

AUDIT QUALITY AND THE EXPECTATIONS
GAP: JURORS', JUDGES' AND AUDITORS'
PERCEPTIONS

By

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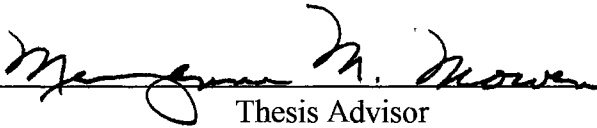
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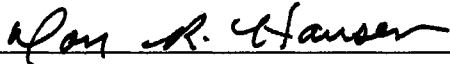
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the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
December 1995

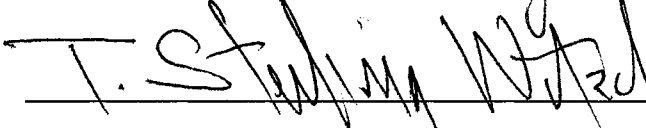
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ACKNOWLEDGMENTS

As I complete this portion of the journey that started where "two roads diverged", I know that I could not have traveled this far alone. I sincerely thank my committee chairperson, Dr. Maryanne Mowen for her guidance and perseverance. I also express my heartfelt appreciation to Dr. T. Sterling Wetzel, Dr. Don Hansen and Dr. Goutam Chakraborty for their invaluable contributions.

Several individuals provided serious "roadside assistance" during this process. I sincerely thank Judge Mackey Hancock and Sherry Hensley for their generous commitment to an endeavor for which the only recompense is my utmost gratitude. I also thank Dr. Lanny Chasteen and the public accounting firms who provided their assistance. I especially thank Jenny Rutledge for her many cheerful contributions.

My family has been the source of constant encouragement and support. I thank my father and stepmother, John and Kathy, for helping me jump the hurdles. I thank my mother and stepfather, Sue and Don, for their unconditional belief. I thank my father and mother-in-law, Clarence and Maxine, for their friendship and support. I thank my nephew and niece, Brent and Brandi, for reminding me of what's really important. I thank my extended family, Lori, Kyle and Nancy for understanding and encouraging my decision to start down this road. Most of all, I thank my dear Rick, whom I met along the way, for making "all the difference".

TABLE OF CONTENTS

Chapter		Page
1.0	INTRODUCTION	1
1.1	Background	1
1.2	Audit Litigation and Audit Quality	2
1.3	Purpose of the Study	3
1.4	Significance of the Study	4
2.0	RELATED RESEARCH	6
2.1	Expectations Gap Research	6
2.2	Narrowing the Expectations Gap	9
3.0	MODEL AND HYPOTHESES DEVELOPMENT	11
3.1	The Brunswick Lens Model	12
3.2	Audit Quality Cues	15
3.3	Audit Quality Perceptions	16
	3.3.1 Audit Quality Perceptions and Audit Cues	18
	3.3.2 Differences in Cue Utilization	20
3.4	Damage Award Assessments	21
	3.4.1 Expected Audit Quality	21
	3.4.2 Measuring Damage Awards	23
4.0	RESEARCH DESIGN	27
4.1	Introduction	27
4.2	Subjects	27
4.3	The Pilot Test	29
4.4	The Experimental Task	30

Chapter	Page	
4.5	Independent Variables	31
	4.5.1 Expected Audit Quality - AQ_e	32
	4.5.2 The Plaintiff's Loss - L_t	33
	4.5.3 The Auditor's Compliance - C_t	33
4.6	Dependent Variables	37
4.7	Experimental Design	37
5.0	DATA ANALYSIS AND RESULTS	41
	5.1 Manipulation Checks	41
	5.2 MANOVA - Audit Quality Perceptions	43
	5.2.1 Compliance and Group Interaction	46
	5.2.2 Loss and Group Interaction	46
	5.2.3 Hypothesis Testing	50
	5.3 Regression Analysis - Damage Awards	52
6.0	SUMMARY AND CONCLUSIONS	59
	6.1 Discussion	59
	6.1.1 Perceptions of Audit Quality	59
	6.1.2 Audit Dissatisfaction	61
	6.1.3 Implications	61
	6.2 Contributions	62
	6.3 Limitations and Future Research	63
	REFERENCES	64
	APPENDICES	
	APPENDIX A - INTRODUCTORY PRESENTATION	68
	APPENDIX B - EXPECTATION MEASURES	69
	APPENDIX C - TEST INSTRUMENT	70
	APPENDIX D - SCENARIOS	76
	APPENDIX E - DEPENDENT VARIABLE MEASURES	80

LIST OF TABLES

Table	Page
1. Sample Demographics	28
2. Correlation Analysis - Expectations Construct 1	34
3. Correlation Analysis - Expectations Construct 2	34
4. Correlation Analysis - Expectations Construct 3	35
5. Principal Components Analysis Expectation Measures	36
6. Audit Quality Perceptions Correlation Analysis of Multiple Measures	38
7. Damage Awards Correlation Analysis of Multiple Measures	39
8. Manipulation Checks	42
9. Audit Quality Perceptions Means and Standard Deviations	44
10. Audit Quality Perceptions MANOVA - Omnibus Test Statistics	45
11. Audit Quality Perceptions Analysis of Interactions	48
12. Audit Quality Perceptions Contrast Analysis	49

Table		Page
13.	Expected Audit Quality Means and Standard Deviations	53
14.	Damage Awards Means and Standard Deviations	54
15.	Damage Awards Regression Analyses	57
16.	Damage Awards - Regression Analysis Judicial Evaluators vs. Auditors	58

LIST OF FIGURES

Figure		Page
1.	The Brunswick Lens Model	12
2.	Audit Quality - Actual and Perceived	14
3.	Audit Quality Perceptions, Expectations and Damage Award Assessments	25
4.	Compliance X Group Interaction	47
5.	Loss X Group Interaction	47

1.0 INTRODUCTION

1.1 Background

Virtually since the time auditing received its mandate in the 1930's, references have been made to an "expectation gap" existing between users of audit information and auditors. One common definition refers to the gap as the difference between users' expectations regarding the auditors' assurance of the financial statements and the responsibility that the auditing profession is willing to assume (Kell and Boynton 1992). The expectation gap includes: the role or function of auditing, audit communications and reports, the structure and regulation of the provision of audit services, and "the level of quality in the performance of audits" (Humphrey, Moizer and Turley 1993).

