pr(T > t) = 0.0004

Pr(T > t) = 0.0002

Note. Statistical differences (p<.05).

Table C. PERFORMANCE

Group	Obs.	Mean	Std. err.	Std. dev.	95% Conf Int	
MUNICIPALITY	425	0.0624	0.0054	0.1108	0.0519	0.0730
COUNTY	88	1.0439	0.9586	8.9925	-0.8615	2.9492
COMBINED	513	0.2308	0.1645	3.7267	-0.0925	0.5540
diff		-0.9814	0.4347		-1.8355	-0.1274

diff = mean(MUNICIPALITY) - mean(COUNTY) t=-2.2576

H0: diff = 0 Degrees of freedom= 511

H0: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.0122 Pr(T > t) = 0.0244 Pr(T > t) = 0.9878

Note. Statistical differences (p<.05).

Table D. FINDINGS

Group	Obs.	Mean	Std. err.	Std. dev.	95% Conf Int	
MUNICIPALITY	425	0.4565	0.0468	0.9657	0.3644	0.5485
COUNTY	88	1.4545	0.2012	1.8871	1.0547	1.8544
COMBINED	513	0.6277	0.0544	1.2326	0.5208	0.7346
diff		-0.9981	0.1376		-1.2684	-0.7278

diff = mean(MUNICIPALITY) - mean(COUNTY) t=-7.2540

H0: diff = 0 Degrees of freedom= 511

H0: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.0000 Pr(T > t) = 0.0000 Pr(T > t) = 1.0000

Note. Statistical differences (p<.05).

Table E. OPINION

Group	OPINION		Total
	UNQUAL- IFIED	OTHER-THAN- UNQUALIFIED	
MUNICIPALITY	422	3	425
	0	0.1	0.1
	99.29	0.71	100
COUNTY	88	0	88
	0	0.5	0.5
	100.00	0.00	100
Total	510	3	513
	0	0.6	0.60
	99.42	0.58	100

Pearson chi2(1) = .6248

Pr = .429

Note. No statistical differences.

Municipality versus County Filers Two Mean Comparison: Accountability

Table F. DEBT

Group	Obs.	Mean	Std. err.	Std. dev.	95% Conf Int	
MUNICIPALITY	425	4538337	2341264	4.83	-63593	9140266
COUNTY	88	1.92	4835946	4.54	9616699.0	2.88
COMBINED	513	7058315	2121856	4.81	2889700	1.12
diff		5853080	4888651		-2.57	-3695424.00

diff = mean(MUNICIPALITY) - mean(COUNTY)

t = -2.6249

H0: diff = 0

Degrees of freedom = 511

H0: diff < 0

Ha: diff != 0

Ha: diff > 0

Pr(T < t) = 0.0045

Pr(T > t) = 0.0089

Pr(T > t) = 0.9955

Note. Statistical differences (p < .05).

Table G. SINGLEAUDIT

ENGAGEMENTS			
Group	ONE	TWO OR MORE	Total
	CLIENT	CLIENTS	
MUNICIPALITY	296	129	425
	7.7	11.3	19.0
COUNTY	8	80	88
	37.4	54.4	91.7
Total	304	209	513
	45.1	65.6	110.7

Pearson chi2(1) = 110.7352
Pr = 0.000

Note. Statistical differences (p<.05).

Municipality versus County Filers Two Mean Comparison: Audit Environment

Table H. FUNDS

FUNDS			
Group	Two or	Three or More	Total
	Less		
MUNICIPALITY	373	86	425
	4.0	0.4	19.1
COUNTY	33	21	88
	19.3	1.3	92.4
Total	406	107	513
	23.3	88.3	111.60

Pearson chi2(1) = 111.5849
Pr = 0.000

Note. Statistical differences (p<.05)

Table I. DISTANCE

<i>Group</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. err.</i>	<i>Std. dev.</i>	<i>95% Conf Int</i>	
MUNICIPALITY	425	70.2500	3.4099	66.8205	63.5455	76.9545
COUNTY	88	83.5798	7.7482	88.0028	68.2487	98.9110
COMBINED	513	73.6020	3.2172	72.8673	67.2815	79.9224
diff		-13.3298	7.3991		-27.8663	1.2066

diff = mean(MUNICIPALITY) - mean(COUNTY)

t=-1.8015

H0: diff = 0

Degrees of freedom= 511

H0: diff < 0

Ha: diff != 0

Ha: diff > 0

Pr(T < t) = 0.0361

Pr(T > t) = 0.0722

Pr(T > t) = 0.9639

Note. No statistical differences.

