The Impact of Budget Variance, Fiscal Stress, Political Turnover, and Employment Sector on Compliance Reporting Decisions.

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The impact of budget variance, fiscal stress, political turnover, and employment sector on compliance reporting decisions

Kidwell, Linda Achey, Ph.D.
The Louisiana State University and Agricultural and Mechanical Col., 1993
THE IMPACT OF BUDGET VARIANCE, FISCAL STRESS, POLITICAL TURNOVER, AND EMPLOYMENT SECTOR ON COMPLIANCE REPORTING DECISIONS

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy

in

The Department of Accounting

by

Linda Achey Kidwell
B.A., Smith College, 1984
December, 1993
DEDICATION

Any dissertation is a labor of love, a test of endurance, and at times an object of loathing. There are many people who helped me through the ups and downs, but I'd like to dedicate this work to those who gave me special inspiration when I needed encouragement most.

First, I'd like to acknowledge the quiet, but revolutionary, feminist Sophia Smith. In the 1870s she put an inheritance from her brother to a use he would have abhorred: starting a college for women. Smith College has had an immeasurable impact on thousands of women eager to feed their hunger for knowledge. As a student there, I developed my talents and gained the confidence in my abilities that I would need to see me through the dissertation process.

I would also like to remember my brother Jamie, who died at the age of 22 (a few years before I started graduate school). He was my best friend, and I miss him terribly. Thinking of him helped me keep things in perspective, in an environment where perspective could be pretty hard to find. I know he would be proud of me.

What can I say to give adequate credit to my parents, John and Virginia Achey? Education was always an important part of our family life, and my parents gave encouragement at every turn. They rejoice in their children's achievements and cry in their times of sorrow. They always
seem to know what I need before I do, and they give it without hesitation. Mom and Dad, thank you.

Finally I'd like to dedicate this dissertation to my husband Roland. He knows better than anyone how important he was in this process. He pushed me when I dawdled, pulled me out when I got stuck in the bog, helped me recover when I fell, patted me on the back when things progressed, edited my manuscript, and brought me roses when it was all over. He always makes me happy, and he lets me know I do the same. Thank you sweetheart. I love you.
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ABSTRACT

The Governmental Accounting Standards Board (GASB) established that financial reports of governmental entities should assist users in assessing accountability of politicians and bureaucracies (GASB 1987, 100.103). Auditing standards promulgated for the governmental environment similarly emphasize administrative accountability to the public.

Government Auditing Standards (GAS) require auditors to determine whether a governmental entity has complied with all applicable laws and regulations. If noncompliance is found to have a material effect on the financial statements, governmental auditors are required to report it. This study examined what level of reporting auditors use and what factors contribute to a lack of consensus in reporting decisions.

Specifically, auditor reporting decisions concerning municipal compliance with the Louisiana Local Government Budget Act were investigated. The Budget Act requires municipalities to amend their budgets if actual expenditures will exceed the budget by more than five percent. Auditors experienced in governmental auditing participated in an experiment, involving a small municipality that had contracted for an audit in accordance
with GAS. Subjects were asked where they would report noncompliance with the Budget Act.

Four independent variables were hypothesized to have an impact on reporting decisions: unfavorable budget variance, fiscal stress, political turnover, and employment sector of the auditor. Data were analyzed with chi-square tests, ordinal probit analysis, and correlation statistics.

Budget variance and employment sector of the auditor were found to affect reporting decisions. Neither fiscal stress nor political turnover was significant, however. Auditors working for the Legislative Auditor of the State of Louisiana reported all instances of noncompliance at the maximum disclosure level, the Compliance Report. Auditors employed in the private sector, however, apparently judged the materiality of noncompliance. When budget variance was sixteen percent, private sector auditors, like legislative auditors, reported noncompliance in the compliance report. However, when budget variance was seven percent, private practitioners chose lower levels of disclosure, such as footnotes or a management letter. Finally, legislative auditors demonstrated higher consensus than private practitioners.
CHAPTER 1
INTRODUCTION

Considerable research has investigated auditors' reporting decisions in the private sector (e.g. Holstrum & Messier, 1982; Messier, 1983; Krogstad, Ettenson, & Shanteau, 1984; and Chewning, Pany, & Wheeler, 1989), concentrating, for the most part, on materiality thresholds and auditor-client conflict. Private sector research may not be directly comparable to the public sector, however, as reporting decisions in governmental auditing differ from reporting decisions in private sector auditing for a variety of reasons. Icerman and Hillison (1989) pointed out that governmental auditors have stewardship responsibilities beyond those to investors, such as bondholders; they also have responsibilities to involuntary resource providers who are not constituents and to non-providers who receive government services.

Financial reports provide vital evidence in demonstrating governmental accountability. The Governmental Accounting Standards Board (GASB) prescribes that financial reports should enable governmental agencies or political subdivisions to demonstrate public accountability and should assist users in assessing the level of administrative accountability (GASB, 1987, 100.103).
The additional stewardship responsibilities of the governmental auditor are reflected in the standards for governmental audits. Standards for a financial audit of a governmental agency fall into three categories: Generally Accepted Auditing Standards (GAAS), Government Auditing Standards (GAS), and Single Audits. Fieldwork standards among the three categories are essentially the same; the differences are found primarily in the reporting requirements. Under GAAS, the only report required is an opinion on the financial statements. GAS audits encompass GAAS reporting requirements, but supplemental reports concerning internal controls and compliance with laws and regulations are also required. Finally, Single Audits require an additional schedule of findings and questioned costs and, if the entity receives federal financial assistance that qualifies as a major program, an opinion on compliance.\textsuperscript{1} The increased reporting required by each successive set of standards is illustrated in Figure 1.1.

In the state of Louisiana, municipalities are required by law to submit audited financial statements to the Office of the Legislative Auditor on an annual or biannual basis, depending on the size of their budgets. These financial

\textsuperscript{1} The Single Audit Act outlines a sliding scale which determines whether federal assistance constitutes a major program. This schedule is contained in the Glossary of Statement on Auditing Standards 68: Compliance Auditing Applicable to Governmental Entities and Other Recipients of Governmental Financial Assistance (AICPA, 1992).
SINGLE AUDIT

Reports Issued

Major Programs: Opinion on compliance, schedule of findings and questioned costs, and report on compliance with general requirements

Minor Programs: Statement of positive assurance about nonmajor federal financial assistance program transactions tested and negative assurance about transactions not tested; schedule of findings and questioned costs

GOVERNMENT AUDITING STANDARDS

Reports Issued

Statement of positive assurance about transactions tested and negative assurance about transactions not tested; report of material instances of noncompliance found

GENERALLY ACCEPTED AUDITING STANDARDS

Report Issued

Opinion on financial statements

Figure 1.1
Reports Required under Various Auditing Standards

(Adapted from American Institute of Certified Public Accountants, Statement on Auditing Standards No. 63: Compliance Auditing Applicable to Governmental Entities and Other Recipients of Governmental Financial Assistance. New York: American Institute of Certified Public Accountants, 1989.)
audits are to be conducted under GAS unless they are subject to Single Audit guidelines. Because few municipalities in the state receive sufficient federal funds to fall under the Single Audit Act, the majority engage auditors for GAS audits.

Government Auditing Standards require auditors to determine whether the entity has complied with laws and regulations. If an auditor determines that noncompliance has occurred, he or she must consider which of the available reporting options is appropriate. This study investigates auditor reporting decisions concerning compliance with the Louisiana Local Government Budget Act (hereafter the Budget Act), in performing municipal audits under GAS. Because the budget is a fundamental part of any government's financial reporting, it provides a broadly relevant setting for studying auditors' compliance reporting decisions.

According to GAS, auditors must report noncompliance with laws and regulations if noncompliance has a material effect on the financial statements. The materiality of noncompliance with the Budget Act is not clear cut; although the municipality may be sued for injunctive relief

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2 Generally accepted accounting principles for governmental entities require that "the minimum budget basis presentation within the general purpose financial statements is the aggregation of the appropriated budgets [for revenues and expenditures], as amended, compared to related actuals." (Governmental Accounting Standards Board, 1987, 2400.102)
(LSA-RS 39:1314), it is not liable for refund or loss of state grants or other aid received if it violates the Budget Act. Over-spending is, technically, an illegal act; the auditor may consider it significant and subject to some level of disclosure (AICPA, 1988). It may also be appropriate to report violations of the budget because users of the financial statements expect certain types of findings to be reported, and public perceptions are clearly involved in budget related activity.

This study explores the reporting practices of governmental auditors. Specifically, the reporting practices of different groups of governmental auditors faced with noncompliance with the Budget Act in varying contexts are examined. The degree of budget variance, fiscal stress, political turnover, and employment sector of the auditor are hypothesized to impact compliance reporting decisions. In the following section, background information concerning GAS and auditor independence is discussed, followed by development of this study.

BACKGROUND OF THE PROBLEM

Government Auditing Standards

Because most of the resources used to pay for governmental operating activities are provided involuntarily through various taxes, a need to assure accountability in administering those resources exists.
Hence, government agencies and political subdivisions must be audited for compliance with laws and regulations regarding expenditures and administration of government programs. SAS No. 68, Compliance Auditing Applicable to Governmental Entities and Other Recipients of Governmental Financial Assistance, which is concerned with GAAS, GAS, and Single Audits, requires that,

the auditor should obtain an understanding of the possible effects on financial statements of laws and regulations that are generally recognized by auditors to have a direct and material effect on the determination of amounts in a governmental entity's financial statements (AICPA, 1992, par. 11).

Auditors engaged to perform an audit in accordance with GAS, however, have additional responsibilities beyond those in a GAAS audit. The U. S. General Accounting Office (GAO) states that primary among those responsibilities is the requirement that the auditor prepare a report on compliance with laws and regulations (GAO, 1988, 5-2, par. 5). The statement on compliance is considered significant because government organizations are

---

3 GAS are outlined in the Standards for Audits of Governmental Organizations, Programs, Activities, and Functions, promulgated by the U.S. General Accounting Office. In practice, GAS are often referred to as Generally Accepted Government Auditing Standards (GAGAS) or the "Yellow Book." The "Yellow Book" incorporates standards for financial audits and performance audits, but for the purposes of this study, GAS will refer only to the standards for financial audits.
created by law and generally must follow more specific rules and regulations than private entities (GAO, 1985).

In a GAS audit, the report on compliance may be included within the opinion on the financial statements or in a separate report. This report must contain positive assurance on those items that were tested for compliance as well as negative assurance on those items not tested.

All instances of noncompliance with laws and regulations that are material to the groups of accounts being audited should be reported. Material noncompliance also includes instances that individually are not material but when aggregated may have a material effect. If the compilation of immaterial items of noncompliance is still immaterial, the items may be disclosed separately in written or oral communication to the management of the entity and should not affect the audit opinion (GAO, 1988, 5-2 - 5-3, pars. 5 - 8).

Materiality is an inherently subjective judgment for the auditor. This may be especially true when an auditor is making a joint judgment of how noncompliance is translated into a dollar impact and whether that impact is material to the financial statements. This subjectivity, as well as the increased disclosure options in a GAS audit, may lead to diverse reporting practices.

Nondisclosure of noncompliance when present, therefore, may signal a number of underlying conditions.
The auditor may not have detected the noncompliance. If the noncompliance was detected but not reported, the auditor may have either determined that it was not material or may have chosen to communicate privately to the client, via oral communication or management letter. In any of these cases, if an outside observer believes that public disclosure was warranted, the auditor's performance may be questioned.

Reports on Governmental Audit Quality

In response to growing public concern in the early 1980s over waste and mismanagement of federal funds, the U. S. Congress directed more attention to compliance issues within grantee agencies. In July, 1984, at the request of Congress, the GAO reviewed audits for 46 regional offices of seven Inspectors General. These audits covered agencies administering 95 percent of all domestic federal assistance.

For the purposes of the GAO study, audit quality was defined as "compliance with professional standards set out for the particular type of audit considered" (GAO, 1985, 8). Audits were selected for the GAO study based on prior regional inspectors' general experience with the audit firms, results of routine desk reviews performed for each audit, and whether or not the audit firm had previously been contracted for agency audits.
The results of these studies revealed that, in the judgment of the GAO, 34 percent of the audits were not performed in compliance with professional standards. Problems concerning failure to report noncompliance were found in 25 percent of the reports reviewed, and one in five reviewed revealed a failure to perform a majority of the required audit work in a major segment of the audit. The reviewers found unexplained inaccuracies, missing schedules, inadequate descriptions of the audit scope, and insufficient documentation. The two predominant problems were related to compliance and internal control. Of the sample of audits reviewed, 12.5 percent had problems identifying noncompliance with laws and regulations. In addition, insufficient evidence was a frequent problem, especially evidence associated with compliance issues (GAO, 1985). It is important to note, however, that audits for the GAO quality review studies were not selected at random, so the proportion of audits of poor quality may have been overstated.

The American Institute of Certified Public Accountants (AICPA) responded to the findings of the GAO regarding audit quality by establishing a task force to study the problem. In 1987, it released the Report of the Task Force on the Quality of Audits of Governmental Units. This report (dubbed "The Five E’s") contained recommendations to improve public sector audit quality. The five categories
of recommendations focused on education, engagement of auditors, evaluation of audit quality, enforcement of standards, and exchange of information (AICPA, 1987). In addition, the AICPA increased the emphasis on governmental accounting and auditing in the Uniform CPA Examination. Governmental auditing has been added to the content specification for the auditing section of the exam, and in the new format to be used beginning in 1994, governmental accounting will constitute 30 percent of the financial accounting and reporting section.

Compliance reporting has been cited as a problem area by both the AICPA and the GAO. However, the AICPA recommendations and the accounting literature provide neither insight nor the results of research into the manner in which compliance reporting decisions are made. The AICPA task force recommendations provided general solutions to improve governmental audit quality, but they did not specifically address compliance reporting practices or provide guidance for materiality judgments. Further, research into reporting decisions has focused on the private sector, where compliance reports are absent, and research in governmental accounting and auditing has largely ignored the compliance issue altogether.
AUDITOR INDEPENDENCE

Reporting decisions are dependent on two sometimes conflicting goals of the auditor: 1) maintaining auditor independence and professional integrity, and 2) retaining the client (Goldman & Bariev, 1974). If a municipality or other auditee is in compliance with all applicable laws and regulations, the auditor can meet both these goals simultaneously by issuing an unqualified opinion and a clean compliance report.\footnote{For the purposes of this study, it is assumed that the financial account balances have been found to be presented fairly.} However, if the auditee is not in compliance with applicable laws, and the auditee resists disclosure, conflict may result. Questions of disclosure in situations of conflict have been considered from the perspective of auditor independence in prior audit research (e.g., Shockley, 1981; Knapp, 1985, 1987).

Auditor independence is considered the foundation of the auditing profession (Littleton, 1965). Independence has to do with the individual auditor maintaining a proper attitude in three aspects of the audit: planning, performance of procedures, and preparation of the report (Mautz and Sharaf, 1961). Elaborating on independence in reporting, Mautz and Sharaf (1961) stated that the auditor must avoid "excluding significant matters from the formal report in favor of their inclusion in an informal report of any kind" (207).
DeAngelo (1981b) said that perfect auditor independence occurs when the conditional probability that the auditor will report a discovered breach if a breach is found is equal to one. She added that, "the greater the incentive for the auditor to tell the truth, the greater the value of the auditor's opinion" (116). The competitive nature of the auditing business has the potential to lead to less than perfect auditor independence. Goldman and Barlev (1974, 707) pointed out that "the threat to independence is built into the structure of this professional role and that pressures not to perform according to professional standards are constantly created."

Competition among audit firms for a given client sometimes leads audit firms to bid low, even below cost, in the initial engagement. In subsequent engagements by the same client, the audit firm will earn economic quasi-rents due to technological advantages the incumbent auditor enjoys and costs to the client of changing auditors (DeAngelo, 1981b). Termination of the auditor-client relationship is costly to both parties, in that the auditor loses quasi-rents and the client bears start-up costs associated with a new auditor. Therefore, significant incentives exist for both parties to maintain the professional relationship. These incentives make the auditor more susceptible to client pressure not to disclose
a breach; conversely, the lower costs involved for the client if the incumbent auditor is retained may make the client less inclined to terminate the relationship over a disclosure disagreement (DeAngelo, 1981b).

Compromises of audit quality for the purposes of client retention also pose potential costs to the auditor. Should the reporting decision be questioned, the professional integrity of the auditor may be affected by sanctions, the auditor may suffer the loss of reputation and clientele, and legal liabilities may result (Shockley, 1982). Therefore, auditors with a large client base are likely to lose more by failing to report a breach than by losing a particular series of client-specific quasi-rents (DeAngelo, 1981c).

A substantial portion of municipal audits, however, are conducted by small audit firms. For such firms, the fee from one governmental client could be a large proportion of revenues, giving rise to the possibility that the loss of a particular client could have a significant impact on the audit firm. Municipalities are also not necessarily subject to the market pressures that demand high quality audits. Governmental audits have traditionally posed a lower business risk for audit firms; litigation is less likely and sanctions have been less common until recently (GAO, 1986; AICPA, 1987).
In recent years, however, peer review and quality assurance programs have increased the probability that disclosure decisions will come under scrutiny. Every audited set of financial statements submitted to the Office of the Legislative Auditor of Louisiana receives a quality assurance review. However, compliance reporting decisions concerning significant but non-material items, such as violations of the Budget Act, are rarely scrutinized (Austin, personal communication, 1991). A sample of governmental audits also undergoes a full desk review by the Society of Louisiana Certified Public Accountants, where more attention is given to reporting treatment of such items.