One manifestation of the expectation gap is the response of stakeholders (parties having a financial interest in audited firms) to financial loss. When stakeholders experience losses related to their financial interest, and the stakeholders believe those losses are related to the quality of the audit, their resultant dissatisfaction is often manifested in litigation alleging audit failure. The more than fivefold increase in litigation filed annually since 1960 (Amhowitz 1987) aptly demonstrates the response of these stakeholders to the expectation gap. In fact, Berton and Schiff (1990) have reported that major lawsuits against public accounting firms worldwide total more than \$2 billion in requested damages, with claims exceeding the total capital of major accounting firms by a factor of four.

While litigation reflects an expectation gap between stakeholders and auditors, litigation outcome may reveal an expectation gap between judicial evaluators (jurors and

judges) and auditors. This potential expectation gap between judicial evaluators and auditors is important for two reasons. First, unlike most stakeholders, judicial evaluators are directly exposed to evidence regarding the audit process, evidence that may mitigate the stakeholder's allegation. Second, while virtually any external user can allege audit failure, determinations of audit culpability and liability are left to judicial evaluators who are asked to impartially assess the merit of the allegation. Thus, it is the role of jurors and judges to act on society's behalf to determine overall satisfaction or dissatisfaction with auditing services. This determination, in turn, sends a message to potential litigants regarding the merit of future claims.

1.2 Audit Litigation and Audit Quality

Judicial evaluators and auditors may hold differing views regarding the quality of the contested audit. Auditors generally define quality in terms of conformance with generally accepted auditing standards (GAAS), or the appropriateness of the decisions made during the audit process. The popularity of this view among auditors lies in its recognition of the uncertainty associated with the audit process. The audit, by its nature, entails an examination of something less than 100% of the evidence supporting the financial statements. Furthermore, auditors use their professional judgment based on information available *at the time* to form an opinion of the fair presentation of the financial statements. As a result, auditors believe that the audit process is no guarantee of either the audit or of business success or failure. When quality is defined in this manner, it is possible that stakeholders may experience a loss even when the quality of the audit was high, or a stakeholder may experience no loss (or even a gain) when the

quality of the audit was low.

Judicial evaluators may define audit quality differently. Research has shown that the knowledge of a subsequent event, such as a stakeholders' loss, can influence evaluations of decision makers, such as auditors. This influence is present even though the decision maker was acting under conditions of risk at the time the decisions were made. As a result, judicial evaluators may perceive a stakeholder's loss as indicative of a low quality audit, without regard to the appropriateness of the decisions made during the audit.

Auditors believe that too much emphasis has been placed on stakeholders' financial losses and concomitantly, too little emphasis on the auditors' compliance with standards. They contend that this overemphasis is due to a lack of familiarity with the auditors' role and the audit process. Accordingly, the profession has responded to the tremendous increases in litigation and regulatory concerns with significant resources and efforts aimed primarily at "educating the public" (Kaplan 1987). Nine new Statements on Auditing Standards (SASs) were released to address the expectation gap. Many of these SASs focused on changing the auditors' report to provide a better understanding of the audit process. Much of the corresponding auditing research has focused on the seeming ineffectiveness of these new SASs.

1.3 Purpose of the Study

To date, no theoretical framework has emerged which describes the combined effects of expectations, the audit process and the stakeholder's loss on evaluators' perceptions of audit quality and assessments of damage awards. The extent to which

these effects may exacerbate or mitigate each other has not been theoretically examined or empirically tested. Similarly, there has been no comparison of these combined effects between auditors and judicial evaluators.

The purpose of this study is threefold. First, this study formalizes the relationships between evidence regarding the audit and evaluators' perceptions of audit quality. Second, this study formalizes the relationship between evaluators' audit quality perceptions and expectations. Third, this study develops a measure of the expectation gap.

1.4 Significance of the Study

In addition to providing a theoretical framework in which efforts to narrow the expectation gap can be analyzed, results of this study provide useful evidence to both auditing practitioners and regulators. First, this study indicates that judicial evaluators and auditors accord significantly different weights to various cues about audit quality. Although auditors perceive auditing standards as providing a "benchmark" of quality, judicial evaluators place significantly less weight on compliance with standards. Similarly, whereas auditors may discount the amount of the stakeholder's loss in forming a perception of audit quality, judicial evaluators accord significantly more weight to this evidence.

Second, this study identifies the constructs underlying the concept of *a priori* expectations of audit quality. The results indicate that expectations, among these constructs and overall, differ significantly among groups of auditors, jurors and judges.

Third, this study indicates that *a priori* expectations and perceptions of audit

quality are important factors in assessing satisfaction with audits. Specifically, this study suggests that perceptions of audit quality are a significant factor for both auditors and judicial evaluators in assessing damage awards. Expectations, on the other hand, play a different role for auditors and judicial evaluators in assessing damage awards.

The remainder of this paper is presented in four sections. Section 2.0 provides an overview of the related literature. Section 3.0 describes the model and develops the hypotheses. Section 4.0 describes the sample and experiment, while section 5.0 discusses the data analysis. Finally, section 6.0 provides a discussion of the contributions and limitations of this study.

2.0 RELATED RESEARCH

References to and anecdotal evidence of the expectation gap are numerous in the accounting literature. Related research in accounting has generally revolved around the existence and nature of the expectation gap and the profession's efforts to narrow the gap. The following sections provide an summary of these areas of the literature as they relate to perceptions of audit quality and liability.

2.1 Expectation Gap Research

Research on the expectation gap has concluded that all factors comprising the audit process are not of equal importance to auditors and other interested parties, including judicial evaluators. In particular, research has indicated that judicial evaluators' expectations of the auditing profession tend to exceed auditors' expectations. Some limited research has explored the relationship between expectations and audit liability.

In a survey of approximately 935 British chartered accountants, financial directors, investment analysts, bankers and financial journalists, Humphrey, Moizer and Turley (1993) explored expectations and perceptions related to the auditors' functions, audit reports, audit structure and regulation and the quality of audit services provided among these various groups. Not unexpectedly, the authors found that the user groups and the auditors shared very different perceptions of the audit services provided and very different expectations of the service which should be provided. Specifically, when responding to the statement that "too much is expected of auditors by the investing community", approximately 74% of the auditors agreed, 58% of the financial directors

agreed and only 33% of the user groups agreed. Additional questions involving performance attributes, (ability to cope with risk and uncertainty, diagnosing problems, reporting truthfully, etc.) yielded similar results, with user groups rating auditors significantly lower than auditors. Participants were also surveyed for a bias against similar professional groups, namely solicitors and tax inspectors, relative to the performance attributes. These findings did not indicate a general downward biasing against professionals, supporting the notion that the expectation gap is specific and significant to the auditing profession.