Table J. ENGAGEMENTS

<i>Group</i>	ENGAGEMENTS		<i>Total</i>
	<i>ONE CLIENT</i>	<i>TWO OR MORE CLIENTS</i>	
MUNICIPALITY	7	418	425
	0.2	0.0	0.2
LATE	3	85	88
	1.0	0.0	1.0
Total	10	503	513
	1.2	0.0	1.2

Pearson chi2(1) = 1.1843

Pr = 0.276

Note. No statistical differences.

Appendix C

Populations Greater Than 5,000 versus Populations Smaller Than 5,000 Two Mean

Comparison: Report Message Content and Managerial Competency

Table A. DEBTTTOEQUITY

<i>Group</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. err.</i>	<i>Std. dev.</i>	<i>95% Conf Int</i>	
< 5,000	304	0.0802	0.0113	0.1971	0.0580	0.1025
> 5,000	209	0.2463	0.0279	0.4036	0.1913	0.3013
COMBINED	513	0.1479	0.0137	0.3096	0.1210	0.1747
diff		-0.1661	0.0269		-0.2188	-0.1133

diff = mean(< 5,000) mean(> 5,000) t=-6.1822
H0: diff=0 Degrees of freedom= 511

H0: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.0000 Pr(T > t) = 0.0000 Pr(T > t) = 1.0000

Note. Statistical differences (p<.05).

Table B. POSITION

<i>Group</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. err.</i>	<i>Std. dev.</i>	<i>95% Conf Int</i>	
< 5,000	304	3.9355	0.5391	9.3991	2.8747	4.9963
> 5,000	209	1.8913	0.1501	2.1701	1.5954	2.1873
COMBINED	513	3.1027	0.3280	7.4300	2.4582	3.7472
diff		2.0442	0.6621		0.7433	3.3450

diff = mean(< 5,000) mean(> 5,000) t=3.0872
H0: diff = 0 Degrees of freedom= 511

H0: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.9998 Pr(T > t) = 0.0021 Pr(T > t) = 0.0011

Note. Statistical differences (p<.05).

Table C. PERFORMANCE

<i>Group</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. err.</i>	<i>Std. dev.</i>	<i>95% Conf Int</i>	
< 5,000	304	0.3357	0.2743	4.7825	-0.2040	0.8755
> 5,000	209	0.0781	0.0630	0.9101	-0.0460	0.2022
COMBINED	513	0.2308	0.1645	3.7267	-0.0925	0.5540
diff		0.2576	0.3350		-0.4006	0.9157

diff = mean(< 5,000) mean(> 5,000) t=-0.7689
H0: diff = 0 Degrees of freedom= 511
H0: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.7789 Pr(T > t) = 0.4423 Pr(T > t) = 0.2211

Note. No statistical differences (p<.05).

Table D. FINDINGS

<i>Group</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. err.</i>	<i>Std. dev.</i>	<i>95% Conf Int</i>	
< 5,000	304	0.5263	0.0618	1.0775	0.4047	0.6479
> 5,000	209	0.7751	0.0981	1.4183	0.5817	0.9685
COMBINED	513	0.6277	0.0544	1.2326	0.5208	0.7346
diff		-0.2488	0.1103		-0.4655	-0.0321

diff = mean(< 5,000) mean(> 5,000) t=-2.2553
H0: diff = 0 Degrees of freedom= 511
H0: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.0123 Pr(T > t) = 0.0245 Pr(T > t) = 0.9877

Note. Statistical differences (p<.05).

Table E. OPINION

Group	OPINION		Total
	UNQUAL- IFIED	OTHER-THAN- UNQUALIFIED	
< 5,000	302	2	304
	0	0.1	0.0
	99.34	0.66	100
> 5,000	208	1	209
	0	0.0	0.0
	99.52	0.48	100
Total	510	3	513
	0	0.1	0.10
	99.42	0.58	100

Pearson chi2(1) = .0686

Pr = .793

Note. No Statistical differences.