The Legislative Auditor must approve all municipal audit engagements, thus repeated findings of questionable reporting decisions may impair an auditor’s ability to maintain a governmental audit practice. Although potential legal liability in a municipal audit is fairly low and minimizes business risk for the auditor, the possibility of being prohibited from conducting future governmental engagements increases the business risk in making questionable reporting decisions strictly to keep a specific client. Further, DeAngelo (1981a) noted that if an auditor gains industry-specific knowledge in the course of an audit, then that knowledge carries over to other clients in the same industry, mitigating the losses
associated with losing one specific client. The opposing forces of small firm size and industry specialization, as well as low litigation risk and increasing scrutiny, make it unclear how susceptible municipal auditors may be to pressures to underreport noncompliance.

**COMPLIANCE REPORTING OPTIONS**

Upon discovery of a governmental client's failure to comply with applicable laws and regulations, the auditor must consider some level of disclosure. Several options exist for reporting noncompliance, ranging from oral communication to the compliance report.

First, for noncompliance considered nonmaterial, reporting standards for financial audits state that, "nonmaterial instances of noncompliance need not be disclosed in the compliance report but should be reported in a separate communication to the audited entity, preferably in writing" (GAO, 1988, 5-3, par 8). This standard provides the auditor with a choice of discussing noncompliance orally with the auditee or addressing it in a management letter. A management letter could reasonably be considered to be higher level reporting than oral communication, however, especially in the governmental context, because many written documents that might remain
confidential in the private sector become part of the public record.5

The next higher level of reporting available to the auditor is disclosure of noncompliance in the footnotes to the financial statements. Although GAS do not specify the role of footnotes in noncompliance reporting, footnotes have traditionally been used to disclose items not significant enough to include directly in the financial statements or the auditor’s report but too significant to omit from the financial statements altogether. Footnote disclosure can be considered a higher level of reporting than the management letter because they are part of the publicly disseminated financial statements. Conversely, the footnotes can be considered a lower level of disclosure than the reports, as the reports tend to highlight instances of noncompliance.

Finally, if the auditor deems noncompliance to be material relative to the financial statements, the noncompliance should be reported in the compliance report.

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5 When a municipality in Louisiana engages an independent auditor, the Legislative Auditor must approve the engagement. The standard letter sent by the Legislative Auditor contains the stipulation that copies of all management letters are to be sent to the Legislative Auditor along with the annual report. Therefore, although the management letter is not publicly disseminated with the annual report, it is part of the public record available to interested parties requesting information from the Legislative Auditor.
The auditors should prepare a written report on their tests of compliance with applicable laws and regulations. This report, which may be included in either the report on the financial audit or a separate report, should include all material instances of noncompliance. (GAO, 1988, 5-2; emphasis added).

Auditing standards do not specify a disclosure hierarchy between the compliance report and the opinion on the financial statements. By permitting the report on noncompliance to be either a part of the opinion or a separate document, the standards imply that the opinion and the compliance report are equal in stature. Whether noncompliance is reported in the footnotes, the compliance report, or the opinion, it is made part of the report readily available to third parties, making each a form of public disclosure.

It is possible that audit clients perceive a difference in the level of reporting if noncompliance is disclosed in the compliance report rather than the opinion. If so, the auditor may be able to satisfy a client in a conflict situation by reporting noncompliance in the

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6 This interpretation was supported in a conversation with William Anderson, Jr., Project Manager at the GAO. According to Mr. Anderson, in the opinion of the GAO, the opinion on the financial statements, the compliance report, and the report on internal controls are equal and integral parts of the auditor's report.
compliance report rather than the opinion because the opinion is likely to be considered the highest level of disclosure. This is strictly conjecture, however, and therefore no hierarchical differentiation is assumed for the purposes of this study.

The Louisiana Local Government Budget Act

Any municipality is subject to numerous federal, state, and local laws and regulations that may affect the financial statements. In the state of Louisiana, one law applicable to each municipality is the Louisiana Local Government Budget Act (LSA-RS 39:1301-1314). For local governments, the budget is perhaps the most significant document, in that it drives government activities and provides a standard for accountability (Ives, 1985). Therefore, because this law applies to each municipality, and the budget is central to the accounting process in a governmental entity, this study investigates auditors' compliance reporting decisions involving municipal compliance with the Budget Act.

The Budget Act requires each political subdivision in Louisiana to adopt an annual budget before the beginning of the fiscal year. When there is a change in operations during the fiscal year such that public expenditures will exceed the original budget by more than five percent, the Budget Act requires that the budget be amended. Exceeding
the budget is fairly common. Baron (1989) found that, among a sample of towns in New Mexico, 34 percent exceeded the budget. Of a sample of 100 municipalities in Louisiana studied in the development of this project, 68 exceeded the budget for expenditures, 40 by five percent or more.

Because Generally Accepted Accounting Principles (GAAP) require the minimum budget presentation for governmental entities to include comparisons of the appropriated budgets to related actual revenues and expenditures (GASB, 1987, 2400.103), the dollar variance from the budget will be disclosed in audited financial statements. However, if the budget for expenditures, as amended, is exceeded by more than five percent, the municipality is in violation of the Budget Act. In such cases, the level of disclosure of noncompliance with the law becomes an issue to the auditor.

Depending on the professional judgment of the auditor, the violation may be disclosed publicly in the footnotes, the compliance report, or the audit opinion. However, if the auditor believes that the presentation of the budget variance in the financial statements is sufficient, or if the noncompliance is judged not to be material or

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7 In the state of Louisiana, political subdivisions are required to submit financial reports that conform to Generally Accepted Accounting Principles (GAAP), and that have been audited under GAS on a periodic basis (LSA-RS 24:517). If an entity is a recipient of at least $100,000 of federal financial assistance, however, the audit must be performed under Single Audit guidelines, under federal law.
significant, he or she may decide that private disclosure, such as a management letter or oral communication, would suffice.

RESEARCH QUESTIONS

The more material the auditor considers the violation, the higher order of disclosure it should receive, ceteris paribus (Boatsman & Robertson, 1974). But because there is some flexibility in the reporting decision, compliance may be an area where an auditor is more likely to encounter client pressure to minimize disclosure or to issue an inappropriate report (Nichols & Price, 1976; Goldman & Barlev, 1974). Speaking to this point, Mautz and Sharaf (1961, 218) noted the difficulty of maintaining auditor independence:

Certainly some practitioners are strong enough to resist any temptation and any pressure that may be brought to bear on their independence. And just as certainly other practitioners find real independence a little more than they can manage in the face of considerable pressure and under the conditions of professional practice.

Knapp (1987) found that audit committees will be less likely to support the auditor in a conflict with the client when reporting flexibility exists, and financial statement users perceive that the auditor will be less likely to withstand auditor pressure (Knapp, 1985). The reporting decision in a flexible situation, such as one where
materiality is not clearly defined and where multiple public and private reporting options are available, may therefore reflect the auditor’s balance between the two goals of client retention and maintaining independence.

Independence issues in municipal audits have not been examined in the accounting literature. However, impairment of independence seems more likely to go undetected in municipal audits, where audit firms are small, litigation risk is low, and flexibility is present. Therefore inquiry into reporting decisions in this sector is warranted. The foregoing leads to the following research questions:

1. **What level of reporting noncompliance with the Louisiana Local Government Budget Act is selected by auditors?**

2. **What factors are associated with a lack of consensus in reporting decisions?**

A prominent line of research into audit judgments has analyzed cue usage in the framework of developing linear models of auditors’ decisions. In the area of control and planning judgments, this research has included work by Ashton (1974), Ashton and Brown (1980), and Hamilton and Wright (1982). Holstrum and Messier (1982) provided a review of judgment capturing experiments in materiality. These experiments investigated which controls were considered most important, how risk affected judgments, which cues were influential in making joint
materiality/reporting decisions, and how the role of the auditor affected the opinion given.

Auditor independence has also received considerable attention in the accounting literature. Much of this research has focused on which factors may affect pressures on the auditor to be less than independent, such as routineness of the service provided and benefit to the client (Goldman & Barlev, 1974; Nichols & Price, 1976; and Shockley, 1982) as well as size of the audit firm (DeAngelo, 1981c). Perceptions by others of auditor independence has also been addressed by past research (Shockley, 1982; Knapp, 1985).

Because of the unique nature of governmental audits, many of these issues warrant reconsideration in the public sector environment. The fiduciary responsibility is not comparable between government agencies and business organizations; accountability to the public for resources provided involuntarily is of paramount importance in financial reporting by governments (Governmental Accounting Standards Board, 1987, pars. 100.156 - 158). Furthermore, the emphasis in government is on efficient and effective management of resources and/or equitable distribution of services and provision of public goods rather than profit or maximization of shareholder value (Appleby, 1945; Frederickson, 1971).
Stewardship has historically been the primary function of accounting for municipalities; heterogeneous groups of constituents, such as bondholders, taxpayers, voters, and legislators have different interests in monitoring the safekeeping of assets, accountability of administrators, and compliance with laws, regulations, and legally binding covenants (Copeland & Ingram, 1983). Thus, auditors must consider how these dissimilar groups are best served by financial statements and audit reports under different conditions.

This study examines governmental auditor reporting decisions under different conditions as reflections of the balance struck between maintaining professional integrity (i.e., independence) and retaining clients. While there are many factors that potentially affect the reporting decision, this study considers budget variance, fiscal stress, political turnover, and employment sector.

**RESEARCH METHOD**

The decision of interest in this research is the disclosure decision in auditing for compliance during a financial statement audit. The particular law considered in this study is the Louisiana Local Government Budget Act, with which all municipalities or other political subdivisions of the state must comply. In particular, the Act requires municipalities to adopt a budget amendment if
expenditures exceed the original budget by more than five percent (LSA-RS 39:1309-1310).

The research questions above were investigated in the context of the Budget Act using a quasi-experimental design. The dependent variable in the experiment was the reporting decision (RD). The auditor has the following six options in reporting:

1. No communication
2. Oral communication with management
3. Management letter
4. Footnote disclosure
5. Compliance report
6. Financial statement report (Opinion)

The experimental task consisted of sixteen cases involving a small municipality that had contracted for an audit in accordance with GAS. Subjects were asked where, if anywhere, they would report noncompliance with the Louisiana Local Government Budget Act. The responses of the auditors were analyzed for the impact of four independent variables on compliance reporting decisions made.

The first independent variable was unfavorable budget variance, which was manipulated at three levels. One indicated compliance with the Louisiana Local Government Budget Act, and was primarily included as a validity check to ensure that subjects understood the law. The other two levels indicated different degrees of noncompliance with the Budget Act.
The second independent variable was fiscal stress, and the third independent variable was political turnover. These two factors were expected to reflect pressures that impinge on auditor independence and therefore might lower audit quality and the level of the reporting option chosen.

The fourth independent variable was employment group. Subjects for the experiment were auditors either in the private sector or working for the Legislative Auditor of Louisiana. These two groups had experience in compliance auditing, but it was expected there might be differences in the groups because of the amount of compliance experience and the compliance emphasis in the training and management of the two groups. The auditors' decisions were modelled using descriptive statistics and ordinal probit analysis. Finally, consensus within groups was analyzed using Pearson’s product-moment correlation coefficients.

CONTRIBUTIONS

This research had two primary goals. The first was to investigate reporting decisions regarding compliance in governmental audits, an area that has become of increasing concern to the U. S. government and the AICPA, but which has received little attention in the academic literature. The emphasis on compliance, rather than financial, auditing makes this a unique study.
Secondly, the study investigated the reporting differences between groups of auditors. The compliance-centered training and experience of the staff in the Legislative Audit group was expected to result in different patterns of reporting decisions than would be found in the less specialized private practitioner group.

The remainder of this dissertation is organized as follows: Chapter Two reviews a sample of the literature pertaining to reporting and which variables may affect auditors when making reporting decisions. Chapter Three develops the specific hypotheses to be tested and describes the research method used. Chapter Four provides the results of the experiment, and finally Chapter Five summarizes the findings, the limitations of the study, and avenues for future research.
CHAPTER 2
LITERATURE REVIEW

This study considers the factors that may affect compliance reporting decisions in a governmental context. Although there has been little experimental research in the area of governmental auditing, much of the research in private sector auditing pertains to this study. A directly related area of audit research considers materiality and reporting judgments. Materiality research has focused primarily on financial factors affecting materiality judgments. A subset of that research stream has investigated how materiality judgments are manifested in reporting decisions.

Often in the literature, reporting decisions are also considered reflective of auditor independence. Prior writings on independence have varied from strictly analytical to experimental. The analytical writings have considered factors that may actually impair independence, whereas most empirical research has concentrated on factors that give the appearance of impaired independence. This discrepancy may result from the difficulty researchers have in measuring or capturing independence in the experimental environment.

Finally, an area of considerable activity in accounting research has been the impact of experience or
knowledge on audit judgments. Past research has considered the impact of experience in several accounting issues, and the understanding of expertise is rapidly evolving in the accounting literature. Issues concerning experience as it pertains to the subjects in this study will also be discussed within this review.

Studies of materiality and reporting issues will be discussed first, followed by a brief introduction to the independence literature. Finally, studies concerning experience and knowledge will be discussed. However, because auditor independence and experience affect reporting decisions and judgments of materiality, the three research areas outlined above overlap in the literature.

**MATERIALITY AND REPORTING**

Government Auditing Standards (GAS) require noncompliance to be reported in the compliance report if it is considered to be material to the financial statements. As in Generally Accepted Auditing Standards (GAAS), no specific guidance is provided as to what constitutes material noncompliance. Several studies have investigated auditor judgments of materiality in the private sector, but little research has investigated materiality in the governmental sector. Some of the private sector studies have looked at materiality in isolation, while others have
investigated reporting decisions as evidence of materiality judgments. Both types of studies will be discussed below.

Materiality

The early research in materiality focused primarily on understanding which financial factors auditors used in determining materiality thresholds. Moriarity and Barron (1976) conducted an experiment in which hypothetical cases were constructed manipulating income before tax, earnings trends, and client size in total assets. The audit partner subjects were asked to rank the cases in order of materiality of a change in an asset’s useful life. Income was found to be the dominant factor in assessing materiality. Earnings trend and firm size were not significant for most subjects.

In a review of materiality literature, Holstrum and Messier (1982) found that such results were common to most studies. The effect of adjustments on net income was the predominant factor in all studies they reviewed. In general, they found that an adjustment to net income of less than four percent was almost always immaterial and that adjustments of over ten percent were almost always material. Consensus was lacking in the literature concerning the range between four and ten percent of net income.
Another finding common to most studies reviewed was that materiality thresholds were different for various groups concerned with financial statements. The threshold was lowest among user groups, including investors, loan officers, and regulators. The threshold was highest for financial statement preparers, with the materiality threshold falling somewhere in between for auditors. Holstrum and Messier (1982) concluded that the lack of materiality guidance from standard setting bodies results in confusion and a lack of consensus. This particular gap between the expectations of users, auditors, and preparers may only be remedied by the development of more specific guidelines.

Krogstad, Ettenson, and Shanteau (1984) developed an experiment to test whether qualitative issues were considered as well as financial data in making materiality judgments. Audit partners, seniors, and university students were asked to indicate the relative materiality of a proposed adjustment to the allowance for doubtful accounts. Three financial cues manipulated were the effect on net income, the current ratio, and the earnings per share trend. Five qualitative factors manipulated in the experiment were industry trends, management cooperativeness, internal control structure, the expected users of the statements, and management's accounting policy conservativeness.
As in numerous prior accounting studies, the effect on net income accounted for the majority of variability in auditor judgments; however, no one signal was of predominant importance for the student subjects. None of the qualitative factors was significant when subjects were pooled in an analysis of variance (ANOVA) model, but when participants were modelled individually, qualitative factors were significant. Different subjects responded to different qualitative data, resulting in the insignificance of these factors in the pooled model.

Krogstad, Ettenson, and Shanteau (1984) also measured consensus among the three groups of subjects. In the auditing environment, where "correct" responses are not usually available, consensus has been employed in the literature as a measure of expert judgment (Dirsmith, Covaleski, and McAllister, 1985). The study found no significant difference in consensus between the two practitioner groups, but students demonstrated significantly less consensus than the practitioners. The authors concluded that most of the learning germane to the materiality task occurs by the time an auditor reaches the senior level, but that the task was sufficiently complex to differentiate practitioners from students.
Reporting Decisions

Another line of materiality research looks beyond determining materiality thresholds into the question of how materiality affects reporting decisions. Boatsman and Robertson (1974) requested participants in an experiment to sort cases into three disclosure methods. Based on eight financial and market data items, Certified Public Accountants (CPAs) and security analysts were asked whether the item a) was immaterial and should not be disclosed, b) should be disclosed in the footnotes but not in the body of the statements, or c) should be disclosed as a separate line item.

As in other materiality studies, subjects placed most of the weight of their decisions (73 percent of response variability) on the effect on net income. A dummy variable reflecting whether the item was a gain or loss on non-current assets was also significant, as was a market risk factor. However, a predictive model developed from a linear discriminant function of the decisions performed little better than a model based on a simple materiality cutoff of 4 percent of net income. Finally, the decision models of the CPAs and security analysts were not found to be significantly different from each other.

Stephens (1983) tested whether auditors in an experiment modified opinions based on the materiality of an item as well as the weight of audit evidence. Auditors
evaluated ten cases and made recommendations for the opinion to be given. Materiality was manipulated by a change in revenue recognition leading to a 1 - 2 percent versus 15 - 17 percent change in net income.