Reckers, Kneer and Jennings (1984) also discovered expectation gap differences between members of the judicial system and auditors when defining materiality. Their study, involving 93 lawyers and judges and 73 auditors found significant differences between the groups in the expected standards of materiality. The results of this study indicated that lawyers/judges significantly disagreed with auditors regarding both what items should be disclosed and the need for explicit materiality guidelines. While a minority of auditors surveyed desired more explicit standards of materiality, a majority of lawyers and judges preferred increased explication.

In a follow up to their 1984 study, Jennings, Kneer and Reckers (1993) explored the effect of audit decision aids on jurists' perceptions of audit firm liability in cases of audit failure. Using a sample of 82 U.S. state general jurisdiction judges, the authors found that when the audit firm used decision aids to establish materiality, jurists were willing to adopt the firm's guidelines as a standard against which to evaluate audit performance.

Relationships noted between the jurists' *a priori* beliefs concerning the role and function of auditors and the jurists' determinations of audit liability were among the other interesting results of the Jennings, Kneer and Reckers (1993) study. In particular, there was a high inverse correlation between the belief that management was responsible for the audited financial statements and determinations of liability. Thus, when jurists perceive that management has little responsibility, audit liability is higher. There was also a high correlation between the preconceived belief that auditors are responsible for actively searching for fraud and determinations of liability. And finally, there was a high correlation between the belief that auditors can absorb the liability loss and the determination of liability, lending credence to the "deep pockets" theory.

Anderson, Lowe and Reckers (1993) explored the effects of hindsight bias and the expectation gap on judges' and auditors' determinations of audit liability. Hindsight bias refers to an individual's "overestimation of the extent to which a realized outcome could have been anticipated" (Anderson, Lowe and Reckers 1993). Using 65 judges and 58 auditors, the authors compared the subjects' evaluations of auditor performance and the effect of outcome information on these evaluations. Results indicated that judges' evaluations of auditor performance were lower than auditors, indicative of an expectation gap, and that outcome information significantly affected the evaluations. However, this study made no attempt to compare the relative importance of the judges' expectations and the outcome information. Furthermore, this study did not address the auditors' compliance with professional standards.

2.2 Narrowing the Expectation Gap

Research related to narrowing the expectation gap has focused primarily on reactions of users and jurists to the new report format included in the expectation gap SASs. Among other things, the new reports briefly describe the audit process and spell out the responsibilities of both management and the auditor. Research results comparing the new and old report formats have suggested some success in clarifying the roles of the auditor and management (Kelly and Mohrweis 1989; Miller, Reed and Strawser 1990). However, this research has also indicated that other aspects of the audit process remain unclear. This suggests that auditors have been unsuccessful at changing the expectations and/or perceptions of users and jurists. The small amount of research addressing the effect of the new report format on users' actions has also indicated that the new report is seemingly ineffective at changing users' behavior.

Geiger (1991 in Jaenicke and Wright 1994) surveyed bankers in a study of loan applications, accompanied by either a new or an old audit report. Believing that the new reports should not affect users' confidence in the quality of the audit, but should clarify the uncertainty inherent in the audit process, Geiger reviewed both confidence levels and loan decisions between the two reports. As expected, no significant differences in the users' level of confidence in the two reports was noted. However, there were also no significant differences in loan decisions made by the bankers due to the differing reports. These results indicate that the new report format has little impact on the expectations, perceptions or actions of these external users.

Pringle, Crum and Swetz (1990) investigated the effect of elimination of the

"subject to" opinion advanced by SAS No. 34. The SAS No. 34 "subject to" opinion became obsolete with the new report format. In this study, different groups were asked to evaluate audit reports for the same companies, where one group's audit reports were in compliance with SAS No. 34 and the others were in compliance with the new report. Results of this study indicate that participants do not perceive any significant differences between the two opinions.

Brougham and Parker (1991) investigated a similar question with respect to the effect of the wording of the new opinions on juror assessments of liability in audit failure suits. Like the previous study, the results indicate that the changes in the wording of the audit opinion have "no decision usefulness in the context of third party audit failure suits".

3.0 MODEL AND HYPOTHESES DEVELOPMENT

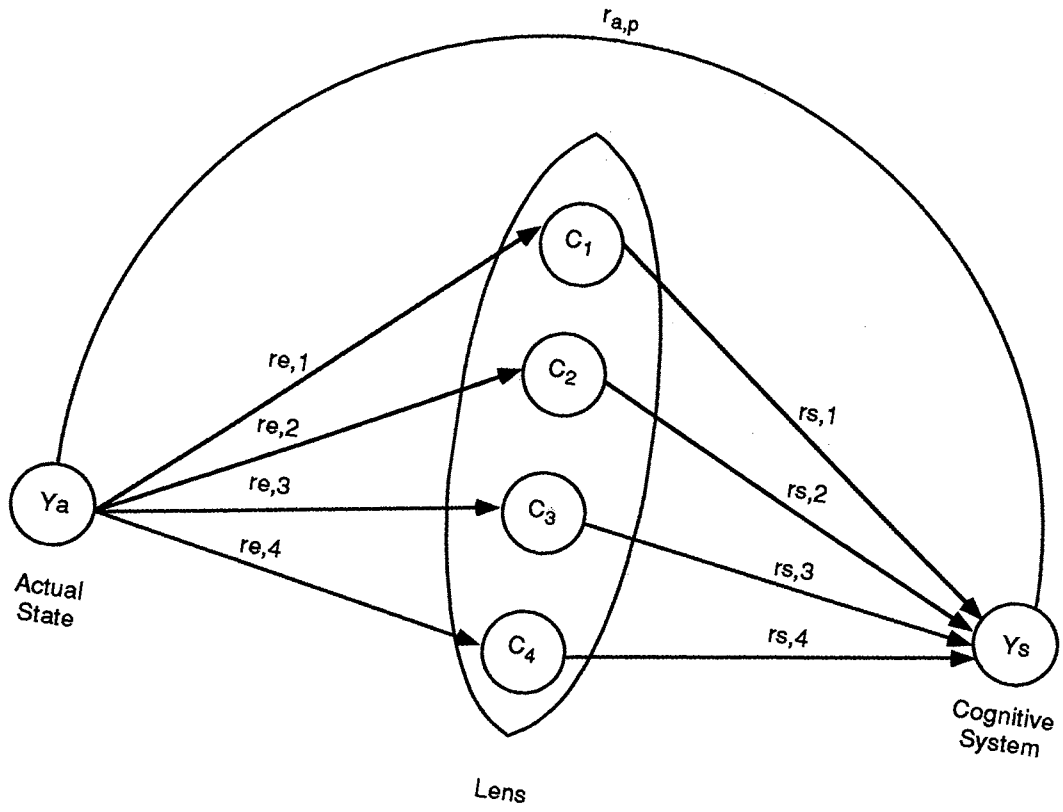
The model developed herein is a descriptive model of evaluators' perceptions of audit quality and subsequent assessments of damage awards in cases involving alleged audit failure. For purposes of this model, evaluators include jurors, judges and auditors; judicial evaluators include jurors and judges. The model makes no attempt to normatively define the current or future role of auditing. Instead, this model focuses on: 1) describing the effects of evidence about the audit on evaluators' perceptions of audit quality; 2) comparing these effects among auditors and judicial evaluators; and 3) describing the combined effects of perceptions and expectations on assessments of damage awards.