Populations Greater Than 5,000 versus Populations Smaller Than 5,000 Two Mean

Comparison: Accountability

Table F. DEBT

Group	Obs.	Mean	Std. err.	Std. dev.	95% Conf Int	
< 5,000	304	2546104	707833	1.23	1153214	3938994
> 5,000	209	1.36	5078529	7.34	3609544.0	2.36
COMBINED	513	7058315	2121856	4.81	2889700	1.12
diff		-1.11	4294772		-1.95	-2637845.00

diff = mean(< 5,000)

mean(> 5,000)

t = -2.5788

H0: diff = 0

Degrees of freedom = 511

H0: diff < 0

Ha: diff != 0

Ha: diff > 0

Pr(T < t) = 0.0051

Pr(T > t) = 0.0102

Pr(T > t) = 0.9949

Note. Statistical differences (p < .05).

Table G. SINGLEAUDIT

SINGLEAUDIT			
Group	NOT		Total
	REQUIRED	REQUIRED	
< 5,000	249	301	304
	26.3	0	64.6
> 5,000	55	202	209
	38.3	0	94.0
Total	304	503	513
	64.6	0.1	158.5

Pearson chi2(1) = 158.5417

Pr = 0.000

Note. Statistical differences (p<.05).

Populations Greater Than 5,000 versus Populations Smaller Than 5,000 Two Mean

Comparison: Audit Environment

Table H. FUNDS

FUNDS			
Group	Two or		Total
	Less	Three or More	
< 5,000	280	24	304
	6.5	24.5	31
	92.1	7.9	100.0
> 5,000	126	83	209
	9	36	45
	60.3	39.7	100.0
Total	400	107	513
	15.8	60.1	76.00

Pearson chi2(1) = 75.9588

Pr = 0.000

Note. Statistical differences (p<.05)

Table I. DISTANCE

<i>Group</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. err.</i>	<i>Std. dev.</i>	<i>95% Conf Int</i>	
< 5,000	304	56.5441	3.4639	60.3954	49.7277	63.3605
> 5,000	209	98.4134	5.6672	81.9298	87.2409	109.5859
COMBINED	513	73.6020	3.2172	72.8673	67.2815	79.9224
diff		-41.8693	6.2868		-54.2205	-29.5181

diff = mean(< 5,000) mean(> 5,000) Degrees of freedom= 511 t=-6.6598
H0: diff = 0

H0: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.0000 Pr(T > t) = 0.0000 Pr(T > t) = 1.0000

Note. Statistical differences (p<.05).

Table J. ENGAGEMENTS

<i>Group</i>	ENGAGEMENTS		<i>Total</i>
	<i>ONE CLIENT</i>	<i>TWO OR MORE CLIENTS</i>	
< 5,000	3	301	304
	1.4	0	1.5
	1.0	99.0	100.0
> 5,000	7	202	209
	2.1	0	2.1
	3.4	96.7	100.0
Total	10	503	513
	3.5	0.1	3.6
	1.95	98.05	100

Pearson chi2(1) = 3.6165
Pr = 0.057

Note. No statistical differences.

Appendix D

Table A. Variance Inflation Factor

Variable	VIF	1/VIF
DEBTTOEQUITY	3.18	0.3143
POSITION	1.39	0.7187
PERFORMANCE	1.01	0.9909
FINDINGS	1.06	0.9459
OPINION	1.01	0.7398
DEBT	2.60	0.9943
FUNDS	1.20	0.3848
DISTANCE	1.03	0.9674
ENGAGEMENTS	1	0.9958
MEAN VIF	1.48	