Contrary to expectations, subjects recommended modified opinions even when the item was immaterial. The weight of evidence did not affect reporting decisions. In this experiment, the presence of even a small change led to a high frequency of modified opinions, even when generally accepted auditing standards suggest an unqualified opinion would be appropriate. This study did not consider any of the factors which might pressure auditors not to modify opinions however.

Chewning, Pany, and Wheeler (1989) studied actual reporting decisions to investigate materiality judgments in practice. They gathered data on companies listed in the Compustat tapes to determine reporting patterns when companies made a change in accounting principle. In line with past research, modifications of the audit opinion increased as the effect of the change on net income increased. The materiality threshold appeared to be approximately four percent of net income; nearly all opinions were qualified when the change was greater than four percent. Even if the change represented less than a 4 percent change in net income, however, a majority of opinions contained a consistency exception.
Chewning, Pany and Wheeler (1989) also investigated whether reporting decisions differed between discretionary and nondiscretionary accounting changes. Below the four percent materiality threshold, opinions were modified less frequently if the change was nondiscretionary than if the change was made at the option of management. Lastly, then Big 8 firms modified opinions less frequently than other firms, indicating that the Big 8 firms had higher materiality thresholds.

The findings of Chewning, Pany and Wheeler (1989) differ somewhat from most prior research in materiality, although they are similar to those of Stephens (1983). The threshold seemed to be lower than those found in experimental studies. In addition, although auditing standards do not differentiate between discretionary and nondiscretionary changes, auditors apparently did differentiate. This finding does not concur with Knapp's (1985, 1987) experimental studies in auditor independence, which implied that auditors are more susceptible to management pressures not to qualify opinions if technical standards do not specify certain actions.

A common element of the materiality and reporting research discussed above is that it probes decisions in the private sector. Although much of the research can be expected to pertain to governmental auditing, differences between the for-profit and governmental sectors must be
considered. First, the goal of private businesses is generally to generate income and/or shareholder value, and net income can be considered to be reflective of a company's success in achieving its goals. A governmental entity exists not to generate income but to provide services, and there is no measure of success comparable to net income. If net income is the basis for materiality judgments in the private sector, what should be the measuring stick for auditors in governmental engagements?

One possible alternative guide for materiality suggested in the private sector has been the size of the firm. Firm size has received moderate support as a materiality determinant in the literature (Holstrum and Messier, 1982), and where it was supported, total assets have generally served as the proxy for size. The governmental accounting treatment of fixed assets differs substantially from accrual accounting, however. Assets are recorded as expenditures when purchased as well as in a subsidiary ledger of fixed assets which are not depreciated. Therefore total fixed assets in a governmental entity are not equivalent to total assets in a private business, so they may not serve as an analogous guideline for materiality judgments.

The second issue which may differentiate private sector and governmental materiality and reporting issues is that in the past, local governments have been relatively
isolated from the negative consequences of modified audit opinions experienced in the private sector (Lynn and Gaffney, 1990). Many local governments do not need to consider market reactions to qualified audit reports. Even those that have bonds traded on the market may not be damaged by qualified reports, as they are fairly common among governmental entities. Only twenty-one percent of cities with populations over 100,000 surveyed by Giroux (1989) had unqualified opinions on their financial statements.

Lynn and Gaffney (1990) studied auditor perceptions of the messages inherent in qualified audit opinions of governmental entities. Fifty-nine auditors were shown six audit opinions of a hypothetical local government and were asked to rate the similarity of all possible pairs of opinions. Two of the opinions concerned the General Purpose Financial Statements (GPFS), and four concerned Comprehensive Annual Financial Reports (CAFR). The CAFR, which includes individual fund accounts as well as the GPFS, is a more thorough report requiring increased audit scope. Each subject compared unqualified and qualified opinions of GPFSs and CAFRs, a disclaimer on a CAFR, and an adverse opinion on an incomplete CAFR. Subjects were also asked to rate the six audit opinions on nine attributes concerning the role of the auditor and the value of the opinions.
Analysis of subjects' comparisons indicated that auditors perceived a lesser difference between unqualified and qualified opinions than between qualified opinions and disclaimers or adverse opinions. On individual attributes, however, auditors generally rated the qualified opinions more closely to the disclaimers and adverse opinions than to the unqualified opinions. In general, the attribute scores indicated that auditors believed the auditor was more responsible for the content and made a more complete inspection of the statements if the opinion was unqualified than if it was not. The auditors also believed that the opinions were more sufficient for user needs, e.g., that risk associated with the statements was lower and additional information was not needed, if the opinion was unqualified.

In summary, when the auditors in the Lynn and Gaffney (1990) study considered the overall message of opinions, qualified opinions were considered similar to unqualified opinions. However, when the implications of the opinions for the attributes of the accompanying statements were considered, auditors rated qualified opinions as being more similar to disclaimers and adverse opinions than to unqualified opinions.

If auditors are uncertain about how to interpret the messages being sent by different types of audit opinions in a governmental context, it is unclear what the role of
opinions and compliance reports would be if the auditor and client disagreed about disclosure of noncompliance. If auditors perceive qualified opinions to be similar to unqualified opinions, then the auditor may resist pressure to minimize disclosure of noncompliance by convincing the client that the compliance report will not be damaging. On the other hand, if exceptions in the opinion and the additional reports in a governmental audit are viewed to be similar to disclaimers or adverse opinions, then the client may increase pressure and the auditor may be more reluctant to threaten to the relationship by disclosing noncompliance.

When auditors and their clients disagree about disclosure, the auditor must resolve the conflict. The auditor must strike a balance between keeping the client happy, in order to ensure repeat engagements, and maintaining the appropriate level of professional detachment, or independence. A considerable body of accounting research literature addresses this issue; an introduction to auditor independence as it pertains to this study is provided below. Following a discussion of independence issues in general, factors that may have an impact on auditor independence in a municipal environment will be considered, and pertinent research will be discussed.
AUDITOR INDEPENDENCE

Theoretical Framework

One of the fundamental rules of the auditing profession is that auditors must be independent from their clients. Independence has been defined in a number of ways by different writers on the topic. Penno and Watts (1991, 207) provide a definition of auditor independence that encompasses reporting practices specifically:

[An independent auditor is] one whose preferences over financial reporting alternatives are unaffected (both directly and indirectly) by management's preferences.

Mautz and Sharaf (1961) stress the importance of independence in appearance as well as in fact. They contend that the appearance of independence is necessary if auditing is to be accepted as a profession and if audited financial statements are to be valued by the public.

Goldman and Bariev (1974) noted that by the very structure of the auditing profession, where auditors are contracted by firms yet are expected to remain independent of those firms, pressures to compromise independence are inherently present. If an auditor chooses a reporting option that reflects negatively on the client, it is possible that the client will not engage the auditor in the future.
Shockley (1982) analyzed the auditor-client relationship from a power-control theory perspective. He identified two factors which affect the auditor's power vis-à-vis the client. The first factor is the routineness of the services being provided by the auditor. Routineness is directly related to competition for audit services. The more routine the service, the more likely it is that other auditors are available to perform the service. It follows, then, that increased competition for audit services increases the power of the client and threatens to impair auditor independence.

In a series of papers, DeAngelo (1981a, 1981b, 1981c) derived economic models of the auditor-client relationship. Because auditing is a competitive business, audit firms may bid below cost for the initial engagement to attract new clients (DeAngelo, 1981b). Client-specific knowledge carries over to future engagements, however, reducing costs associated with subsequent audits. This enables the auditor to earn a series of economic quasi-rents, providing incentive for the auditor to compromise independence to maintain client relationships.

There are, however, disincentives that counterbalance threats to auditor independence. If an auditor is caught compromising independence, he or she faces loss of reputation and may also face sanctions and even legal liability (DeAngelo, 1981c; Shockley, 1982). If an auditor
is considering compromising independence, the possibility of losing a series of client-specific quasi-rents must be weighed against the possibility of losing other clients due to loss of reputation if discovered.

Several factors may affect the relative weights of these two possibilities. DeAngelo (1981c) demonstrated that firms with a large client base are less likely to be economically vulnerable to client pressures. If the quasi-rents gained from one client make up only a minute percentage of a firm's revenues, that specific stream is likely to have much less impact on the firm than losses that would be suffered if several other clients changed to a more credible auditor. A specific governmental client may represent a material portion of revenues for the small firms that perform most municipal audits in Louisiana, however. In that case, the loss of client-specific revenues could have a big enough impact on the audit firm that the auditor would be more susceptible to client pressures to under-report breaches of laws and regulations.

Regardless of firm size, however, DeAngelo (1981a) notes that industry specialization may mitigate the losses associated with losing a particular client. If an auditor gains industry-specific knowledge in the course of an audit, knowledge carries over to other clients in the same industry. This specialized knowledge reduces the cost of future audits of other clients in that industry. Therefore
the quasi-rents associated with a client are not completely lost if one client relationship is terminated over a disclosure dispute, as long as the auditor has other clients in the same industry.

Governmental auditing can be considered such an industry where specialized knowledge is necessary. The accounting principles differ from those of private sector businesses, and the additional auditing standards require auditors to be familiar with many issues not present in a private sector audit. Therefore even the small firms that perform most municipal audits can carry reduced costs from one client to another, diminishing the dependence on any particular client. This implies that small audit firms that specialize in governmental audits may be no more susceptible to pressures against independence than larger firms. However, small firms that do not specialize may be more likely to succumb to client persuasion.

**Empirical Research**

Several studies have relied on the theoretical framework described above to develop expectations about auditing practices and people's perceptions of auditing practices. Auditor independence is virtually impossible to measure directly, so empirical studies have had to focus instead on perceptions and the appearance of independence. Shockley (1981) surveyed CPAs, financial analysts, and loan
officers to determine which factors were perceived as impairing the independence of auditors. All groups of subjects believed that independence would be threatened if the competition for audit services was high or if the audit firm was engaged for additional non-audit services, such as Management Advisory Services (MAS).

Audit firm size was significant among CPAs in the survey. Auditors from the then Big 8 firms perceived that auditors from small firms were more likely to be impaired than were auditors from large firms. Not surprisingly, however, auditors from small firms did not perceive that audit firm size would impact the independence of the auditors, nor did the financial analysts or loan officers.

Additional empirical studies have investigated which factors other than firm size affect financial statements users' perceptions of auditor independence. One factor which has consistently been shown to affect perceptions is the financial condition of the client. These studies will be discussed below.

**Financial Condition**

Knapp conducted experiments to investigate perceptions of auditor independence. In the first of two studies, Knapp (1985) manipulated four factors, and loan officers were asked to indicate the likelihood that managers would obtain their preferred outcome in a dispute with the
auditor. The subjects in the experiment perceived that auditors would have more difficulty resisting pressure from management if 1) the client was in a strong financial condition, 2) the conflict arose over a non-technical standard, 3) the audit firm also provided MAS to the client, and 4) the market for audit services was competitive.

In a similar study, Knapp (1987) asked audit committee members the likelihood that they would support the auditor in an auditor-client conflict. Two of the manipulated factors, financial condition of the client and technicality of the standard, were the same as in the 1985 study. A third manipulated variable was the size of the audit firm. Finally, the fourth variable was the type of audit committee member, e.g., whether the member was presently a corporate manager or whether he or she was either a retired corporate executive or from a non-business background.

Knapp found that audit committee members would support the auditor in conflicts in general. More specifically, they would be more likely to support the auditor if the client was in poor financial condition, if the dispute concerned a matter dealt with by a technical standard, or if the audit firm was large. Corporate managers were also more likely overall to support the auditors than were other types of audit committee members.
Financial condition of the client was significant in both Knapp studies. He reasoned that if the client were in poor financial condition, the auditor would be more susceptible to legal liability if independence were judged to be impaired, making the auditor more resistant to client pressures. By contrast, if the client was financially healthy, auditors would believe they were less likely to be scrutinized or sued, making them more susceptible to influence by managers.

In addition, both studies indicated that the auditor was in a stronger position if the auditing or accounting standard was technical, i.e., users perceived they would be better able to withstand pressure and audit committee members were more likely to support the auditor. Knapp suggested that if the standard dealing with a disputed issue is not technical, the reporting treatment is more flexible; therefore auditors would be less likely to resist the wishes of managers. Again, this is explained as being due to the increased potential for legal liability of the auditor and the directors. A similar legal liability does not necessarily exist in the public sector, and in cases of violations of the Budget Act there is no comparable concern.

However, the financial condition of the municipality may still influence the auditor's independence. When municipalities experience declining revenues, past research
has shown that citizen groups will mobilize to protect their interests. In a study of municipal governments progressing through cycles of fiscal stress and retrenchment, Levine, Rubin, and Wolohojian (1981) found that interest groups existing during periods of good financial health would strengthen coalitions and increase lobbying activity concerning budget allocations when financial health deteriorated.

If interest groups increase attention to the budget when the municipality is in poor financial condition, the financial statements, and by extension the auditor, will likely be under more scrutiny as well. If the auditor believes this to be true, he or she would be less likely to compromise on disclosure if the governmental client is experiencing fiscal stress despite the lack of legal liability.

Although most studies of fiscal stress vis a vis auditor performance have contemplated the private sector, Deis and Giroux (1992) considered the impact of financial health and other factors in a governmental context. They looked at quality control review papers for independent school districts in Texas to evaluate which factors were associated with lower audit quality. Audit quality, which was defined as the probability that discovered breaches would be reported, was considered to reflect auditor independence. Although audit quality remains only a proxy
for independence, it may be the most direct test of independence possible.

Several of the factors discussed previously, including financial health of the client and specialization of the audit firm, were tested as determinants of audit quality. Evidence indicates that auditors did in fact reduce audit quality in audits of financially strong public sector clients. This implies that an auditor may be more inclined to compromise independence when the client's healthy condition reduces the likelihood of scrutiny or legal liability. Deis and Giroux (1992) also found that more specialized audit firms performed higher quality audits, lending support to DeAngelo's (1981a) theory that specialization of audit firms would reduce the impact of lost client-specific revenues, leading to increased auditor independence.

If fiscal stress affects auditor independence, as implied by the studies discussed above, it may result in different reporting decisions, ceteris paribus. Fiscal Stress is therefore included as an independent variable in this study. Another factor that may affect auditor independence stems from the political environment of a municipality. This issue will be discussed in the following section.
Political Environment

The political environment is perhaps what most differentiates governmental audits from private sector audits. It has been argued that the political salience of local governments has become greater as the public expenditure climate has deteriorated in the last decade, making local elections the battleground for increasingly ideological economic debate (Goergen & Norpoth, 1991; Isaac-Henry & Painter, 1991).

Baber (1990) modelled the role of accounting information in the political environment. He argued that because voters are expected to be rationally ignorant of the actions of politicians and bureaucrats, accounting information only plays a role when political competition is high.

Baber (1990) maintained that competitors will enter into a political race only if they believe the rewards of office will exceed the costs of running. If most interest groups are affiliated with an incumbent, the cost of convincing them to change alliances may be too high, and the incumbent will be uncontested. If the costs are high, the political competition will be low, and the incumbent has no incentive to disclose his or her actions.

However, if only a narrow majority is with the incumbent, the costs of attaining a majority for the challenger are lower. If the costs to challengers are low,
the ability of the incumbent to maintain the majority is dependent upon whether pre-election actions benefitted interest groups in the majority coalition. According to Baber, if the incumbent’s actions benefitted interest groups, he or she will win the election in a highly competitive race. However, if the incumbent’s actions were not beneficial, the challenger will be able to win over a critical number of interest groups, winning the election.

When competition is high, therefore, interest groups and challengers want to monitor the actions of the incumbent. Accounting information provides evidence of the incumbent’s stewardship (or lack thereof). If the incumbent’s actions were positive, such as staying within the budget, he or she has an incentive to disclose it. If the accounting information might jeopardize the incumbent’s future political career, he or she will try to avoid disclosure (Baber & Sen, 1984; Ingram, 1984). Ingram (1984) found that accounting disclosure at the state level was inversely related to strength of the press, which was interpreted as attempts by politicians to defend themselves by disclosing less.

If a municipality is dealing with fiscal stress, politicians generally try to minimize problems, hide deficits, and deny responsibility for predicaments (Levine, Rubin, and Wolohojian, 1981). Although the mandated financial reporting and auditing in Louisiana makes it
difficult to hide budgetary excesses completely, information may be displayed in a way to obscure rather than elucidate the problem (Rubin, 1990).

Public budgeting is a highly political process, and Rubin (1990) contends that when political actors want to enhance their clout, they often focus on power over the budget as a way to attain it. If the budget is a source of political power, then mismanagement of the budget could be a source of power erosion. Rubin (1990, 232) asserts that

\[
. . . \text{ when governments run deficits because they lack internal discipline, or ignore or redefine the constraints of balance, they may be embarrassed by the consequences, and in the face of what would be widespread public disapproval. . . they sometimes choose to hide the deficits.}
\]

If the politician wishes to hide deficits, a likely outcome of exceeding the budget, it seems reasonable to expect that the politician would exert pressure against the auditor to minimize disclosure as well. Even if the mayor cannot directly control expenditures on the part of bureaucrats, it is the mayor who answers to the public through the election process. Giroux (1989, 202-203) noted that because "the public cannot influence the bureaucracy directly . . . they must work through the [elected officials] to change budget priorities."