3.1 The Brunswick Lens Model

The Brunswick Lens Model (BLM) provides a framework that accomplishes two tasks. First, the BLM is employed to describe how individuals combine evidence to form perceptions of audit quality. (Note that the relationship between types of evidence and these perceptions is theoretically developed in the following sections.) Second, the BLM is used to demonstrate how utilization of audit evidence may differ across groups of evaluators.

The BLM is a framework for describing judgment or evaluation tasks. As demonstrated in Figure 1, the original model shows the world as divided into 2 symmetric states - the environmental and the cognitive system. These systems are shown on the left and right sides, respectively, of Figure 1. Cues (C1-C4 on Figure 1) exist which, when objectively measured, can be used to predict an actual state (Y_a) which

Figure 1
The Brunswick Lens Model



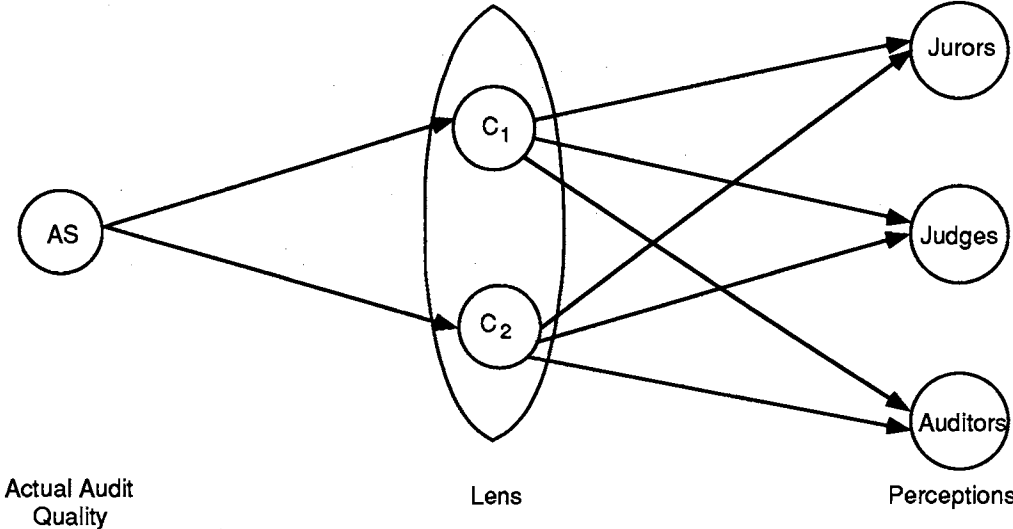
exists in the environmental system. Correspondingly, on the cognitive side of the model, these cues are available to decision makers to form perceptions or evaluations of the actual state (Y_s). However, due to the nature of the cognitive environment, individuals see these cues through a "lens" which may distort the perceptions of the actual state.

The BLM uses linear regression to predict the actual state (Y_a) based on objective measurements of the cues, and to predict the evaluative state (Y_e) based on the subjective combinations of the cues. The accuracy of the judgments or perceptions is measured by the correlation - denoted r_{ap} in Figure 1 - between the actual state and the judgment or perception. This correlation may be markedly low when the relationship between the actual state and the cues is not well defined (low cue validity - denoted $r_{e,i}$), or when decision makers do not combine the cues in an optimal manner (low cue utilization - denoted $r_{s,i}$).

Hammond, Stewart, Brehmer and Steinmann (1979) broadened the BLM model by introducing a triple system case in which two persons evaluate one task. This triple system case allows for comparisons of cue utilization and differences between the individuals on the cognitive side of the model. Licata, Mowen and Chakraborty (1994) expanded the model further to allow for comparisons across multiple groups. This expanded version of the BLM is utilized for purposes of this model's development.

As demonstrated in Figure 2, in the case of an alleged audit failure, actual audit quality (AQ_a) is the state that exists in the environmental system. Evidence regarding various dimensions of the audit provides cues about the quality of the audit that can be

Figure 2
Audit Quality
Actual and Perceived



used to measure AQ_a . The combination of these cues by evaluators on the cognitive side of the model results in a subjective perception of audit quality (AQ_p). Cue utilization, or the weight attributed to each cue, is represented by $r_{s,i}$. Figure 2 shows that the perceptions of audit quality based on the same cues can be measured for jurors, judges and auditors. Comparisons regarding cue utilization can then be made across the groups. This model addresses the cue utilization and perceptions on the cognitive side of the BLM framework. Measures of cue validity and the correlation between the actual and cognitive states of the BLM are not addressed.

3.2 Audit Quality Cues

Audit quality is multidimensional in nature, where the dimensions may include items such as the industry expertise of the audit team, the complexity of the audit, audit procedures utilized, etc. (Sutton 1993 and Sutton and Lampe 1991). These dimensions serve as the audit quality cues in the BLM framework. In a case of alleged audit failure, the cues to which most evaluators will be exposed involve the event prompting the allegation and the audit process. For purposes of this study, these cues have been operationalized as the stakeholder's (complainant's) financial loss and the auditor's compliance with professional standards.