Table B. Logistic Regression Assumption #1

LATE	Freq.	Percent	Cum.
ON-			
TIME	129	25.15	25.15
LATE	384	74.85	100

Table C. Logistic Regression Assumption #2 List of LGU's Included

Aberdeen	Craven County	Hoffman	Mooreboro	Southport
Alamance	Creedmoor	Hoke County	Mooreville	Sparta
Alamance County	Creswell	Holden Beach	Morehead City	Spencer
Albemarle	Crossnore	Holly Ridge	Morganton	Spindale
Alexander County	Cumberland County	Holly Springs	Mount Airy	Spruce Pine
Alleghany County	Currituck County	Hope Mills	Mount Gilead	Staley
Alliance	Dallas	Hot Springs	Mount Holly	Stallings
Andrews	Danbury	Hudson	Mount Olive	Stanfield
Angier	Dare County	Huntersville	Mount Pleasant	Stanley
Apex	Davidson County	Indian Trail	Murfreesboro	Stanly County
Arapahoe	Davie County	Iredell County	Murphy	Stantonsburg
Archdale	Denton	Jackson County	Nags Head	Star
Archer Lodge	Dillsboro	Jacksonville	Nash County	Statesville
Ashe County	Dobbins Heights	Jamestown	Nashville	Stedman
Asheboro	Dobson	Jamesville	Navassa	Stokes County
Asheville	Dortches	Jefferson	New Bern	Stokesdale
Atkinson	Drexel	Johnston County	New Hanover County	Stoneville
Atlantic Beach	Dublin	Jones County	New London	Stonewall
Autryville	Duck	Kannapolis	Norman	Stovall
Avery County	Duplin County	Kenansville	North Topsail Beach	Sugar Mountain
Ayden	Durham	Kernersville	North Wilkesboro	Summerfield
Bald Head Island	Durham County	Kill Devil Hills	Norwood	Sunset Beach
Banner Elk	Earl	King	Oak Island	Surf City
Bayboro	East Bend	Kings Mountain	Oak Ridge	Swain County
Bear Grass	East Spencer	Kinston	Oakboro	Swansboro

Beaufort County	Eastover	Kittrell	Ocean Isle Beach	Swepsonville
Beech Mountain	Eden	Kitty Hawk	Old Fort	Tabor City
Belville	Edenton	Knightdale	Onslow County	Tar Heel
Belwood	Elizabethtown	Kure Beach	Orange County	Tarboro
Benson	Elk Park	La Grange	Orrum	Taylorsville
Bermuda Run	Elkin	Lake Lure	Ossipee	Taylortown
Bertie County	Ellenboro	Lake Park	Oxford	Teachey
Bessemer City	Ellerbe	Lake Santeetlah	Pamlico County	Thomasville
Bethania	Elon	Lake Waccamaw	Parkton	Tobaccoville
Bladen County	Emerald Isle	Landis	Pasquotank County	Topsail Beach
Bladenboro	Enfield	Lansing	Patterson Springs	Transylvania County
Blowing Rock	Erwin	Lasker	Peachland	Trent Woods
Boardman	Fair Bluff	Lattimore	Peletier	Trenton
Bogue	Fairmont	Laurel Park	Pembroke	Trinity
Boiling Springs	Faison	Laurinburg	Perquimans County	Troutman
Bolivia	Faith	Lawndale	Person County	Troy
Bolton	Falcon	Lee County	Pine Knoll Shores	Turkey
Boone	Falkland	Leggett	Pine Level	Tyrrell County
Boonville	Fallston	Leland	Pinebluff	Union County
Bostic	Farmville	Lenoir	Pinehurst	Unionville
Brevard	Fayetteville	Lenoir County	Pineville	Valdese
Bridgeton	Flat Rock	Lewisville	Pitt County	Vance County
Broadway	Fletcher	Lexington	Pittsboro	Vandemere
Brookford	Fontana Dam	Lilesville	Pleasant Garden	Varnamtown
Brunswick	Forest City	Lincoln County	Plymouth	Waco