When political competition is high and the budget has been exceeded, the auditor is likely to be pressured to
minimize disclosure. On the other hand, external forces to maintain independence may counteract them. If interest groups are scrutinizing the budget and past performance of the incumbent, the financial statements are a primary source of information. Scrutiny of the financial statements may correspond to increased scrutiny of the auditor as well. The literature has examined the motives of politicians regarding the budget, but there has been no examination of how those motives spill over to the actions of auditors. Therefore the political environment of the municipality will also be considered in this study.

The final factor to be considered in this study is the employment sector of the auditor. Until 1991, the Office of the Legislative Auditor and any private accounting firm could bid for local government audit engagements.¹ These two groups of auditors may differ in both expertise in governmental auditing and in motivations when dealing with client conflict. These issues will be discussed in the following section.

AUDITOR EMPLOYMENT SECTOR

Auditors employed by the public sector may differ from those in the private sector for various reasons. Public

¹ In 1991, private accounting firms successfully lobbied the Louisiana legislature to bar the Office of the Legislative Auditor from the bidding process, claiming that state revenue allocations provided them with an unfair competitive advantage.
sector auditors are specialists who work exclusively on governmental engagements, whereas those employed in the private sector are likely to have a combination of governmental and private sector clients. This specialization may lead to more expertise. A government employee may also have a different view of his or her role as an auditor and is unlikely to feel the same competitive pressures to maintain client relationships as is an auditor who depends on the good will of clients to stay in business. Accounting researchers have been prolific in the area of auditor expertise, but there has been little written about other qualitative factors that may differ between these two groups of auditors. Literature pertaining to auditor expertise will be discussed in this final section of the literature review, and inferences about other differences between public and private sector auditors will be considered as well.

Psychological research has demonstrated that experience increases the knowledge store of decision makers and affects the way in which that knowledge is organized, resulting in improved decision making abilities. Behavioral accounting research has made it increasingly clear, however, that general experience may not be the best measure of knowledge or expertise.

In earlier studies knowledge was an *ex post* explanation if experience was significant in determining
auditor judgments; however, because results were generally mixed, later studies searched for other measures of expertise that would avoid confounding experience with other factors (Libby, 1991). Some of the studies that have found expertise differences related to experience will be discussed below.

Messier (1983) investigated whether experience affected materiality judgments. All subjects in the study were audit partners, but they had a wide range of experience. The experiment consisted of 32 cases in which an inventory write-down was being considered. Subjects were asked to rate the materiality of the write-down on a seven point scale and to give the probability that it should be disclosed on the income statement.

Five financial variables were manipulated in the experiment, and as in most materiality studies, the effect on net income explained over 75 percent of the variance in responses. Experience was not significant in the materiality ratings, but it was significant in the resulting reporting decisions. In addition, more experienced auditors demonstrated higher consensus in their judgments than did less experienced auditors. Under the standard interpretation then, the more experienced subjects in Messier's (1983) study demonstrated more expertise.

Frederick and Libby (1986) argued that for experienced auditors to demonstrate expertise, they must be asked to
make judgments where expertise would be expected to produce different responses. Frederick and Libby designed an experiment in which subjects were asked to predict the financial statement implications of internal control weaknesses.

Errors in two pairs of accounts were reported in the experiment. Because of the double-entry nature of accounting, both pairs of errors were likely to be reasonable to inexperienced and experienced subjects. Frederick and Libby noted that only decision-makers with expertise in auditing could identify scenarios representative of internal control system weaknesses. As they predicted, experienced auditors were able to identify which internal control weaknesses would result in which pair of account errors whereas inexperienced auditors were unable to make similar assessments.

Bonner and Lewis (1990) differentiated four types of knowledge that may be germane to auditing tasks: general domain knowledge, subspecialty knowledge, world knowledge, and general problem solving ability. General domain knowledge is that gained by most people in a domain, such as auditing, through instruction and experience. Subspecialty knowledge is related to a subspecialty within the domain, acquired in a similar fashion, but only by those in that subspecialty area. World knowledge, such as general business knowledge, is gained from life experiences
rather than through instruction or domain experience. Finally, general problem solving ability is partially innate and partially refined through experience.

Ashton (1991, 219) tested the effects of domain-specific (subspecialty) knowledge in auditor judgments of error frequencies. Auditors were asked to estimate how frequently certain accounts contained errors and what the most frequent causes of those errors were. The estimates were compared to archival data to assess accuracy. There was no clear increase in accuracy with experience when auditors considered five separate industries. However, when auditors with experience in a particular industry were asked for error frequencies within their industry, the relationship between subspecialty experience and accuracy was strong. She concluded that:

 audit experience should be viewed as relating to specific tasks rather than as a singular, all-encompassing concept and that particular experience must be understood as it relates to a particular type of knowledge.

Meixner and Welker (1988) conducted an experiment to investigate which type of experience led to expertise, as measured by judgment consensus. They differentiated situational experience, or total audit experience, from organizational experience, which referred to the duration of a subordinate's experience with a particular audit staff and its superior. It was argued that the reason previous
studies had found conflicting results when attempting to show a positive relationship between experience and consensus was an inappropriate definition of experience as situational, rather than organizational experience. A field experiment was performed using staff members at the State Auditor’s Office of the State of Texas. The office is split into eight groups, each headed by a different manager. Subjects responded to 36 cases having to do with internal control questionnaires. The task was to assess strength of internal controls on a seven-point scale. The authors found that longer situational experience (total audit experience) did not result in higher consensus. In contrast, a significant increase in consensus was found to be associated with increased organizational experience. Tying this result into the framework of Bonner and Lewis (1990), total audit experience may increase general domain knowledge, but perhaps organizational experience is required to gain subspecialty knowledge.

Many of the auditors who work for the Office of the Legislative Auditor are employed there for their entire careers. Therefore, they may be more poised than private practitioners to gain the subspecialty knowledge required for governmental audits. It also seems likely that their long-term organizational experience would lead to higher consensus than would be found among less specialized auditors working for various organizations.
Legislative auditors and private practitioners may differ on other counts as well. In a review of non-academic literature, Ramanan and Rubin (1989) found mixed arguments about the relative independence of these two groups. Clients may find it more difficult to pressure auditors who are representatives of a governmental agency because there is a threat that any undue pressure could be reported to those with authority over transfer payments. If legislative auditors are part of an established bureaucracy that audits non-municipal entities as well, they may also be immune from market pressures to satisfy clients.

A private practitioner is unlikely to have either of these advantages over the client. However, credit analysts have historically placed higher value on municipal audits performed by private practitioners (Ramanan and Rubin, 1989). This preference may be due to perceptions of independence, competence, or other factors. The literature is not clear on this point. If private sector auditor integrity was a serious concern, however, this preference would be unlikely.

Finally, the two groups of municipal auditors may differ in their approaches to auditing. Kropatkin and Forrester (1983, 15) maintained that the goals of private practitioners and federal auditors are different:
In the view of many observers, the federal auditor traditionally approaches a [client’s] claims with the sole intent of looking for errors. Nonfederal auditors (and particularly public accountants) are thought to go to extremes to provide the grantee with a positive demonstration of accountability, or worse, to pass over issues of real significance.

Although Kropatkin and Forrester referred to federal auditors, it seems logical to extend the same argument to state auditors. In a review of belief revision studies, Asare and Messier (1991) noted that state auditors are generally predisposed toward negative evidence. However, in their own study, they found that the opposite was true, leading them to conclude that state auditor sensitivity toward negative evidence is shaped by the legal and professional environment of a particular engagement, not by a predisposition to expose clients.

Little research comparing the two groups of municipal auditors has been conducted. Perceptions of independence and audit goals have been debated, but empirical research to back up the debate is lacking. Evidence-proneness has been studied more scientifically, but the results have been conflicting and inconclusive. Ramanan and Rubin (1989) note that the majority of states allow either private practitioners or state (legislative) auditors to perform municipal audits. Empirical research contrasting the performance of these groups is needed if any conclusions
are to be drawn as to which is better suited for such engagements.

SUMMARY

In order for a governmental auditor to report noncompliance in the compliance report, the auditor must view the breach as material to the financial statements. The materiality and reporting literature is predominantly conducted in the private sector, where guidelines are fairly well established, if not specifically stated. Governmental guidelines are less fully developed because the standard reference points, such as net income and firm size, are absent. Research is needed into what factors influence an auditor’s materiality judgments in governmental contexts.

Materiality is a concept which has traditionally been applied to individual account balances. Government auditing standards require auditors to take this concept into a new domain by evaluating the materiality of noncompliance with laws and regulations. Little research has investigated how the materiality concept is interpreted in this relatively new role for auditors.

For noncompliance to be reported, the auditor must view the breach as material and must be independent from the client. Considerable research has investigated what factors may impair auditor independence and how such
impairment may affect reporting decisions. However, much of the reporting decision literature views reporting as strictly a function of materiality and not reflective of auditor independence. When materiality is clear-cut, auditor independence may not factor into the reporting decision. Research into reporting decisions when materiality is questionable may shed more light on the factors that impair auditor independence.

Finally, municipal audits may be conducted by two distinct groups of auditors. There are mixed arguments as to the relative independence of the legislative auditors and private practitioners, as well as their audit objectives, views of their clientele, and sensitivity towards positive or negative evidence. In addition to these issues, the results of the study by Meixner and Welker (1988) suggest that organizational experience may increase the relative expertise and consensus of legislative auditors.

This study is the first to consider materiality and reporting, independence, and experience simultaneously in the governmental environment. The results of this research should reveal materiality thresholds in governmental contexts, how those materiality judgments are manifested in reporting decisions, and whether factors that have been proposed as threats to auditor independence play a role in reporting decisions. Finally, this study will shed light
on the differences between the two types of auditors that may be engaged in governmental audits.
CHAPTER 3

RESEARCH METHOD

Compliance reporting decisions concerning the Louisiana Local Government Budget Act are examined in this study. This chapter outlines the research method used. In the first section, the hypotheses to be tested are developed. In the second section, the subjects, experimental design, and experimental instrument are discussed. In the final section, the statistical tools used are described.

RESEARCH HYPOTHESES

Discovery of failure by an audit client to comply with the Louisiana Local Government Budget Act requires some level of disclosure by the auditor. Reporting decisions signal the auditor's materiality judgment. In a flexible reporting situation, the auditor's disclosure decision may also reflect a balance between competing goals of client retention and maintaining professional integrity. Two research questions drive this study:

1. What level of reporting noncompliance with the Louisiana Local Government Budget Act is selected by auditors?

2. What factors are associated with a lack of consensus in reporting decisions?
Prior audit judgment research has analyzed cue usage in the framework of developing linear models of auditors' decisions (e.g., Ashton, 1974; Ashton and Brown, 1980; and Hamilton and Wright, 1982). While many factors potentially affect the compliance reporting decision, this study considers budget variance, fiscal stress, political environment, and employment sector. Hypotheses concerning these factors are developed below.

**Budget Variance**

Government Auditing Standards (GAS) require material noncompliance with laws and regulations to be reported. In reality, noncompliance with the Budget Act does not have any material impact on the financial statements. Noncompliance will not cause a municipality to lose its future funding or force it to refund taxes. The only legal recourse available to citizens is to obtain an injunction against further extra-budgeted expenditures. At issue is the materiality or significance of the violation in its own right.  

1 The Yellow Book defines significance as, "the importance, in relation to the audit objectives, of an item event, information, or matter, or of a problem the auditor identifies." This is somewhat different from materiality, which in the Yellow Book is defined as, "the magnitude of an omission or misstatement of accounting information that ... makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement." (GAO, 1988, G-8)
Effects on net income have been the major determinant of materiality thresholds found in private sector research (Holstrum and Messier, 1982). There is no analogous figure in governmental accounting, but revenues and expenses are addressed in the budget. Therefore, unfavorable variance from the budgeted expenditures may serve as a materiality guideline for auditors. If this is the case, auditors may have similar thresholds for budget variance as they do for effect on net income. Low budget variance may be viewed similarly to a low impact on net income, leading the auditor to judge noncompliance as nonmaterial, whereas high budget variance may be considered material noncompliance.

Budget variance below five percent is not a violation of the Budget Act and requires no reporting. Expenditures in excess of the budget by more than five percent represent noncompliance and require the auditor to evaluate the reporting options. Chewning, Pany, and Wheeler (1989) found that opinions were modified more frequently when changes in accounting principle had a high impact on net income. If budget variance is great, governmental auditors may similarly believe that a high order of disclosure is appropriate. If the auditor believes that noncompliance with the Budget Act is significant regardless of the dollar impact, the auditor may report budget variance at any level over five percent in the compliance report. In either case, higher levels of budget variance are expected to
result in higher levels of noncompliance reporting. This leads to the first hypothesis:

$H_{10}$: The percentage variance from the budget will not affect the reporting decision.

$H_{1A}$: Higher percentages of unfavorable budget variance will result in higher level noncompliance reporting.

As in prior research (e.g. Boatsman and Robertson, 1974; Stephens, 1983; and Chewning, Pany, and Wheeler, 1989), reporting decisions are examined in this study for their insight into auditor materiality judgments. A second line of audit research has examined factors that may impair auditor independence, thus affecting reporting decisions. Two such factors considered in this study are fiscal stress and political environment. The impact these two factors are expected to have on compliance reporting decisions will be discussed below.

Fiscal Stress

Prior research has shown that auditors are perceived to be better able to maintain their independence from clients when the auditee is in poor financial condition (Knapp, 1985), and that audit committee members are more likely to support the auditor should a conflict arise with a client in such a situation (Knapp, 1987). This has been explained as being due to the increased potential for legal liability of the auditor and the directors.
Although there are no analogous legal ramifications for the auditor for failing to disclose a violation of the Budget Act, an auditor may still be expected to avoid the appearance of impaired independence for financially troubled governmental clients. When municipalities experience declining revenues, past research has shown that citizen groups actively protect their interests (Levine, Rubin, and Wolohojian, 1981). In situations of fiscal stress, the auditor and/or the municipal government likely will be under more scrutiny than if the municipality is in a healthy financial condition.

Heightened public scrutiny could endanger the auditor's professional reputation if instances of noncompliance are not reported. Therefore the auditor must choose higher level reporting options (e.g., compliance report or opinion) to maintain a good professional reputation. However, if fiscal stress is absent, scrutiny can be expected to be lower. In this case, the auditor's professional reputation is not necessarily as endangered, and thus a lower level of disclosure may be used.

Empirical evidence has shown that audits of financially strong public sector clients are lower in quality (Deis and Giroux, 1992). If auditors are more inclined to compromise their independence when the client's healthy condition reduces the likelihood of scrutiny, lower quality audits may result and reporting levels may be reduced:
H2<sub>0</sub>: Fiscal stress will not affect the auditor's reporting decision.

H2<sub>A</sub>: High (low) fiscal stress will be associated with a higher (lower) level of noncompliance reporting.

**Political Environment**

The political environment differentiates governmental audits from private sector audits. As the primary document in determining the economic activity of a municipality, the budget is a logical subject of political debate. Factors that affect the salience of the budget, such as political competition, may therefore affect the seriousness with which auditors view violations of the Budget Act or the likelihood they will compromise their independence.

Baber (1990) noted that elected officials use audited accounting information to communicate their actions, leading to increased political sensitivity of the budget. The use of accounting information depends on the level of political competition. When political competition is high, incumbents benefit from increased accounting disclosures only if their actions have benefitted constituents (Baber, 1990). When political competition is low, disclosure of past activities is unlikely to affect the outcomes of future elections, and the incumbent has little incentive for disclosure (Baber & Sen, 1984; Ingram, 1984).

By contrast, newly elected politicians have no incentive to resist disclosure of budgetary problems.
Goergen and Norpoth (1991) found that the public seems to grant a newly elected official a "popularity credit" during the first year of office. During this period, the public is more receptive to the argument that any problems are the fault of the previous administration, particularly when considering economic outcomes. Therefore, newly elected officials tend to disclose or publicize any economic difficulties, such as over-expenditures, as soon as possible. Disclosure promotes the perception of the new official as an honest one who inherited a bad situation rather than as one who caused it or tried to hide it (Goergen and Norpoth, 1991).

If a governmental auditor finds noncompliance with the Budget Act in the first audit after a new mayor has been elected in a highly competitive race, a higher order of reporting can be expected. The new mayor can blame any budgetary problems on the previous administration during the "popularity credit" period, and is unlikely to resist disclosure. Therefore, a high level of reporting allows the auditor to maintain professional integrity without jeopardizing the auditor-client relationship.

By contrast, if the mayor is an incumbent in a noncompetitive political environment, he or she will try to hide problems such as deficits and mismanagement (Rubin, 1990). Conflict would likely result if an auditor suggested reporting noncompliance with the Budget Act
within the financial statements. Pressure from the incumbent could lead the auditor to compromise independence in order to maintain the client relationship. Therefore a lower level of reporting is expected if the mayor is an incumbent than if political turnover in a highly competitive election has occurred:

H3₀: Political turnover will not affect the auditor's reporting decision.

H₃亚: Political turnover will be associated with a higher level of noncompliance reporting.

Employment Sector

Currently, only private audit firms perform local government audits in Louisiana, but until July, 1991, such audits could be performed either by private practitioners or by staff members of the Legislative Auditor's Office. These two groups are likely to be fundamentally different, both in governmental auditing experience and approaches to compliance reporting judgments. Accounting researchers have investigated the link between work experience and audit judgments with mixed results.² Bonner and Lewis (1990, 3) discuss the findings of prior accounting research and suggest that researchers consider knowledge needed to

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complete tasks and, "not assume that all persons at a given level of experience equally possess task-specific knowledge."