The complainant's financial loss is considered crucial in modeling evaluators' perceptions. The mere allegation of audit failure implies that the complainant has suffered some negative experience related to the audited firm. Under common law and the securities laws, complainants are allowed to sue for monetary damages at least equal to the amount of their losses.

Compliance with professional standards is often offered by auditors as evidence of the appropriateness of the decisions made during the audit. GAAS sets forth the minimum requirements for the conduct of an audit, so compliance with GAAS is an integral part of the "due care" defense available under common law and the "due diligence" defense available under the securities laws (Kell and Boynton 1992). Where GAAS may be vague with respect to a certain issue (such as determining materiality or specific risks), compliance with firm guidance can be offered as evidence that the firm's requirements went above and beyond the minimum requirements of GAAS. For example, the Jennings, Kneer and Reckers (1993) study demonstrated that jurors adopted the audit firm's guidelines as a standard against which audit performance was evaluated.

3.3 Audit Quality Perceptions

Evaluators' perceptions of audit quality (AQ_p) are represented as a function of the audit cues and other pertinent information presented in the case, such as auditor reputation, audit firm size and familiarity with the client's industry. Using the audit cues previously identified, perceived audit quality is functionally represented in equation (1) as follows:

$$AQ_p = f(L, C, Z) \quad (1)$$

where

AQ_p = evaluator's perception of audit quality

L = cue (evidence) regarding the complainant's financial loss related to the audited firm

C = cue (evidence) regarding the auditor's compliance with GAAS and audit firm guidance

Z = vector of information variables (other than evidence regarding the dimensions of the audit service) influencing perceived audit quality

(Note that this is a model of individual perceptions and evaluations. Thus, subscripts for the i th individual are implicit.)

Perceived audit quality, AQ_p , is conceptualized as the evaluators' beliefs about the quality of the audit service provided. AQ_p ranges from very low to very high, where a very high quality perception might reflect the evaluator's belief that the audit was conducted with due care and provided useful, accurate information.

Since this model presumes an allegation of audit failure, L is conceptualized as the absolute value of the loss experienced by the complainant related to the audited firm, such as a decrease in stock value or an uncollectible loan. L ranges from very small to very large.

Compliance with standards (C) is conceptualized as the degree to which the audit complied with professional standards, including GAAS and audit firm guidance. C ranges from very low to very high.

The vector of other information variables, Z , encompasses items such as audit firm size and reputation. While recognizing the possible influence of this vector of information variables, this model does not hypothesize the effect and direction of the variables upon evaluators' perceptions. Furthermore, the effects of this variable were controlled in the experiment discussed in section 4.0.

3.3.1 Audit Quality Perceptions and Audit Cues

A body of research suggests that a phenomenon, called the outcome bias, will impact evaluators. The outcome bias suggests that evaluators base their analysis of decision makers, operating under risk and uncertainty, on the outcome of the decision rather than upon the quality of the decision based on the information available at the time (Baron and Hershey 1988). Mowen and Stone (1992) further define outcome bias as existing in either the "strong" or "weak" form. Outcome bias exists in the "strong" form when evaluators base their evaluation *only* upon the outcome of the decision. Outcome bias exists in the "weak" form when evaluators base their evaluation on *both* the outcome and the appropriateness of the decision. The appropriateness of the decision reflects the decision making process and takes into consideration the risk and uncertainty that existed at the time the decision was made.

In the context of this model, outcome is operationalized as L, the financial loss experienced by the complainant. Either form of the outcome bias suggests that both judicial evaluators' and auditors' perceptions may be influenced by the complainant's loss. Since professional standards provide a benchmark against which the appropriateness of the audit process can be measured, evaluators' perceptions may also be influenced by the degree to which the audit complies with professional standards. In the courtroom, judicial evaluators are usually presented with both evidence regarding the auditors' compliance with standards and arguments that compliance with these standards summarizes the auditors' responsibilities to exercise due care. In their assigned capacity as *impartial* evaluators, jurors and judges are expected to be influenced by this

information regarding the audit process. Given that compliance with these standards is central to auditors' training and education, auditors' perceptions are also expected to be influenced by this measure. Therefore, outcome bias in the weak form is suggested.

With respect to equation (1), outcome bias in the weak form indicates that evaluators' perceptions of audit quality will increase as the absolute value of the complainant's loss decreases. Likewise, evaluators' perceptions of audit quality will increase as the auditors' degree of compliance with standards increases. These relationships are expressed as follows:

$$\begin{aligned}\partial f / \partial L_t &< 0 \\ \partial f / \partial C_t &> 0\end{aligned}$$

Based upon the discussion in section 3.3.1, equation (1) can be constructed for each of the three groups of evaluators. Equation (1) and the preceding discussion lead to the following hypotheses, stated in alternative form:

- H_{A1}: Perceptions of audit quality are negatively related to the complainant's financial loss.
- H_{A2}: Perceptions of audit quality are positively related to the auditors' compliance with generally accepted auditing standards and audit firm guidance.

3.3.2 Differences in Cue Utilization

Differences in cue utilization between the groups of evaluators are also hypothesized. Auditors' education and training support the view that audit quality can be measured in terms of compliance with professional standards and firm guidance. Furthermore, specific knowledge of the amount of uncertainty present in any audit

reinforces the auditors' belief that the audit should be evaluated based on its compliance with standards rather than the complainant's financial position. Thus, the compliance measure is posited to be a more appealing measure of audit quality from auditors' perspectives. The following hypothesis, stated in alternative form, is suggested:

H_{A3}: In forming perceptions of audit quality, auditors' utilization of the compliance cue will exceed jurors' and judges' utilization of the compliance cue.

Conversely, for most judicial evaluators, auditors serve as monitors of management; the audit is seen as providing reassurance that the financial statements prepared by management are accurate. When the auditors fail to adequately monitor management, and stakeholders experience some type of loss, the auditors' compliance with a self-imposed set of standards is generally less relevant. Thus, the quality of the audit to judicial evaluators may be measured in terms of the complainant's loss. While their capacity as impartial evaluators may mitigate this effect, judicial evaluators are expected to rely more on this measure than will auditors in forming perceptions of the audit service. Thus, the following hypothesis, stated in alternative form, is presented:

H_{A4}: In forming perceptions of audit quality, judicial evaluators' utilization of the loss cue will exceed auditors' utilization of the loss cue.