Brunswick County	Forest Hills	Lincolnton	Polk County	Wade
Bryson City	Forsyth County	Linden	Polkton	Wadesboro
Buncombe County	Fountain	Locust	Polkville	Wagram
Bunn	Four Oaks	Long View	Pollocksville	Wake County
Burgaw	Foxfire Village	Love Valley	Princeton	Wake Forest
Burke County	Franklin	Lumber Bridge	Proctorville	Wallace
Burlington	Franklin County	MacClesfield	Raeford	Wallburg
Burnsville	Fuquay-Varina	Macon	Raleigh	Walnut Cove
Butner	Gamewell	Macon County	Randleman	Walnut Creek
Cabarrus County	Garland	Madison	Randolph County	Walstonburg
Calabash	Garner	Maggie Valley	Ranlo	Warren County
Caldwell County	Gaston County	Magnolia	Raynham	Warsaw
Calypso	Gastonia	Maiden	Red Oak	Washington
Camden County	Gates County	Manteo	Red Springs	Washington County
Cape Carteret	Gibson	Marietta	Reidsville	Washington Park
Carolina Beach	Glen Alpine	Marion	Rennert	Watauga County
Carolina Shores	Godwin	Marshall	Rhodhiss	Watha
Carrboro	Goldston	Marshville	Richfield	Waxhaw
Carteret County	Graham	Martin County	Richlands	Wayne County
Carthage	Graham County	Marvin	River Bend	Waynesville
Cary	Grandfather Village	Matthews	Robbinsville	Weaverville
Casar	Granite Falls	Maxton	Robeson County	Webster
Castalia	Granite Quarry	Mayodan	Rockingham	Wendell
Caswell Beach	Grantsboro	McAdenville	Rockingham County	Wentworth
Catawba	Granville County	McDonald	Rockwell	Wesley Chapel

Catawba County	Greene County	McDowell County	Rocky Mount	West Jefferson
Cedar Point	Greenevers	McFarlan	Rolesville	Whispering Pines
Cedar Rock	Greensboro	Mebane	Rose Hill	Whiteville
Cerro Gordo	Greenville	Mecklenburg County	Roseboro	Whitsett
Chadbourn	Grifton	Mesic	Rowan County	Wilkes County
Chapel Hill	Grover	Middleburg	Rowland	Williamston
Charlotte	Guilford County	Midland	Roxobel	Wilmington
Chatham County	Halifax	Midway	Rural Hall	Wilson
Cherryville	Halifax County	Mills River	Ruth	Wilson County
Chowan County	Hamlet	Milton	Rutherford College	Wilson's Mills
Claremont	Harmony	Mineral Springs	Rutherford County	Windsor
Clarkton	Harrells	Minnesott Beach	Saint Helena	Winston-Salem
Clay County	Harrellsville	Mint Hill	Saint James	Winterville
Clayton	Harrisburg	Mitchell County	Saint Pauls	Woodfin
Clemmons	Hassell	Mocksville	Salemburg	Woodland
Cleveland	Havelock	Momeyer	Salisbury	Wrightsville Beach
Cleveland County	Haw River	Monroe	Saluda	Yadkin County
Clinton	Hayesville	Montgomery County	Sampson County	Yadkinville
Clyde	Haywood County	Moore County	Sandyfield	Yancey County
Coats	Henderson	Sanford	Seven Springs	Yanceyville
Cofield	Henderson County	Saratoga	Severn	Youngsville
Como	Hendersonville	Sawmills	Shallotte	Zebulon
Concord	Hertford County	Scotland County	Shelby	
Connelly Springs	Hickory	Scotland Neck	Simpson	
Conover	High Point	Seaboard	Sims	

Conway	High Shoals	Seagrove	Smithfield	
Cooleemee	Highlands	Sedalia	Snow Hill	
Cornelius	Hildebran	Selma	Southern Pines	
Cramerton	Hillsborough	Seven Devils	Southern Shores	

Table D. Logistic Regression Assumption #3 Correlation

	DEBT/EQ	POSITION	PERFORM	FINDINGS	DEBT	DISTANCE
DEBT/EQ	1					
POSITION	0.32	1				
PERFORM ANCE	0.04	-0.02	1.00			
FINDINGS	0.07	-0.08	0.00	1		
DEBT	0.7	-0.01	0.01	0.09	1	
DISTANCE	0.13	0.01	0.03	0.02	0.06	1

Table E. Logistic Regression Assumption # 3 Spearman Test

	OPINION	SINGLEAUDIT	ENGAGEMENTS
OPINION	1.00		
SINGLEAUDIT	-0.06	1.00	
ENGAGEMENTS	0.01	0.00	1.00