Ashton (1991, 219) tested the effects of subspecialty knowledge in auditor judgments of error frequencies. She found a significant relationship between subspecialty experience and judgment accuracy but no relationship between general auditing experience and accuracy. Her findings suggest that if experience is to be used as a proxy for expertise, subspecialty experience is most relevant.

Legislative auditors work exclusively on governmental engagements, which gives them more subspecialty experience than their private practitioner counterparts. Bonner and Lewis (1990) suggest that this should lead to differences in subspecialty knowledge, which may result in the adoption of different disclosure choices. Kropatkin and Forrester (1983) noted that whereas auditors employed by the government are perceived as seeking out problems, private practitioners are perceived as enabling the client to look as good as possible, suggesting that private practitioners would be expected to report noncompliance at a lower level than legislative auditors:

H40: Group membership will not affect the auditor’s reporting decision.
H4A: Legislative auditors will use higher levels of noncompliance reporting than will private practitioners.

Another element that may lead to expected differences between these two groups could be a different approach to violations of the Budget Act and compliance reporting in general. The legislative audit group is trained to be particularly sensitive to noncompliance, and an internal memo to the legislative audit staff from the Policy and Quality Assurance Department specifically highlighted noncompliance with the Budget Act as a significant finding.³ Therefore, at any level above five percent variance the legislative audit group is expected to disclose noncompliance at the compliance report level. However, private practitioners may not be sensitized to the Budget Act and may judge violations with respect to materiality thresholds.

If private practitioners make materiality judgments, but legislative auditors simply judge compliance itself, the following reporting decisions would be expected: if

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³ The memo provided illustrations of material noncompliance, findings that were not material but were significant, and nonmaterial noncompliance. Unfavorable budget variance of over five percent was cited as a significant violation of the Budget Act. The memo further stated that all instances of material or significant noncompliance were to be reported in the compliance report. Because this study took place ten months after the memo was circulated, however, it was not expected that auditors would automatically recall the directive.
the budget variance did not exceed the five percent limit, neither group would report noncompliance. If variance was in excess of traditional materiality thresholds, both groups would report noncompliance on the compliance report. However, if the variance is marginally above the limit, legislative auditors would report on the compliance report, whereas private practitioners may judge the violation as nonmaterial and report at a lower level or not at all:

H4b: Group membership will have a significant interaction with budget variance in determining the level of noncompliance reporting.

Most of the legislative audit staff have had little experience as private practitioners. As members of a large staff supported by state funds, they are generally immune from any financial ramifications of losing a client. Private practitioners, on the other hand, must be concerned about the viability of their practice if they sacrifice client-specific revenues. Shockley (1982) noted that when auditors rely on good will from clients to stay in business, it can be difficult for them to remain independent.

For large firms, client-specific revenues are likely to be a small enough portion of total revenues that the auditor can maintain independence. Small firms, such as those engaged for most municipal audits, are less likely to be able to withstand the loss of a particular client,
however, and may be more likely to compromise under client pressure (DeAngelo, 1981c). Therefore the fiscal stress and political turnover factors discussed previously, that may increase pressure on auditors to compromise their independence, may only affect the private practitioners. Therefore the legislative audit group is expected to respond predominately to the budget variance, whereas the private practitioner group may consider other contextual factors as well:

\[ H_{4c}: \text{Group membership will have a significant interaction with fiscal stress in determining the level of noncompliance reporting.} \]

\[ H_{4d}: \text{Group membership will have a significant interaction with political turnover in determining the level of noncompliance reporting.} \]

Finally, legislative auditors work only in the field of governmental auditing, while private practitioners have a mix of governmental and non-governmental clients. Legislative auditors should therefore develop more specialized knowledge of governmental auditing. In the absence of correct responses, consensus is considered to be useful for demonstrating expertise (Dirsmith, Covaleski, and McAllister, 1985). Therefore, if subspecialty experience leads to increased subspecialty knowledge as Ashton (1991) and Bonner and Lewis (1990) suggest, legislative auditors should show higher consensus in their reporting decisions.
Meixner and Welker (1988) found that general auditing experience did not explain consensus, but organizational experience was a significant determinant of consensus. This finding concurs with Ashton's (1991) findings that expertise increased with subspecialty experience. In addition, because the legislative audit staff receives similar training and is under one administration, their disclosure decisions are likely to be more uniform than those of private practitioners working in various small firms. Therefore legislative auditors are expected to demonstrate higher consensus than are private practitioners:

H4e: Legislative auditors will show higher consensus in noncompliance reporting than will private practitioners.

The research hypotheses were tested in a quasi-experiment. The model and the experimental procedure are described in the following section.

**METHODOLOGY**

Noncompliance reporting decisions in a municipal financial statement audit are the focus of this study. The particular law considered is the Louisiana Local Government Budget Act, with which all municipalities or other political subdivisions of the state must comply. The Louisiana Local Government Budget Act was first implemented
in 1980 and last revised in 1984. The Budget Act is also among the state laws specifically emphasized in the Louisiana Governmental Audit Guide (Society of Louisiana Certified Public Accountants, 1989), thus is considered a law with which municipal administrators and governmental auditors should be familiar.

In particular, the Budget Act requires municipalities to adopt a budget amendment if expenditures exceed the original budget by more than five percent (LSA-RS 39:1309-1310). Therefore, if budget variance is greater than five percent, and no amendment is adopted, the governmental entity does not comply with the Budget Act.

The hypotheses outlined above were tested in the context of the Budget Act using a 2 x 2 x 2 x 3 quasi-experimental design. The model tested is as follows:

\[
RD = f(BV, FS, PT, G, G \times BV, G \times FS, G \times PT)
\]

where \(RD\) = Reporting Decision (6 levels)

- \(BV\) = Budget Variance (3 levels)
- \(FS\) = Fiscal Stress (2 levels)
- \(PT\) = Political Turnover (2 levels)
- \(G\) = Group (2 groups)

**Dependent Variable**

The dependent variable in the experiment was the Reporting Decision (RD). The auditors had the following six options in reporting:
1. No communication
2. Oral communication with management
3. Management letter
4. Footnote disclosure
5. Compliance report
6. Financial statement report (Opinion)

This variable was treated as ordinal in nature. If the auditor indicated that no communication would be made, RD was assigned a score of 0, oral communication was assigned a score of 1, and so on. As discussed in Chapter 1, GAS do not signify a hierarchical differentiation between the compliance report and the opinion, hence either report was assigned a score of 4.

Independent Variables

The first independent variable, unfavorable Budget Variance (BV), was manipulated at three levels: four, seven, and sixteen percent. Four percent is not in violation of the Budget Act, and therefore no reporting is required. Certainly the possibility exists that some "zealous" auditors will report any variance with the budget, at least in a management letter, regardless of legal requirements. The higher budget variance levels, seven and sixteen percent, indicate different degrees of noncompliance with the Budget Act. In materiality studies that have concentrated on private sector audits, anything less than four percent of net income has been nonmaterial, and anything greater than ten percent has always been
material. Results have been unclear as to where, in the four to ten percent range, the materiality threshold has been (Holstrum and Messier, 1982).

Although there is no precise equivalent to net income in governmental entities, the budget likewise concerns revenues and expenditures. Therefore a seven percent budget variance may fall in the area which may or may not be considered material, allowing the auditor some flexibility in disclosing noncompliance. The auditor may strike a balance between independence and client retention by choosing a lower level of disclosure. Sixteen percent, by contrast, is over the traditional maximum materiality thresholds and is likely to be considered material by all subjects. Seven and sixteen percent are also likely to be considered realistic by the subjects; a preliminary study of financial reports of Louisiana municipalities showed that actual budget variances of these levels were quite common. Significance of this variable in the model would support Hypothesis 1a.

The second independent variable is Fiscal Stress (FS). Various measures have been proposed to alert accountants, public administrators, and financial statement users of current or impending fiscal stress. Suggested measures have included credit default, insolvency, negative fund balances, negative cash flows, and particular patterns of revenue decline (Rosenberg & Stallings, 1978; Copeland &
Declining revenue is perhaps the most relevant of these measures in considering the Budget Act. Without some contextual information, however, such trends may not be sufficient to signal fiscal stress; municipalities may draw down accumulated fund balances deliberately in an effort to avoid raising taxes. If the revenue trend can be linked to an environmental or economic change, however, fiscal stress may be more clearly indicated.

Therefore, high fiscal stress was indicated by a serious erosion in the local tax base, caused by the closure of a plant that was a major employer in the area. The low fiscal stress condition indicated that employment levels and property values were expected to be stable in the foreseeable future. Significance of this variable in the model would support Hypothesis 2A.

The third independent variable is Political Turnover (PT). This variable is used to indicate the political environment. In the turnover condition, cases stated that the municipality had a new mayor in the current year following a highly competitive election in which the incumbent was defeated. The no-turnover condition stated that the mayor was a popular incumbent serving a third term. If political turnover was found to be significant, Hypothesis 3A would be supported.
Each of the first three independent variables was manipulated within subjects. The fourth independent variable, Employment Group (G), is by necessity a between subjects variable. The two groups are private practitioners and legislative audit staff. Significance of G would lend support to Hypothesis 4A. Hypothesis 4B posited that legislative auditors may report any noncompliance at the highest level whereas private sector auditors may differentiate between the two levels of noncompliance. This hypothesis is tested by including the (BVxG) interaction in the model. The next two hypotheses stated the expectation that only private sector auditors would consider fiscal stress and political turnover in making their reporting decisions. Therefore, significance of the interaction terms (GxFS) and (GxPT) would support Hypotheses 4C and 4D, respectively.

Subjects

The subjects for the experiment were auditors either in the private sector or working for the Office of the Legislative Auditor of Louisiana. Both groups have experience in compliance auditing. The auditors in the private sector were selected from a list, provided by the Legislative Auditor, of auditors who had been contracted by municipalities or other political subdivisions of the state of Louisiana to perform financial and compliance audits.
within the previous two years. The auditors from the Legislative Auditor's Office were selected from all branch offices and from a range of experience levels. A weakness in the study is that the subjects were not randomly selected, so inferences beyond the subject groups must be made with caution.

Procedure

The experimental task was conducted through the mail, with a letter enclosed from the Legislative Auditor encouraging participation in the experiment. This letter was included to increase the response rate.

The subjects received an experimental instrument that began with a short explanation of the task. Cases involved the fictional small town of Pemberton, Louisiana. The auditors were instructed that they had been engaged for an audit of Pemberton in accordance with Government Auditing Standards. A list of conditions possible for each case was also presented with the instructions. Finally, the introduction to the experiment included a condensed outline of the Louisiana Local Government Budget Act.

Cases provided the percentage of budget variance as well as information about the financial status and political profile of the municipality. Each subject received sixteen cases; twelve cases were required to provide all possible combinations of the within-subjects
variables, and following Ashton (1974) and Meixner and Welker (1988), four cases were duplicated to evaluate test-retest reliability. After reading the case descriptions, subjects were asked where, if anywhere, they would report noncompliance with the Louisiana Local Government Budget Act. Three sample cases, as well as all introductory materials, are illustrated in the Appendix.

Subjects were asked for certain demographic variables including the number of CPE credits in governmental audits they had earned and whether they had received the AICPA Governmental Accounting and Auditing Certificate of Educational Achievement (GAACEA). These data are used to describe the sample and in an effort to capture additional expertise elements affecting the decision process.

STATISTICAL ANALYSIS

Data gathered in the experiment were analyzed in an ordinal probit model. Ordinary probit and logistic regression models do not account for the ordinal nature of the reporting decision variable, and regression treats all intervals as equal. However, ordinal probit analysis was designed for use when a categorical dependent variable is inherently ordered (McKelvey and Zavoina, 1975).

Accounting researchers have used ordinal probit to model bond rating reactions to pension variables (Maher, 1987), corporate reactions to the proposed introduction of current cost accounting (Sutton, 1988), and accounting choices that alter net income (Press and Weintrop, 1990).
Ordinal probit assumes that the dependent variable is a linear function of the independent variables, such that: 

\[ Y = X\beta + u, \]

where \( \beta \) is a vector of parameters and \( u \) is a random disturbance. The error term is assumed to be normally distributed and independent. To mitigate violations of the independence assumption, the cases were administered in random order, with the constraint that the four repeated cases were last, and the first repeated case did not directly follow the initial presentation of that case. The order of the within-subjects variables was also randomized within the individual cases.

\( Y \), the interval dependent variable of the true model, is unobservable. Only \( Z \), which is an ordinal version of \( Y \), with \( M \) response categories can be observed. In this study, \( Z \) is the observable reporting decision, with five categories. The five categories represent intervals on the real line, bounded by three thresholds, \( \mu_i \) such that if:

\[
\begin{align*}
Y_i < 0 & \quad \text{then } Z_i = 0; \text{RD = no report} \\
0 < Y_i < \mu_1 & \quad \text{then } Z_i = 1; \text{RD = oral communication} \\
\mu_1 < Y_i < \mu_2 & \quad \text{then } Z_i = 2; \text{RD = management letter} \\
\mu_2 < Y_i < \mu_3 & \quad \text{then } Z_i = 3; \text{RD = footnotes} \\
\mu_3 < Y_i & \quad \text{then } Z_i = 4; \text{RD = compliance report or opinion}
\end{align*}
\]

Maximum likelihood estimators are used to estimate the parameters \( \beta \) and thresholds \( \mu_i \). Chi-square tests will be used to further test the model and describe the results. Finally, consensus within groups will be analyzed using
Pearson's product-moment correlation coefficients. Coefficients for all possible pairs of subjects will be computed. The overall mean correlation coefficient will be computed, as will the mean correlation coefficients for each of the two groups.

Hypothesis 4E posited that, because of subspecialty expertise and relatively uniform managerial influence, there would be a higher degree of consensus within the Legislative Audit group than within the private practice group or all auditors considered together. A two-sample t-test contrasting the mean correlation coefficients of the employment sector groups is used to test the final hypothesis.
CHAPTER 4

EMPIRICAL RESULTS

This chapter discusses the empirical results of the experiment described in the previous chapter. The data will be characterized first with chi-square tests and then with results of the ordinal probit analysis. Empirical results will be compared to the research expectations.

SUBJECTS

Legislative Auditors

Fifty experimental instruments were sent to staff members of the Office of the Legislative Auditor. Subjects were selected by an audit manager who served as a liaison during this study. These subjects were selected on a non-random basis such that the group of subjects would have a range of experience in compliance auditing, would contain representatives from each of the three major offices of the Legislative Auditor around the state, and would be available and presumed willing to participate.

Of the fifty instruments, 45 were returned completed. Nonresponding subjects were sent up to three letters urging their participation in an effort to increase the response rate. Each experiment contained twelve cases plus four repeated cases to check for consistency. Responses were deemed unusable if the reporting decision on more than one
of the repeated cases was inconsistent. One legislative auditor's response was deemed unusable by the above consistency criterion, but the remaining 44 responses were usable. This represents a usable response rate of 88% for this group.

Legislative auditors had an average of 14.8 years of accounting experience, with 12.4 years of governmental auditing experience. Twenty-four of the 44 legislative audit subjects were Certified Public Accountants (CPAs), one of whom had earned the Governmental Accounting and Auditing Certificate of Educational Achievement (GAACEA). Finally, legislative auditors had received an average of 57 hours of Continuing Professional Education (CPE) in the two years prior to the study. Most of the CPE for these subjects was provided internally, with CPAs and non-CPAs being instructed jointly.

Private Practitioners

Fifty experimental instruments were sent to private practitioners experienced in governmental audits. These subjects did not necessarily operate their own private practices; rather, all worked in the private sector for firms which engaged in governmental auditing. Subjects from the private sector were selected from a list, provided by the Office of the Legislative Auditor, of audit firms
that had been engaged for municipal audits in the two years prior to the experiment.

Firms were selected on a non-random basis such that auditors from all parts of the state and from different size firms would be included in the sample. Individual subjects were solicited over the telephone. In some instances, the contact person was willing to provide names of other subjects. In many cases, contact persons requested that they be sent multiple instruments which they would distribute to others in their firms.

Of the fifty experiments sent, twenty-nine were completed and returned. One of the responses was deemed unusable by the consistency criterion, representing a usable response rate of 56%.¹ Nonresponding subjects received two follow-up letters as well as an additional phone call to elicit participation, but the response rate for this group remained lower than that of the legislative audit group.

¹ It appears likely that several of the instruments were not distributed to potential subjects. To illustrate, one contact person at a larger firm agreed to participate and volunteered to distribute instruments to four colleagues within the firm. None of these five was returned. It seems reasonable to assume that the contact person did not distribute the experiments, and therefore only the contact person should be considered a non-respondent. Of the fifty experiments, it appears likely that eleven were never distributed. Therefore, if the response rate is adjusted for the likelihood that only 39 experiments reached the intended recipients, the usable response rate for this group was 72%.
Private practitioners participating in the study had an average of 14 years of accounting experience, with 10.8 years of experience in governmental auditing. Although there was no significant difference in total experience between the two groups of subjects, legislative auditors had significantly more governmental audit experience. These results are illustrated in Table 4.1. Private practitioners had earned less CPE credits, but the difference was not significant. Finally, 27 of the 28 private practitioners were CPAs, and 18 had earned the GAACEA.