Additional questions of interest which were explored in the experiment, but were not hypothesized include the following:

1. How do jurors' and judges' perceptions of audit quality differ?
2. How do these audit cues interact when evaluated simultaneously?

3.4 Damage Award Assessments

Thus far, this model has only addressed the evaluators' perceptions of audit

quality. In cases of alleged audit failure, however, judicial evaluators must ultimately determine the damages that should be awarded to the complainant. This section combines evaluators' perceptions of audit quality (developed in the preceding section) with evaluators' expectations to develop a model of damage award assessments..

Much of the research involving expectations and perceptions has been found in the marketing literature models of consumer satisfaction/dissatisfaction. Consumer satisfaction has been defined as a "postchoice evaluative judgment" (Day 1984 and Westbrook and Oliver 1991) about the consumer's service experience. Similarly, judicial evaluators must make a "post audit" evaluative judgment of the degree to which the auditors fulfilled their professional responsibilities. Unlike a consumer situation, judicial evaluators are third parties that did not directly experience the audit service, and have no stake in the audit failure claim. However, the judicial system utilizes judicial evaluators to measure *societal* satisfaction/dissatisfaction with the audit service, i.e. while the complainant may allege a loss due to audit failure, the judicial evaluators are responsible for determining the merit or worth of this claim from a more objective point of view. Thus, for purposes of this model, the assessment of damages is seen as a surrogate for the evaluator's *dissatisfaction* with the quality of the audit, such that high (low) dissatisfaction corresponds to high (low) damage awards.

3.4.1 Expected Audit Quality

The satisfaction/dissatisfaction judgment results from a comparison of the perceived level of quality with an evaluative standard (Westbrook and Oliver 1991). Most often the standard is prior expectations of the level of quality. Expectations have

been described as predictions about what a consumer believes is likely to occur in the delivery of the service (Miller 1977, Prakash 1984). Expectations have also been conceptualized as normative standards of how a service should be performed (Swan and Trawick 1980; Prakash 1984; Parasuraman, Zeithaml and Berry 1988). Questions of audit negligence, fraud and securities law violations center on issues regarding what *did* occur during the audit versus what *should* have occurred during the audit. Thus, the normative standards best describe the expectations of "after the fact" evaluators of audit quality.

Studies of consumer perceptions and expectations utilizing a BLM framework have conceptualized expectations as being multidimensional, i.e. an expectation for each cue (Claycomb and Mowen 1992). However, jurors and judges serve as evaluators of a previous service whose knowledge of the intricacies of the audit process is usually limited. Thus, their expectations may not correspond precisely to the dimensions of the audit. Although it is arguable that auditors' expectations may correspond to the dimensions of the audit service, i.e. an expectation for each cue, this model assumes that auditors' expectation of audit quality can be measured comparably. Thus, this model measures expectations as a normative belief about the overall level of audit quality that should have been provided. Like the measure of perceived audit quality, expected audit quality ranges from very low to very high.

3.4.2 Measuring Damage Awards

Much of the research involving service satisfaction/dissatisfaction has linked expectations and perceptions through the disconfirmation of expectations paradigm

(Oliver 1977). According to this paradigm, expectations provide a benchmark against which perceptions are measured. Positive disconfirmation occurs when a service is better than expected; while negative disconfirmation occurs when a service is worse than expected. Expectations then play a contrasting role against the perceived performance, such that the greater the degree of negative (positive) disconfirmation, the lower (higher) the resulting satisfaction.

Parasuraman, Zeithaml and Berry (1985) developed a "gaps model" of service quality, which identified a number of gaps, or differences, between the consumer and the producer of the service. The concept of service quality in this model significantly resembles the concept of satisfaction in the other marketing literature. Using the disconfirmation of expectations paradigm, Parasuraman, Zeithaml and Berry defined service quality evaluations (satisfaction) as the difference between consumer *a priori* expectations and consumer perceptions of the service, i.e. satisfaction is equal to expectations minus perceptions.

One problem with this definition is that it does not adequately address the situations in which expectations, perceptions and satisfaction are all virtually equivalent, i.e. all high or all low. For example, on a scale of 1 to 10, assume an individual has both high expectations (10) and a high perception of the service (9). According to this definition, satisfaction would be very low (equal to 1). In fact, however, the individual will probably be very satisfied since his/her expectations were essentially met. The same problem can be shown to exist anytime there is not a wide variance among expectations, perceptions and satisfaction.

A second problem with this conceptualization is that it does not recognize the direct effect of the perceptions. Researchers, including Churchill and Suprenaut (1982), Oliver and DeSarbo (1988) and Wilton and Tse (1988), have all found that perceptions (perceived service or performance) demonstrates its own effect separate from that of the disconfirmation of expectations. In fact, in their 1988 study of the effect of various items on satisfaction, Oliver and DeSarbo found that the direct effect of the perceived performance on customer satisfaction was second only to the disconfirmation effect.

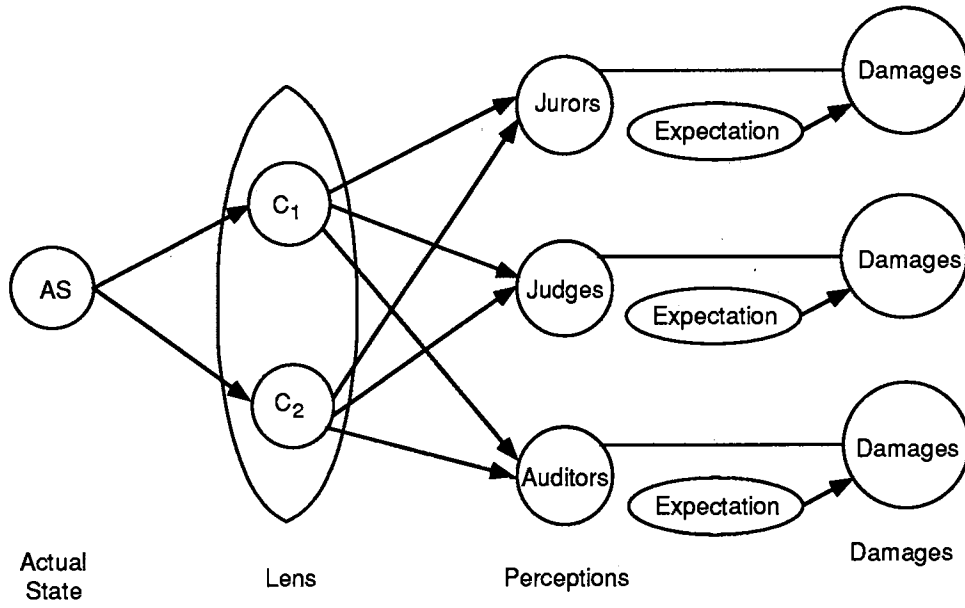
This model suggests that evaluators' assessments of damage awards (DA) are a function of the disconfirmation of expectations (D) and perceived audit quality (AQ_p). Since disconfirmation is a function of expectations and perceptions (D=AQ_p - AQ_e) this relationship is represented more simply as follows:

$$DA = g(AQ_e, AQ_p) \quad (2)$$

This conceptualization is illustrated in the BLM framework in Figure 3. DA represents the degree of the evaluators' dissatisfaction, and the amount of the awards ranges from as low as possible to as high as possible, based on applicable law. Furthermore, this conceptualization allows that damage awards can be decreased both by decreasing expectations and increasing the perceived audit quality (Yi 1993).

Equation (2) suggests that damage awards will decrease as evaluators' perceptions of audit quality increase. Similarly, damage awards will increase as expectations increase, i.e. as disconfirmation of expectations moves from negative to positive. These

Figure 3
Audit Quality
Perceptions, Expectations and Damage Awards



relationships are expressed as follows:

$$\begin{aligned}\partial g / \partial AQ_p &< 0 \\ \partial g / \partial E &> 0\end{aligned}$$

Thus, equation (2) leads directly to the following hypotheses, stated in alternative form:

H_{a5}: Damage awards are negatively related to the perceptions of audit quality

H_{a6}: Damage awards are positively related to the expectations of audit quality.

Additional questions which were explored in the experiment described in the following section, but were not hypothesized include:

1. What are the relative differences in overall expectations among evaluators?
2. What are the relative differences in assessments of damage awards among evaluators?

4.0 RESEARCH DESIGN

4.1 Introduction

This chapter outlines the empirical study that examined the relationships among five variables. These are: perceptions of audit quality (AQ_p), damage awards (DA), the amount of the plaintiff's loss (L_t), the auditors' compliance with professional standards (C_t) and the subject's *a priori* expected audit quality (AQ_e). The remainder of this chapter will describe the subjects, the experimental task, operationalization of the variables and the experimental design.

4.2 Subjects

The model of expectations, perceptions and satisfaction developed in Chapter 3 described the behavior of three different groups: jurors, judges and auditors. Three groups of subjects corresponding to these groups were obtained. Each group is described more fully in the following paragraphs. Summary demographic information regarding each group of subjects is provided in Table 1.

Since the population of jurors is defined rather broadly (e.g. licensed drivers, registered voters), any adult citizens who were not involved in the accounting or legal industries were considered to be viable surrogates for actual jury members. Thirty-four surrogate jurors were obtained through contacting regional employment and civic organizations. In order to participate, all subjects were required to have obtained a high school degree or GED. (This requirement was necessary to ensure that each subject had the requisite reading ability to accomplish the experimental task.) Approximately 52% of the surrogate jurors had an undergraduate degree; 35% had some college, and 12%

TABLE 1
SAMPLE DEMOGRAPHICS

DESCRIPTION	AUDITORS		ATTORNEYS		JURORS	
	#	%	#	%	#	%
Males	30	83%	26	76%	12	35%
Females	6	17%	8	24%	24	65%
Total Subjects	36	100%	34	100%	34	100%
Median Years of Experience	5		13		n/a	
Education Level:						
High School Only					4	12%
Some College					12	35%
Undergraduate Degree	26	72%			13	38%
Graduate Degree	10	28%	34	100%	5	15%

had a high school degree or GED. Juror subjects were paid \$5 as compensation for their participation. (In general, juror subjects required approximately 1 hour to complete the experimental task.)

Attorneys practicing civil law were used as surrogates for judges. The use of attorneys as surrogates was based on a number of factors. First, judges are typically selected from the population of attorneys. Second, judges and attorneys share a common background of legal education and training. Third, movement between attorney and judge status is common. Thirty-four attorneys were contacted through the Bar Association of a large southwestern state. Approximately 79% of this group had practiced law for 10 or more years, and the median experience level for this group was 13 years.

Thirty-six auditors were obtained through four Big Six firms and one regional public accounting firm. Each firm supplied a minimum of 6 participants. All auditors had at least 2 years of experience (i.e., senior level or above). Approximately 35% of this group had 10 or more years of experience in public accounting, and the median experience level for this group was 5 years.

4.3 The Pilot Test

The test instrument was initially pilot tested using students. The purpose of the pilot study was twofold. First, the pilot study was used to test the validity of measures developed specifically for this study. Second, the pilot study was used to search for any deficiencies in the test instrument and to obtain data which could be compared to the rest of the test results. Both students who had and had not yet taken an auditing class were

asked to participate.

The results of the pilot test were used to refine the final test instrument. These results indicated that subjects comprehended the subject matter covered and questions asked in the test instrument. More importantly, the results of the pilot test indicated that the manipulations of the independent variables were successful. Verbal and written feedback from the subjects suggested some minor format changes which were incorporated into the final test instrument.

4.4 The Experimental Task

This experiment was a role-playing task. A single test instrument was developed for this study. The instrument was administered simultaneously to groups of auditors, attorneys and jurors who completed the instrument individually. Subjects proceeded through the instrument following the instructions of the administrator. The same individual served as administrator throughout the experiment.

A short (10 minute) introductory presentation was provided to jurors and attorneys. The written part of this presentation is included in Appendix A. The purpose of the presentation was to briefly define terms such as financial statements, audit, audit workpapers, etc. This presentation was omitted for the auditors. At the conclusion of the introductory presentation, each subject's *a priori* expectations of audit quality were solicited.

Next, each subject read an hypothetical litigation case involving an investment group's allegation of audit failure. This case has been included in Appendix B. This portion of the test instrument was adapted from several actual litigation cases. The case

included a brief introduction instructing the participant as to his/her role (juror, judge, auditor), the fundamental nature of the case (complainant, respondent and allegations), and the opening arguments. Each participant was encouraged to read the case information carefully and take notes if he/she wished.