**STATISTICAL ANALYSIS**

The hypotheses outlined in Chapter 3 were tested in the context of the Louisiana Local Government Budget Act using a $2 \times 2 \times 2 \times 3$ quasi-experimental design. Incomplete responses were included in the analysis, but the four repeated cases were excluded. If a subject was inconsistent on one case, the response to that case was eliminated from the analysis. If the subject was inconsistent on more than one repeated case, the entire instrument was deemed unusable, as discussed above. Responses used in the analysis totalled 844, with 514 from legislative auditor subjects and the remaining 330 from private practitioners. Data were analyzed using frequency tables and ordinal probit analysis.
Table 4.1
Experience and Certification of Subjects

<table>
<thead>
<tr>
<th>Experience</th>
<th>All Subjects</th>
<th>Legislative Auditors</th>
<th>Private Practitioners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Accounting Experience</td>
<td>14.5</td>
<td>14.8</td>
<td>14.0</td>
</tr>
<tr>
<td>Mean</td>
<td>Range</td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td>Governmental Auditing Experience</td>
<td>11.7</td>
<td>12.4</td>
<td>10.8</td>
</tr>
<tr>
<td>Mean</td>
<td>Range</td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td>Continuing Professional Education</td>
<td>55.3</td>
<td>57.0</td>
<td>52.6</td>
</tr>
<tr>
<td>Certification Earned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certified Public Accountant (CPA)*</td>
<td>24</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Non-CPA*</td>
<td>20</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Governmental Accounting and Auditing Certificate of Achievement (GAACEA)*</td>
<td>1</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Non-GAACEA*</td>
<td>43</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

* Experience variables measured in years.
* Continuing Professional Education is measured in hours in prior 24 months.
* Legislative Auditors differ significantly from Private Practitioners.

For each case, subjects were asked where they would report noncompliance with the Louisiana Local Government Budget Act. Subjects were instructed to select as many reporting options as applied (see Appendix). For the purpose of this analysis, the reporting decision variable was coded with the highest level of reporting circled by
the subject for that case. For example, if compliance report and management letter were both circled, the reporting decision would be coded as a compliance report. Subjects' reporting decisions are summarized in Table 4.2.

Table 4.2
Reporting Decisions

<table>
<thead>
<tr>
<th>Reporting Decision</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Report Made</td>
<td>206</td>
<td>24.4 %</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>49</td>
<td>5.8 %</td>
</tr>
<tr>
<td>Management Letter</td>
<td>54</td>
<td>6.4 %</td>
</tr>
<tr>
<td>Footnotes</td>
<td>23</td>
<td>2.7 %</td>
</tr>
<tr>
<td>Compliance Report or Opinion</td>
<td>512</td>
<td>60.7 %</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>844</strong></td>
<td><strong>100.0 %</strong></td>
</tr>
</tbody>
</table>

As Table 4.2 illustrates, responses were grouped primarily on the two ends of the reporting scale, with only 14.9% falling between no reporting and the highest level of reporting available. This study has suggested that four variables may influence which of the available reporting options an auditor chooses. Hypotheses involving budget variance, fiscal stress, political turnover, and employment sector were developed in Chapter 3. The evidence concerning each of these variables will be described separately below, using frequency tables and chi-square
tests. The ordinal probit analysis will then be discussed, followed by additional descriptive analysis of the data.

**Frequency Tables**

**Budget Variance**

The first research hypothesis, which concerned budget variance, was as follows:

\( H_{0}: \) The percentage variance from the budget will not affect the reporting decision.

\( H_{A}: \) Higher percentages of unfavorable budget variance will result in higher level noncompliance reporting.

Reporting decisions made by auditors at each budget variance level are illustrated in Table 4.3. The chi-square test is highly significant (\( p < .01 \)), indicating a strong relationship between budget variance and reporting decision.\(^2\) For example, when budget variance was four percent, representing municipal compliance with the Budget Act, 72.5\% of the responses indicated that no report should be made. However, when the municipality failed to comply with the Budget Act, all responses indicated some level of reporting. The reporting level was significantly higher for the sixteen percent budget variance cases than for the seven percent cases as well (\( \chi^2 = 13.054, p < .01 \)). These results support the first research hypothesis.

\(^2\) Chi-square tests of the data in this experiment were performed using SAS software, version 6.2, © 1990, SAS Institute.
Table 4.3
Reporting Decisions by Budget Variance Level

<table>
<thead>
<tr>
<th>Number of Responses</th>
<th>Column Percentage</th>
<th>4 %</th>
<th>7 %</th>
<th>16 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Report Made</td>
<td></td>
<td>206</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>72.5 %</td>
<td>0 %</td>
<td>0 %</td>
</tr>
<tr>
<td>Oral Communication</td>
<td></td>
<td>39</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13.7 %</td>
<td>2.1 %</td>
<td>1.4 %</td>
</tr>
<tr>
<td>Management Letter</td>
<td></td>
<td>18</td>
<td>28</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6.3 %</td>
<td>10.0 %</td>
<td>2.9 %</td>
</tr>
<tr>
<td>Footnotes</td>
<td></td>
<td>13</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.6 %</td>
<td>2.1 %</td>
<td>1.4 %</td>
</tr>
<tr>
<td>Compliance Report or Opinion</td>
<td></td>
<td>8</td>
<td>240</td>
<td>264</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.8 %</td>
<td>85.7 %</td>
<td>94.3 %</td>
</tr>
<tr>
<td>Total Responses</td>
<td></td>
<td>284</td>
<td>280</td>
<td>280</td>
</tr>
</tbody>
</table>

$\chi^2 = 707.26$  \( (p < .01) \)

**Fiscal Stress**

The second research hypothesis involved fiscal stress. Deis and Giroux (1992) found that audit quality was higher, and Knapp's (1985, 1987) studies implied that auditors were less likely to be pressured into underreporting, when fiscal stress was present. The findings of these studies led to the second research hypothesis:

$H_{20}$: Fiscal stress will not affect the auditor's reporting decision.
H2α: High (low) fiscal stress will be associated with a higher (lower) level of noncompliance reporting.

Table 4.4 provides the reporting decisions made at each level of fiscal stress. The chi-square statistic is not significant, indicating that there was no relationship between fiscal stress and the compliance reporting decision, thus the null hypothesis cannot be rejected.

Table 4.4
Reporting Decisions by Fiscal Stress Level

<table>
<thead>
<tr>
<th>Number of Responses</th>
<th>No Fiscal Stress</th>
<th>High Fiscal Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Report Made</td>
<td>107</td>
<td>99</td>
</tr>
<tr>
<td></td>
<td>25.5 %</td>
<td>23.3 %</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>4.8 %</td>
<td>6.8 %</td>
</tr>
<tr>
<td>Management Letter</td>
<td>28</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>6.7 %</td>
<td>6.1 %</td>
</tr>
<tr>
<td>Footnotes</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>2.4 %</td>
<td>3.1 %</td>
</tr>
<tr>
<td>Compliance Report or Opinion</td>
<td>254</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td>60.6 %</td>
<td>60.7 %</td>
</tr>
<tr>
<td>Total Responses</td>
<td>419</td>
<td>425</td>
</tr>
</tbody>
</table>

χ²₄ = 2.42   (p > .10)
Political Turnover

The third research hypothesis considered the impact of political turnover on auditors' reporting decisions. Political turnover was chosen as an indicator of the political environment, because it was believed that an incumbent mayor would be more likely to resist disclosure than someone who had just entered office after a competitive election. This led to the third research hypothesis:

$H_{30}$: Political turnover will not affect the auditor's reporting decision.

$H_{3A}$: Political turnover will be associated with a higher level of noncompliance reporting.

Reporting decisions at each level of political turnover are shown in Table 4.5. As with fiscal stress, the chi-square test did not indicate any relationship between political turnover and auditor reporting decisions. Again, the results fail to reject the null hypothesis.

Employment Sector

Subjects in the experiment were either private practitioners or legislative auditors. Kropatkin and Forrester (1983) noted that private sector auditors are perceived to be client advocates whereas federal auditors
Table 4.5
Reporting Decisions by Political Turnover

<table>
<thead>
<tr>
<th>Number of Responses Column Percentage</th>
<th>Incumbent Mayor</th>
<th>Political Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Report Made</td>
<td>104</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>25.5 %</td>
<td>24.3 %</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>27</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>6.4 %</td>
<td>5.2 %</td>
</tr>
<tr>
<td>Management Letter</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>6.4 %</td>
<td>6.4 %</td>
</tr>
<tr>
<td>Footnotes</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>2.4 %</td>
<td>3.1 %</td>
</tr>
<tr>
<td>Compliance Report or Opinion</td>
<td>256</td>
<td>256</td>
</tr>
<tr>
<td></td>
<td>60.4 %</td>
<td>61.0 %</td>
</tr>
<tr>
<td>Total Responses</td>
<td>424</td>
<td>420</td>
</tr>
</tbody>
</table>

\[ \chi^2_4 = 0.90 \ (p > .10) \]

are perceived to seek out problems for disclosure. If this perception is correct, legislative auditors should be expected to report noncompliance at higher levels:

H4_0: Group membership will not affect the auditor's reporting decision.

H4_A: Legislative auditors will use higher levels of noncompliance reporting than will private practitioners.

Reporting decisions of the two groups of auditors are depicted in Table 4.6. There is a highly significant relationship between employment sector of the subjects and reporting decisions (p < .01). This result supports
hypothesis $H_{4A}$. Additional hypotheses concerning employment sector will be considered in the discussion of the ordinal probit model.

Table 4.6
Reporting Decisions by Employment Sector

<table>
<thead>
<tr>
<th>Number of Responses</th>
<th>Legislative Auditors</th>
<th>Private Practitioners</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Report Made</td>
<td>125</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>24.3 %</td>
<td>24.6 %</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>31</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>6.0 %</td>
<td>5.5 %</td>
</tr>
<tr>
<td>Management Letter</td>
<td>18</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>3.5 %</td>
<td>10.9 %</td>
</tr>
<tr>
<td>Footnotes</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>1.8 %</td>
<td>4.2 %</td>
</tr>
<tr>
<td>Compliance Report or Opinion</td>
<td>331</td>
<td>181</td>
</tr>
<tr>
<td></td>
<td>64.4 %</td>
<td>54.9 %</td>
</tr>
<tr>
<td>Total Responses</td>
<td>514</td>
<td>330</td>
</tr>
</tbody>
</table>

$\chi^2_{4} = 24.95 \ (p < .01)$

Ordinal Probit Analysis

The chi-square analysis in the previous section established that a relationship existed between reporting decisions and budget variance as well as employment sector. However, a complete model of the compliance reporting decisions is needed to test these relationships simultaneously as well as to test the interactions between
employment sector and the remaining variables. The model to be tested is as follows:\(^3\):

\[ RD = f(BV, FS, PT, G, G \times BV, G \times FS, G \times PT) \]

where \( RD \) = Reporting Decision (6 levels)
- \( BV \) = Budget Variance (3 levels)
- \( FS \) = Fiscal Stress (2 levels)
- \( PT \) = Political Turnover (2 levels)
- \( G \) = Group / Employment Sector (2 groups)

The full model was tested using ordinal probit analysis, which estimates a linear model for an ordered categorical dependent variable (McKelvey and Zavoina, 1975). Maximum likelihood estimates of the coefficients for each variable, as well as for the threshold parameters, \( \mu_i \), were obtained. The results are presented in Table 4.7.

A chi-square test statistic is computed from the log likelihood ratio to test the significance of the overall model, and t-ratios are used to test the significance of individual parameters. The overall model is highly significant. Specifically, the ordinal probit results concur with the results of the frequency tables, in that budget variance and employment sector are found to be

---

\(^3\) Ordinal probit analysis of the model was performed using LIMDEP software, © 1991, William Greene, Econometric Software, Inc.
significant determinants of reporting decisions while fiscal stress and political turnover are not.

Legislative auditors reported violations of the Budget Act at a higher level than did private practitioners. This finding supports the perception that legislative auditors disclose noncompliance more readily, but it also suggests that they may consider noncompliance with the Budget Act significant at any level, whereas private practitioners judge the materiality of the noncompliance in making a

Table 4.7
Ordinal Probit of Reporting Decision on Budget Variance, Fiscal Stress, Political Turnover, Employment Sector, and Employment Sector Interactions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t - ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-4.978</td>
<td>-14.155**</td>
</tr>
<tr>
<td>Budget Variance</td>
<td>1.065</td>
<td>16.184**</td>
</tr>
<tr>
<td>Fiscal Stress</td>
<td>0.167</td>
<td>0.985</td>
</tr>
<tr>
<td>Political Turnover</td>
<td>-0.004</td>
<td>-0.025</td>
</tr>
<tr>
<td>Employment Sector</td>
<td>4.069</td>
<td>10.318**</td>
</tr>
<tr>
<td>Employment Sector x Budget Variance</td>
<td>-0.833</td>
<td>-12.801**</td>
</tr>
<tr>
<td>Employment Sector x Fiscal Stress</td>
<td>-0.094</td>
<td>-0.429</td>
</tr>
<tr>
<td>Employment Sector x Political Turnover</td>
<td>0.046</td>
<td>0.208</td>
</tr>
<tr>
<td>$\mu_1$</td>
<td>0.378</td>
<td>6.766**</td>
</tr>
<tr>
<td>$\mu_2$</td>
<td>0.827</td>
<td>10.169**</td>
</tr>
<tr>
<td>$\mu_3$</td>
<td>1.013</td>
<td>10.614**</td>
</tr>
</tbody>
</table>

$\chi^2 = 679.09^{**}$

** $p < .01$
reporting decision. If so, the two groups would respond to the budget variance factor differently. In addition, legislative auditors should be unaffected by other variables such as fiscal stress and political turnover. By contrast, private practitioners may consider these factors because of pressures that would be brought to bear against them in client conflict situations. The following hypotheses reflect these expectations:

H4b: Group membership will have a significant interaction with budget variance in determining the level of noncompliance reporting.

H4c: Fiscal stress will affect the level of noncompliance reporting for private practitioners but not for legislative auditors.

H4d: Political turnover will affect the level of noncompliance reporting for private practitioners but not for legislative auditors.

In the ordinal probit model, the employment sector x budget variance interaction is significant. This supports Hypothesis 4b. However, the employment sector interactions with fiscal stress and political turnover are not significant, and therefore Hypotheses 4c and 4d are not supported. Fiscal stress and political turnover were expected to impact the reporting decision because of the implications for auditor independence. The fact that neither was significant, alone or in conjunction with employment sector, implies that the auditors did not consider the pressures against them or believed such
pressures would not affect their reporting decisions. The significance of the budget variance $\times$ employment sector interaction, however, adds additional support to the notion that legislative auditors and private practitioners have different approaches to reporting noncompliance.

The ordinal probit model did not perform perfectly. When applying the coefficient estimates to the actual data, the misclassification rate was 15.9%. In a small number of cases where no report was expected, subjects chose to disclose noncompliance. However, misclassification occurred primarily because the model predicted that all responses would fall into the two extreme categories, no report or compliance report. Therefore, all cases in which the subject chose oral communication, management letter, or footnotes were misclassified.

Separate ordinal probit models for each employment sector group were also estimated, excluding the employment sector variable and all interactions. These models are presented in Table 4.8. As the overall model indicated, only budget variance was significant for either group. Although both models are highly significant, the model for the legislative auditors has a notably lower misclassification rate of 12.1%, compared to 21.8% for the private practitioners.
Table 4.8
Ordinal Probit of Reporting Decision on Budget Variance, Fiscal Stress, and Political Turnover

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t - ratio</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>- 5.069</td>
<td>- 14.141**</td>
<td></td>
</tr>
<tr>
<td>Budget Variance</td>
<td>1.097</td>
<td>15.147**</td>
<td></td>
</tr>
<tr>
<td>Fiscal Stress</td>
<td>0.170</td>
<td>1.037</td>
<td></td>
</tr>
<tr>
<td>Political Turnover</td>
<td>- 0.004</td>
<td>- 0.023</td>
<td></td>
</tr>
<tr>
<td>$\mu_1$</td>
<td>0.516</td>
<td>5.209**</td>
<td></td>
</tr>
<tr>
<td>$\mu_2$</td>
<td>0.914</td>
<td>6.587**</td>
<td></td>
</tr>
<tr>
<td>$\mu_3$</td>
<td>1.160</td>
<td>6.026**</td>
<td></td>
</tr>
</tbody>
</table>

$\chi_3^2 = 474.57**$

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t - ratio</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>- 0.932</td>
<td>- 5.253**</td>
<td></td>
</tr>
<tr>
<td>Budget Variance</td>
<td>0.226</td>
<td>12.980**</td>
<td></td>
</tr>
<tr>
<td>Fiscal Stress</td>
<td>0.070</td>
<td>0.482</td>
<td></td>
</tr>
<tr>
<td>Political Turnover</td>
<td>0.040</td>
<td>0.277</td>
<td></td>
</tr>
<tr>
<td>$\mu_1$</td>
<td>0.272</td>
<td>4.391**</td>
<td></td>
</tr>
<tr>
<td>$\mu_2$</td>
<td>0.753</td>
<td>7.529**</td>
<td></td>
</tr>
<tr>
<td>$\mu_3$</td>
<td>0.916</td>
<td>8.335**</td>
<td></td>
</tr>
</tbody>
</table>

$\chi_3^2 = 186.59**$

To investigate why the interaction of employment sector and budget variance is significant, the data for each group need to be analyzed. Table 4.9 presents the reporting decisions of the legislative auditors and private practitioners separately at each level of budget variance.
Table 4.9
Reporting Decision by Budget Variance and Employment Sector

<table>
<thead>
<tr>
<th>Frequency Column %</th>
<th>Legislative Auditors</th>
<th>Private Practitioners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4% Budget Variance</td>
<td>7% Budget Variance</td>
</tr>
<tr>
<td>No Report</td>
<td>125</td>
<td>0</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>Management Letter</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Footnotes</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Compliance Report or Opinion</td>
<td>4</td>
<td>160</td>
</tr>
<tr>
<td>Total</td>
<td>173</td>
<td>170</td>
</tr>
</tbody>
</table>

$\chi^2 = 455.01^{**}$

<table>
<thead>
<tr>
<th>Frequency Column %</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4% Budget Variance</td>
<td>7% Budget Variance</td>
</tr>
<tr>
<td>No Report</td>
<td>81</td>
<td>0</td>
</tr>
<tr>
<td>Oral Communication</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>Management Letter</td>
<td>6</td>
<td>22</td>
</tr>
<tr>
<td>Footnotes</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Compliance Report or Opinion</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>111</td>
<td>110</td>
</tr>
</tbody>
</table>

$\chi^2 = 280.74^{**}$

**p < .01**
The table illustrates that for most subjects, if the budget variance was four percent, i.e., if the municipality was not in violation of the Budget Act, auditors would not report non-compliance.

However, at seven percent budget variance, the private practitioners reported at a lower level than legislative auditors. Only six percent of the legislative auditors reported noncompliance below the compliance report, whereas twenty-seven percent of the private practitioners did. Most notably, twenty percent of private practitioners chose to report noncompliance in a management letter, whereas only 3.5% of legislative auditors chose this option. The same held true for cases with sixteen percent budget variance, although the difference between the two groups was less marked.

In general, legislative auditors seemed to see the issue as black and white: if the client was in compliance with the law, there was no reporting, or at most there was only oral communication with the client about the budget variance. If, on the other hand, the municipality did not comply with the Budget Act (variance of 7% or 16%), disclosure was made in the Compliance Report or in the Opinion on the Financial Statements.

In contrast, private practitioners tended to report at a lower level. Many of these subjects reported noncompliance in the footnotes or in a management letter,
especially with budget variance of seven percent, rather than disclosing noncompliance in the Compliance Report or the Opinion. Private practitioners apparently judged the materiality of the noncompliance in making a reporting decision, whereas legislative auditors judged all noncompliance with the Budget Act as significant enough to include in the compliance report.

CONSENSUS

The final research hypothesis concerned consensus among governmental auditors. The longer governmental auditing experience of the legislative auditors should lead to more subspecialty expertise (Ashton, 1991) and therefore to higher consensus (Bonner and Lewis, 1990). Further, more experience within an organization should also result in more consensus (Meixner and Welker, 1988). This led to the final research hypothesis:

H4E: Legislative auditors will show higher consensus in noncompliance reporting than will private practitioners.

Consensus in reporting was measured using Pearson's product-moment correlation coefficients. The reporting decisions of each auditor were correlated to the decisions of every other auditor, such that the correlations for each possible pair of subjects were determined. Following Ashton (1974) and Meixner and Welker (1988) the mean of
these coefficients was then computed as a measure of overall consensus in reporting among subjects. The mean correlation of .943 demonstrates very high consensus, particularly in comparison to prior accounting research.4

Of interest in this research is whether the consensus among legislative auditors is higher than among private practitioners. The correlations between all possible pairs of legislative auditors resulted in a mean correlation of .975, with a minimum correlation of .697 and maximum of 1.0. The mean correlation among all possible pairs of private practitioners was .896, with minimum correlation of .544 and maximum of 1.0. Although the consensus within each group was quite high, the mean correlation of the legislative audit group was significantly higher than that of the private practitioner group (p < .01). This supports the final hypotheses, H4E, that the legislative auditors would show higher consensus than the private practitioners.

STATISTICAL LIMITATIONS

The interpretation of the results is limited by a few factors. First, the subjects were not selected at random, limiting the generalizability of the conclusions beyond the

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4 For example, Ashton (1974) and Meixner and Welker (1988) found mean correlations of .70, .373, and .73, respectively, among auditors making internal control judgments.
participants. Similarly, the possibility of non-response bias must be considered. Responses of subjects who returned completed instruments after the initial request were compared to those returned after additional prompting. The early and late groups did not differ significantly either in chi-square tests or when a dummy variable was added to the ordinal probit model. Therefore it is not expected that nonrespondents would have differed from respondents in their reporting decisions.

Second, the letter from the Legislative Auditor may have influenced the results of the experiment. The letter was included to increase participation, and the high response rate suggests that the letter was successful. However, the letter may have caused some subjects to respond as they believed the Legislative Auditor wanted them to rather than as they would in a real audit, despite assurances that responses and names of participants would be kept confidential. The letter may also have altered the auditors' perceptions of the importance of the Louisiana Local Government Budget Act.

**COMPARISON TO ACTUAL AUDIT DATA**

In the development of this study, a sample of 100 annual reports of municipalities and parishes in Louisiana were examined. Management letters that had been submitted to the Legislative Auditor, as required in the engagement
letters, were also made available. As required by Generally Accepted Accounting Principles for governments, these financial statements compared actual revenues and expenditures to the respective budgeted amounts. Budgets were presented as amended, and therefore compliance with the Louisiana Local Government Budget Act could be determined.

Noncompliance with the Budget Act was commonplace among the municipalities sampled. Of the 100 reports examined, 40 revealed budget variances in excess of five percent.\(^5\) Reporting practices in the haphazard sample were markedly different from those found in this study. Although fiscal stress and political turnover were not determined, and all but two of the audits were performed by private practitioners, the response to budget variance bore virtually no resemblance to the experimental responses. Among the 100 sampled municipal and parish reports, there was no significant relationship between budget variance and noncompliance reporting. Table 4.10 presents the data from the haphazard sample.

In the experiment, most subjects reported any violation of the Budget Act (all cases with budget variance over five percent) in the Compliance Report. In the archival sample, numerous cases of noncompliance went

\(^5\) For the purposes of this discussion, budget variance refers to actual versus budgeted total expenditures for the General Fund.
Table 4.10
Budget Variance Versus Compliance Reporting Decisions: Haphazard Sample of 100 Municipalities

<table>
<thead>
<tr>
<th>Reporting Decision</th>
<th>Mean Budget Variance</th>
<th>Range of Actual Budget Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Report</td>
<td>7.1 %</td>
<td>0.2 - 27.4 %</td>
</tr>
<tr>
<td>Management Letter</td>
<td>1.7 %</td>
<td>(only one report)</td>
</tr>
<tr>
<td>Footnotes</td>
<td>14.6 %</td>
<td>11.0 - 16.7 %</td>
</tr>
<tr>
<td>Compliance Report</td>
<td>17.6 %</td>
<td>5.4 - 41.5 %</td>
</tr>
</tbody>
</table>

*Highest reporting level used, e.g., if noncompliance was reported in the Compliance Report and a Management Letter, it is included in the Compliance Report figures.*

unreported. To illustrate that these findings were not the result of isolated exceptions, Table 4.11 presents the frequency with which noncompliance was reported or not reported, with municipalities divided into ranges of budget variance. As indicated by the nonsignificant chi-square value, there was no difference among the levels of budget variance in the proportion of cases reported versus not reported.

This striking finding has a number of possible explanations. The sample of actual reports studied was not random, and therefore may not be representative of all municipal audits in Louisiana. It is possible that noncompliance with the Budget Act is reported more frequently in general. Participants in the study were not selected at random either, and it is possible that the
subjects tended to report at higher levels than the population of governmental auditors would.

Table 4.11
Compliance Reporting among Sample Municipalities

<table>
<thead>
<tr>
<th>Frequency Row Percentage</th>
<th>Noncompliance Reported*</th>
<th>Noncompliance Not Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - 10 % Budget Variance</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>24 %</td>
<td>76 %</td>
</tr>
<tr>
<td>10 - 15 % Budget Variance</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>20 %</td>
<td>80 %</td>
</tr>
<tr>
<td>15 - 20 % Budget Variance</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>25 %</td>
<td>75 %</td>
</tr>
<tr>
<td>over 20 % Budget Variance</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>60 %</td>
<td>40 %</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>29</td>
</tr>
</tbody>
</table>

\[ \chi^2_3 = 3.091 \quad (p > .10) \]

*Noncompliance was considered reported if it was noted in the footnotes, the compliance report, the report on internal controls, or the opinion on the financial statements.

It seems likely, however, that the explanation for the difference between the experimental results and the actual audit data is not strictly an experimental artifact. As an initial investigation into compliance reporting decisions, this experiment was far less complex than an actual audit, by design. Municipal auditors must evaluate compliance with numerous laws and regulations simultaneously, and it is possible that the Budget Act gets overlooked or is considered less important than other laws with more
potential impact on the financial statements. It is also likely that auditor independence is subject to more pressure in an actual audit than in this experiment, and auditor compromise may result in less frequent noncompliance reporting. These issues will be addressed further in the final discussion chapter of this dissertation.

SUMMARY

The statistical analysis discussed in this chapter demonstrates a few strong trends. Consensus among auditors was quite high, especially within the Legislative Audit group. The two groups of subjects, legislative auditors and private practitioners, both made reporting decisions based on budget variance but reacted to it somewhat differently. Though all subjects reported all cases of noncompliance, private practitioners reported it at a lower level on average.

For many of the participants in the study, the Budget Act cases presented were clear cut. If the municipality had not violated the Louisiana Local Government Budget Act, there was no need to report or even discuss noncompliance with the client. However, if noncompliance did occur, they reported it directly on the Compliance Report. Not all subjects followed this strategy, however. Many private practitioners used a lower level of reporting when the
budget variance was seven percent, an amount where materiality may be questionable.

Lastly, none of the subjects was influenced by the fiscal stress or political turnover variables. This contradicts the findings of prior research (Deis and Giroux, 1992; Baber, 1990), and may suggest that independence impairment cannot be induced in an experiment of this nature. It is also possible, however, that because of the frequency of qualified opinions in governmental audits (Lynn and Gaffney, 1990), municipal clients may not resist disclosure, mitigating such pressures against auditors.
CHAPTER 5

DISCUSSION

The Louisiana Local Government Budget Act requires that municipalities adopt an annual budget through the political process. If it becomes apparent that a municipality will exceed budgeted expenditures by five percent or more, a budget amendment must be adopted through that same political process, or the municipality is in noncompliance with the Budget Act. Government Auditing Standards require that governmental entities be audited not just for fair presentation in the financial statements, but also for compliance with applicable laws and regulations. If noncompliance that has a material effect on the financial statements is found, the auditor is required to disclose it in the Compliance Report, one of the three reports issued by the auditor in a governmental engagement.

This study tested whether fiscal stress, political turnover, and employment sector impact the compliance reporting decisions of governmental auditors faced with varying degrees of noncompliance with the Louisiana Local Government Budget Act. Budget variance, employment sector, and the interaction between the two factors were highly significant. Fiscal stress, political turnover, and their interactions with employment sector were all found to be statistically insignificant. In this chapter, the research
findings, practical implications of the results, and questions raised will be discussed.

RESEARCH FINDINGS

Budget Variance

The Louisiana Local Government Budget Act requires that a municipal budget be amended only if expenditures exceed the budget by five percent or more, and therefore cases with only four percent budget variance are in compliance with the Budget Act. Accordingly, most auditors did not report noncompliance when the budget variance was four percent. When the budget variance was seven or sixteen percent and the municipality failed to adopt a budget amendment, most auditors found some level of noncompliance reporting appropriate. However, once the budget variance exceeded the five percent threshold, there was less unanimity as to the appropriate level of reporting.

Some auditors reported noncompliance directly on the Compliance Report whether the variance was seven percent or sixteen percent. These auditors apparently used a "black or white" decision strategy, whereby municipalities complying with the Budget Act were not reported for the four percent variance, and municipalities not complying with the Act were reported at the highest level. Other auditors reported the sixteen percent variance cases on the
Compliance Report but used lower level disclosure choices, such as footnotes or management letters, for the seven percent cases.

Recall that Government Auditing Standards require that instances of noncompliance with a material impact on the financial statements be reported. Those subjects who reported at a lower level for seven percent than for sixteen percent variance apparently had a materiality threshold between these two points, above which noncompliance was reported on the Compliance Report, but below which noncompliance was disclosed at a less visible level. Those who reported both seven percent and sixteen percent on the Compliance Report, however, may have considered both levels to be material noncompliance, or they may have considered any violation of the Budget Act significant enough in its own right to warrant reporting, regardless of materiality.

Materiality studies that have focused on private sector audits have found five to ten percent of net income to be the materiality threshold (Holstrum and Messier, 1982). Although net income is not completely analogous to budget variance, it seems reasonable to expect that a similar materiality threshold of five to ten percent would be found in the governmental arena as well. Therefore the finding that seven percent budget variance was considered
material by some auditors but not by others concurs with prior audit judgment research.

Employment Sector

Until July, 1991, local governments in Louisiana could engage auditors from either the private sector or from the Office of the Legislative Auditor. Legislative audit staff were expected to make different reporting decisions from private practitioners for a few reasons. First, the Legislative Audit staff are specialists in governmental accounting and may have more sub-specialty knowledge in auditing for compliance with laws and regulations. By contrast, certified public accountants in the private sector, whether self-employed or working for larger accounting firms, are likely to have a mixture of governmental and business clients, and they may be less knowledgeable about compliance issues.

Auditors in the private sector come from many firms from all over the state of Louisiana. They work for firms that have different priorities in continued training, in client retention, and in industry specialization. On the other hand, staff members for the Legislative Auditor specialize in governmental accounting and auditing. They work under established bureaucratic procedures, and they receive similar training in governmental auditing. These
factors again may lead to increased sub-specialty knowledge among the legislative audit group.

Finally, differences between these two groups may arise from different perceptions of their roles as auditors. Kropatkin and Forrester (1983) observed that auditors employed in the private sector tend to paint the best possible picture of their clients, whereas auditors who are public employees tend to focus on seeking out errors in the auditee's records. This observation may result from a different outlook on the part of the auditors as to who their clients actually are in a governmental engagement.

As private practitioners, private sector auditors are accustomed to working with the management team of a client company to achieve an acceptable balance between full disclosure and client retention. They are also accustomed to making reporting decisions in light of materiality judgments. Conversely, as public employees who may view themselves as the public watchdogs, legislative auditors may consider the public at large -- and not municipal administrators or political leaders -- as the ultimate clients whose interests must be considered. Without the possibility of partnership and personal shares of client revenues, they have less incentive to appease a client by lowering the level of disclosure. They may also be
accustomed to judging compliance itself, rather than making materiality judgments where noncompliance is concerned.

Legislative auditors reported noncompliance at higher levels than did private practitioners, members of the two groups responded differently to the budget variance levels, and there was higher consensus among legislative auditors than among private practitioners. These findings resulted primarily from reporting decisions for cases with budget variance of seven percent.

At four percent and sixteen percent budget variance, reporting decisions were similar between the two groups. For the most part, private and public sector auditors reported nothing at four percent and disclosed noncompliance on the Compliance Report at sixteen percent. However, although most legislative auditors reported seven percent budget variance on the Compliance Report, many private sector auditors reported seven percent budget variance at lower levels, such as in footnotes or management letters. This was not always the case, though, as some private sector auditors did report seven percent budget variance on the Compliance Report. This explains the finding that there was less consensus among private practitioners (.896) than among legislative auditors (.975), although the consensus was quite high for both groups.
Fiscal Stress

Fiscal stress was found not to impact the reporting decisions of the subjects in this experiment. This result is contrary to the findings of prior accounting research, which has found that audit quality was higher (Deis and Giroux, 1992) and that auditors were perceived to be likely to be pressured into underreporting when fiscal stress was present (Knapp, 1985).

The relationship between auditor judgments and fiscal stress has been explained as due to impaired auditor independence. If this is the correct interpretation, the lack of significance here may result from the experimental method used in this study. In a mailed experiment, where subjects are not required to interact with clients and are not concerned about future revenues, pressures against independence are difficult to duplicate. Even if such pressures were simulated in the experiment, subjects may not have considered how fiscal stress would affect their power vis a vis the client. Finally, the perceptions of Knapp's (1985, 1987) subjects may have been incorrect, and the correlation between audit quality and financial health found by Deis and Giroux (1992) may not extend to compliance reporting decisions.
Political Turnover

Political turnover was chosen as an indicator of the political environment of the municipality, because it was believed that an incumbent mayor would be more likely to resist disclosure than someone who had just entered office after a competitive election, in which the budget may have been an issue. There was no evidence that political turnover had any effect on compliance reporting decisions.

Auditors may not have appreciated the role of accounting information in the political environment or they may not have considered how turnover might affect the pressure they would receive to underreport noncompliance. Perhaps other political variables, such as a pre-election (rather than post-election) fiscal year, an upcoming tax referendum, or some other variable would have affected auditor reporting decisions.

Comparison to Actual Audit Data

The difference between the actual data sample and the experimental results raises a number of questions. Auditors in the haphazard sample may not have been as familiar with the Louisiana Local Government Budget Act as were the participants in the study. Municipalities are subject to so many laws and regulations that auditors may not be familiar with all of them. If this is the case, however, auditors may not be following due diligence. To
perform an audit in accordance with Government Auditing Standards, auditors are required to obtain an understanding of laws generally recognized by auditors to have an effect on the financial statements (AICPA, 1989). The Budget Act is one of the pieces of legislation highlighted in the Louisiana Governmental Audit Guide (Society of Louisiana Certified Public Accountants, 1988), indicating such general recognition.

Is the failure to report an indication of lack of awareness of the Budget Act, or do auditors not consider violations of the Budget Act material to the financial statements? If auditors are not aware of the act, the answer must be to enforce Continuing Professional Education (CPE) requirements of auditors wishing to perform municipal audits. If the latter is the case, why would auditors not find even extreme violations material in actual audits yet consider them reportable in the experiment?

One answer to this question is that in the context of an actual municipal audit, where many laws and regulations must be considered simultaneously, the Budget Act may not receive the same focused attention that it did in this study. Auditors who are familiar with the Budget Act may choose to emphasize laws which have a clearly material impact on the statements or laws that, if broken, have serious legal ramifications.
Noncompliance with the Budget Act may leave the municipality subject to a court-imposed freeze against any additional extra-budgeted expenditures, but by the time the audit is being performed, the municipality has generally moved into the next fiscal year with a new budget in place. The possibility of legal action is remote, and legal liability for the auditor is unlikely. Therefore, auditors may feel that the comparative presentation of budgeted versus actual revenues and expenditures, required by Generally Accepted Accounting Principles, is sufficient to address the Budget Act. The lack of comparative figures in the experimental instrument may have increased the use of high level compliance reporting.

The letter from the Legislative Auditor, included in the experimental instrument to increase participation, also may have led subjects to respond at a higher level. Although subjects were guaranteed anonymity, they may have responded as they thought they should rather than as they would in an actual audit. Additionally, pressures against independence were likely not simulated successfully in this study. In a client conflict situation, auditors may compromise with the client by agreeing to address budget variance only in the comparative statements rather than specifically reporting noncompliance with the Budget Act. Finally, in the context of a real audit, other factors not
captured or manipulated here may affect the reporting decision process.

Summary

Sixty-eight governmental auditors participated in an experiment focusing on municipal adherence to the Louisiana Local Government Budget Act, to determine how budget variance, fiscal stress, political turnover, and employment sector affected auditors' noncompliance reporting decisions. Among the participants in this study, budget variance was the most significant factor in reporting decisions. The majority of subjects reported any noncompliance with the Budget Act directly in the Compliance Report. However, reporting patterns were different for auditors employed in the private sector than for auditors employed by the Legislative Auditor of Louisiana, with the legislative auditors reporting at a higher level on average.

At the lowest level of budget variance (4 percent), and the highest level (16 percent), reporting patterns of the two groups were essentially the same: four percent does not violate the Budget Act, so most auditors did not report noncompliance anywhere; sixteen percent was considered by most auditors to be material noncompliance, and was generally reported in the Compliance Report. The difference between the two groups was significant when
budget variance was seven percent, however. Legislative Audit staff reported noncompliance on the Compliance Report in such cases, whereas many private sector auditors reported noncompliance in a management letter or in the footnotes when budget variance was seven percent.

For the vast majority of auditors, neither fiscal stress nor political turnover had a significant impact on noncompliance reporting decisions. Political turnover did not impact the reporting decisions of a single participant in this experiment. However, a small number of auditors did choose higher reporting levels if fiscal stress was present than if it was absent. It seems likely, given the overwhelming significance of budget variance, that auditors would not alter their judgments regardless of the political environment of the budget. Fiscal stress and political turnover, or some other indicator of the political environment, may have more of an impact on auditor reporting decisions if the compliance issue were a law or regulation with less clear-cut boundaries between compliance and noncompliance.

Finally, consensus among auditors was quite high. Legislative auditors were in almost complete agreement as to where and when noncompliance should be reported. Consensus among private practitioners was somewhat lower but was still quite high. This reduced consensus is attributable primarily to agreement among legislative
auditors but variability among private practitioners as to where seven percent variance cases should be reported.

**LIMITATIONS OF THE STUDY**

Compliance auditing has not been the subject of much academic research to date, particularly behavioral research. Before complex decisions can be analyzed, some of the basic assumptions about reporting decisions must be tested. As a result, this study was quite simplistic in comparison to the contextually rich environment of governmental auditing. Focusing on only one law made it easy for the subjects to attend to that law and evaluate compliance. This may have caused subjects to report noncompliance more commonly than they would in practice.

The subjects of this study were not selected at random. Therefore, any findings as to the significance of budget variance, employment sector, fiscal stress, and political turnover are statistically valid only among the subjects, and conclusions about the importance of these factors to governmental auditors in general must be made with caution. The differential response rate between the two groups may also have heightened the significance of the employment sector variable.
CONTRIBUTIONS

This experiment is one of the first to investigate specifically the decision making of governmental auditors. The quality of governmental audits has been a concern of the U.S. government and the AICPA for the past decade, but it is only beginning to receive attention in the academic literature. There has been extensive research into the decisions of auditors in areas such as internal control evaluations, materiality judgments, and even reporting, but these studies have focused on the audits of private sector businesses.

This study extends previous research by considering governmental auditing and the added role auditors play in evaluating compliance with laws and regulations. The Louisiana Local Government Budget Act was chosen for this study because it is directly relevant to the financial statements, and auditors should be familiar with the content and the importance of municipal budgets.

The participants in this study reflected an understanding of the law in their reporting decisions, but there were clearly differences between how private practitioners and legislative auditors chose to disclose noncompliance with the Budget Act. This lends support to the increasing notion in accounting research that it is sub-specialty knowledge, not length of experience, which leads to expertise in audit judgment. It also suggests
that legislative auditors are more compliance oriented than private practitioners.

The practical implications of these findings are potentially significant. The Office of the Legislative Auditor was permitted to bid on municipal audits in Louisiana until 1991, when complaints of unfair competition led the Louisiana Legislature to restrict bidding on municipal audits to private practitioners. This legal shift has improved opportunities in governmental auditing for small audit firms. However, if private practitioners do not place the same emphasis on compliance issues, it may result in lowered audit quality. It is possible that the problems of poor quality governmental audits discovered on the federal level in the 1980s will threaten the value and reliability of audited financial statements at the local level of government.

Conversely, the Yellow Book requires auditors to report noncompliance only if it is material to the financial statements. If legislative auditors report all instances of noncompliance, they may be exceeding the requirements and even the intent of GAS reporting standards. Users of audit reports may have difficulty extracting the most important pieces of information from an all-inclusive report. Future audit standards and interpretations should clarify the relationship between materiality and noncompliance as well as the role of
significant, but nonmaterial, items in the compliance report.

**DIRECTIONS FOR FUTURE RESEARCH**

The differences between the haphazard sample and the experimental results are striking and suggest the need for further investigation of actual reporting decisions as well as further experimentation. It would be worthwhile to select a random sample, or even the full population of municipal annual reports, and look for factors that may be influencing reporting decisions. Such factors could include those tested in this study as well as others investigated in future experiments.

The results of this study indicate that employment sector plays a role in the differences in reporting decisions. Future research should examine whether this difference is due to subspecialty knowledge, uniform management, approaches to compliance reporting in general, or some combination of the three. The answer to this question would surely raise additional questions, such as how sub-specialty knowledge is attained and how it can be measured. Discovering the extent to which sub-specialty knowledge in combination with other personal factors affects judgments in governmental auditing as well as other accounting disciplines will enable researchers to work with practitioners to improve the quality of public accounting.
If a different view of the role of governmental auditors drives the finding of group differences, the profession must consider which approach best serves the needs of financial statement users and provide more specific guidance. Finally, if the result stems from the uniform training and management, it may be necessary for the AICPA to standardize CPE in the governmental field to overcome the historically poor quality of governmental audits.
REFERENCES


APPENDIX

CASE MATERIALS
Dear Colleague:

The Legislative Auditor is cooperating with a Louisiana State University graduate student in conducting a study of governmental auditors' compliance reporting decisions. I would like to encourage your participation in this project. This study is for a doctoral dissertation designed to explore which factors may or may not influence decision-making in municipal auditing. Data for this study is being compiled (at no cost to the state) by Ms. Linda Kidwell, a Board of Regents fellow at Louisiana State University.

Ms. Kidwell requests that you complete the exercise in the enclosed booklet. Please forward your responses directly to her in the self-addressed envelope. Data gathered in this study will be reported to interested parties only in summary form, and no individual responses will be reported to this office. Names of final participants will also be kept confidential by Ms. Kidwell.

Any questions regarding this study should be directed to Linda Kidwell at (504) 767-3235. If you would like a copy of the results of this study, please mark "yes" on the enclosed postcard. Thank you for your assistance.

Sincerely,

[Signature]

Daniel G. Kyle, CPA
Legislative Auditor

DGK/LK/db

Enclosures

Kidwell
INTRODUCTION

You have been engaged as the external auditor for the town of Pemberton, Louisiana. This exercise will ask you to make compliance reporting decisions as part of your audit of Pemberton. The law considered in this exercise is the Louisiana Local Government Budget Act. Pemberton may or may not be in violation of the Act.

Pemberton has a population of 4600. According to the 1990 U.S. Census, a town of this size would be larger than approximately 78% of the towns in Louisiana. Pemberton has a mayor-council form of government. Pemberton has annual General Fund expenditures exceeding $250,000, making it subject to the Louisiana Local Government Budget Act. Over the past ten-year period, approximately 75% of Pemberton’s General Fund revenues have come from local sales taxes. Although state grants and shared revenues have been significant for funding capital projects, they have accounted for less than 5% of the General Fund revenues in the past ten years.

The state of Louisiana requires Pemberton to submit audited GAAP-basis financial statements every year. The town receives less than $100,000 in federal aid each year, so a Single Audit is not necessary. Therefore, the audit is to be performed in accordance with Government Auditing Standards.

Sixteen cases have been developed concerning your audit of Pemberton. Please consider each case independently. The next page of this booklet contains instructions, followed by a description of seven possible conditions that might exist in each of the cases. Each case contains a different set of three of these seven conditions. The identifying words for each condition have been highlighted within the descriptions.

A summary of the Louisiana Local Government Budget Act is included with this exercise. You may refer to the summary of the Act as well as the list of conditions as often as you feel necessary.
INSTRUCTIONS

This exercise contains sixteen audit cases for the hypothetical town of Pemberton, Louisiana. For each case you will be asked for your compliance reporting decision regarding the Louisiana Local Government Budget Act. Record your answers to each of the questions by circling the number that reflects your answer. Please answer all questions for each case and for the brief questionnaire that follows. Consider each case independently. Please do not refer back to cases you have already completed, and do not discuss the exercise with your colleagues, as this may affect their responses to the cases.

There are no right or wrong answers. Your responses will be kept strictly confidential. Your individual responses will not be discussed with anyone, and any data gathered from this exercise will be presented only in summary form.

When you have completed the exercise, please return it in the enclosed stamped, pre-addressed envelope. In addition to returning the cases, please send your name and address separately on the enclosed postcard, indicating whether or not you would like to receive a summary of the results when this study has been completed.

Thank you very much for your assistance with this project.
POSSIBLE CONDITIONS FOR EACH CASE

In auditing for compliance with the Louisiana Local Government Budget Act, you have discovered that Pemberton EXCEEDED its budgeted General Fund expenditures BY 4% WITHOUT AMENDING THE BUDGET.

In auditing for compliance with the Louisiana Local Government Budget Act, you have discovered that Pemberton EXCEEDED its budgeted General Fund expenditures BY 7% WITHOUT AMENDING THE BUDGET.

In auditing for compliance with the Louisiana Local Government Budget Act, you have discovered that Pemberton EXCEEDED its budgeted General Fund expenditures BY 16% WITHOUT AMENDING THE BUDGET.

As far as you are able to determine, EMPLOYMENT LEVELS and TAX REVENUES in Pemberton are expected to be FAIRLY STABLE in the foreseeable future.

You have determined that two years ago, a MAJOR EMPLOYER in the area CLOSED. Indications are that this closure has led to REDUCED LOCAL SPENDING and a SERIOUS EROSION IN SALES TAX REVENUES.

The MAYOR of this town is a POPULAR INCUMBENT serving his third term.

During the year for which you are auditing the financial statements, the voters of Pemberton elected a NEW MAYOR who defeated the incumbent in a HIGHLY COMPETITIVE ELECTION.
The following summary contains excerpts from the Louisiana Local Government Budget Act (hereafter "The Act"). This summary is not all-inclusive, but contains the information necessary to complete the experiment.

The Act applies to all political subdivisions in the state with a general fund with proposed expenditures totaling at least $250,000.

Each political subdivision must prepare a comprehensive budget presenting the complete financial plan for the ensuing fiscal year for each fund.

The budget document must include a consolidated statement showing beginning fund balances, estimates of receipts and revenues, recommended expenditures, and estimated ending fund balances.

Political subdivisions with total proposed expenditures of at least $250,000 must afford the public an opportunity to participate in the budgetary process prior to adoption of the budget.

When there has been a change in operations, such that actual expenditures plus projected expenditures within a given fund are exceeding the budget by five percent or more, the governing authority must adopt a budget amendment in an open meeting.

The adopted budget and any duly authorized amendments constitute the authority of the officers to incur liabilities and authorize expenditures.

In the event of violations of The Act, any person may commence a suit for mandamus, injunctive, or declaratory relief to require compliance with the provisions of this Act.
SAMPLE CASE A

In auditing for compliance with the Louisiana Local Government Budget Act, you have discovered that Pemberton EXCEEDED its budgeted General Fund expenditures BY 4% WITHOUT AMENDING THE BUDGET.

As far as you are able to determine, EMPLOYMENT LEVELS and TAX REVENUES in Pemberton are expected to be FAIRLY STABLE in the foreseeable future.

The MAYOR of this town is a POPULAR INCUMBENT serving his third term.

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In light of the information you have, would you report noncompliance with the Local Government Budget Act?

YES NO

If you answered YES, where would you report noncompliance with the Budget Act, if anywhere? (Circle as many as apply.)

1. Oral communication with the client
2. Management letter
3. Footnotes to the financial statements
4. Compliance report
5. Opinion on the financial statements

Do you think another governmental auditor might make a different reporting decision?

YES NO UNSURE

If you answered YES or UNSURE, where do you believe another auditor would report noncompliance? (Circle as many as apply.)

1. Oral communication with the client
2. Management letter
3. Footnotes to the financial statements
4. Compliance report
5. Opinion on the financial statements
6. No communication
SAMPLE CASE B

In auditing for compliance with the Louisiana Local Government Budget Act, you have discovered that Pemberton EXCEEDED its budgeted General Fund expenditures BY 7% WITHOUT AMENDING THE BUDGET.

You have determined that two years ago, a MAJOR EMPLOYER in the area CLOSED. Indications are that this closure has led to REDUCED LOCAL SPENDING and a SERIOUS EROSION IN SALES TAX REVENUES.

The MAYOR of this town is a POPULAR INCUMBENT serving his third term.

In light of the information you have, would you report noncompliance with the Local Government Budget Act?

YES

NO

If you answered YES, where would you report noncompliance with the Budget Act, if anywhere? (Circle as many as apply.)

1. Oral communication with the client
2. Management letter
3. Footnotes to the financial statements
4. Compliance report
5. Opinion on the financial statements

Do you think another governmental auditor might make a different reporting decision?

YES

NO

UNSURE

If you answered YES or UNSURE, where do you believe another auditor would report noncompliance? (Circle as many as apply.)

1. Oral communication with the client
2. Management letter
3. Footnotes to the financial statements
4. Compliance report
5. Opinion on the financial statements
6. No communication
SAMPLE CASE C

You have determined that two years ago, a MAJOR EMPLOYER in the area CLOSED. Indications are that this closure has led to REDUCED LOCAL SPENDING and a SERIOUS EROSION IN SALES TAX REVENUES.

During the year for which you are auditing the financial statements, the voters of Pemberton elected a NEW MAYOR who defeated the incumbent in a HIGHLY COMPETITIVE ELECTION.

In auditing for compliance with the Louisiana Local Government Budget Act, you have discovered that Pemberton EXCEEDED its budgeted General Fund expenditures BY 16% WITHOUT AMENDING THE BUDGET.

In light of the information you have, would you report noncompliance with the Local Government Budget Act?

YES NO

If you answered YES, where would you report noncompliance with the Budget Act, if anywhere? (Circle as many as apply.)

1. Oral communication with the client
2. Management letter
3. Footnotes to the financial statements
4. Compliance report
5. Opinion on the financial statements

Do you think another governmental auditor might make a different reporting decision?

YES NO UNSURE

If you answered YES or UNSURE, where do you believe another auditor would report noncompliance? (Circle as many as apply.)

1. Oral communication with the client
2. Management letter
3. Footnotes to the financial statements
4. Compliance report
5. Opinion on the financial statements
6. No communication
VITA

Linda Achey Kidwell was born in New York City on January 15, 1963. After spending her first 13 years of life in Princeton, New Jersey, she moved to Greensboro, North Carolina in 1976. She graduated from Grimsley Senior High School in 1980. Linda attended Smith College, where she earned her Bachelor of Arts degree in Geology in 1984. She remains an ardent supporter of Smith and tells every young woman she meets to go there.

In 1988, she entered the PhD program in accounting at Louisiana State University. In the spring of 1990, she met Roland Kidwell in a multivariate statistics class. She and Roland were married on December 28, 1991. They now live in Shreveport, Louisiana with their two cats, Ms. Duck and Clarence. Linda successfully defended her dissertation on August 3, 1993.
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Linda Achey Kidwell

Major Field: Accounting

Title of Dissertation: The Impact of Budget Variance, Fiscal Stress, Political Turnover, and Employment Sector on Compliance Reporting Decisions

Approved:

Bart P. Hartman
Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

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Date of Examination:

August 3, 1993