The subjects were then asked to read nine independent scenarios in which the remaining evidence in the case was presented. These scenarios represent all possible combinations of three levels of two independent variables (discussed in the next section). Three of these scenarios showing each level of the independent variables have been included in Appendix C. Evidence presented by both the complainant and the auditors was included to preserve some of the ambiguity that exists in actual litigation. After reading a scenario, each subject responded to a series of questions representing manipulation checks and measures of the dependent variables. These questions have been included in Appendix D. As each new scenario was introduced, subjects were instructed that they could not refer back to the preceding scenario(s). Each scenario was printed on different colored paper so that the administrator of the test instrument could observe the subjects' progress through the instrument and ensure that these directions were followed.

4.5 Independent Variables

There were three independent variables of interest in this study - expected audit quality (AQ_e), the amount of the plaintiff's loss (L_t) and the degree of the auditors' compliance with professional standards (C_t). AQ_e was measured for each subject at the beginning of the experiment. Both L_t and C_t were manipulated at three levels, resulting

in the nine scenarios which were provided to each subject.

4.5.1 Expected Audit Quality - AQ_e

Evidence of an expectation gap in auditing has previously been obtained through descriptive research involving responses to questionnaires or surveys. For purposes of this study, a measure of expected audit quality was developed. One approach to measuring expectations is to ask a simple question regarding subjects' strength of expectations. However, Spector (1992) suggested that single measures of variables are often unreliable and invalid. Thus, a summated rating scale was developed for this experiment, and was designed to measure the subject's normative beliefs about the quality of service that auditors should provide.

The expectation measure was developed using a sample of 103 students who did not participate in the pilot study. Of these 103 students, 51 were enrolled in an auditing course, while the remainder were enrolled in an accounting principles course. Using a seven-point rating scale, subjects were asked to respond to 18 statements representing four constructs about expectations of auditors and auditing. The four constructs were: the predictive/feedback value of the audit report; the level of assurance provided by the auditors; the conduct of the audit; and the auditors' compliance with professional standards.

Subjects' responses were analyzed using coefficient alpha and the original constructs. The results indicated that only three of the four constructs were perceived as significant (coefficient alpha \geq .50). The fourth construct, the auditors' compliance with professional standards, was insignificant, and was eliminated from the final scale. For

the remaining constructs, if a statement's correlation with the construct was less than 35%, that statement was eliminated. Through this process, the number of statements was reduced to 10. Tables 2-4 present the constructs, statements and the associated statistics.

An orthogonally rotated principal component analysis was also generated on the remaining 10 statements, specifying three constructs. As in the preceding analysis, the same statements loaded on each of the three factors in the principal component analysis. These loadings are presented in Table 5.

As a result, these 10 statements were included in the test instrument used in the experiment. Subjects' responses to these statements were summed and averaged and used as a measure of expectations.

4.5.2 The Plaintiff's Loss - L_t

The amount of the plaintiff's loss, L_t , was presented as the uncollectible portion of the loan due to the investment group, and was manipulated at three levels. This variable was presented as undisputed evidence in each scenario. The levels were chosen based on a review of several actual litigation suits and on Palmrose's (1991) study which indicated that inflation adjusted damages for lawsuits alleging audit failure tend to be less than \$10,000,000. The loss ranged from \$250,000 or 5% of the loan balance (low), to \$2,500,000, or 50% of the loan balance (moderate), to \$5,000,000 or 100% of the loan balance (high).

4.5.3 The Auditor's Compliance - C_t

The auditor's compliance with professional standards, C_t , was manipulated at

TABLE 2
Correlation Analysis - Expectations
Construct 1

CONSTRUCT: PREDICTIVE VALUE	RAW VARIABLES (Cronbach's Alpha = .70)		STANDARDIZED VARIABLES (Cronbach's Alpha = .70)	
	Correlation with Total	Alpha	Correlation with Total	Alpha
Statements				
Audit reports should predict the future financial stability of the audited company.	.48	.65	.49	.65
Auditors should protect the financial security of investors and creditors of the audited company.	.49	.65	.48	.65
Audit reports should predict the future success or failure of the audited company.	.59	.52	.59	.52

TABLE 3
Correlation Analysis - Expectations
Construct 2

CONSTRUCT: AUDITORS' ASSURANCE	RAW VARIABLES (Cronbach's Alpha = .70)		STANDARDIZED VARIABLES (Cronbach's Alpha = .71)	
	Correlation with Total	Alpha	Correlation with Total	Alpha
Statements				
Auditors should ensure that audited financial statements contain no significant deliberate distortions.	.57	.57	.60	.58
Audit reports should provide reasonable assurance about the accuracy of the audited financial statements.	.40	.68	.40	.70
Auditors should ensure that audited financial statements contain no deliberate distortions.	.65	.52	.64	.55
Auditors should ensure that audited financial statements contain no accidental distortions.	.36	.73	.36	.73

TABLE 4
Correlation Analysis - Expectations
Construct 3

CONSTRUCT: AUDIT CONDUCT	RAW VARIABLES (Cronbach's Alpha = .70)		STANDARDIZED VARIABLES (Cronbach's Alpha = .70)	
	Correlation with Total	Alpha	Correlation with Total	Alpha
Statements				
Auditing should be conducted like any other business.	.43	.71	.43	.71
Auditors should conduct the audit in a way that best serves the auditing firm.	.61	.50	.60	.50
Auditors should conduct the audit in a way that best serves the management of the audited firm.	.52	.61	.52	.61

TABLE 5
PRINCIPAL COMPONENTS ANALYSIS
EXPECTATION MEASURES

Expectation Measures	FACTOR LOADINGS		
	Predictive Value	Auditors' Assurance	Audit Conduct
Audit reports should predict the financial stability of the audited company.	0.5519	0.07146	0.06065
Audit should protect the financial security of investors and creditors of the audited company.	0.57419	0.09058	0.17744
Audit reports should predict the future success or failure of the audited company.	0.82616	-0.04690	0.21107
Auditors should ensure that audited financial statements contain no significant deliberate distortions.	-0.04573	0.78535	-0.23567
Audit reports should provide reasonable assurance about the accuracy of the audited financial statements.	-0.06291	0.49491	-0.10276
Auditors should ensure that audited financial statements contain no deliberate distortions.	0.13634	0.80530	0.05053
Auditing should ensure that audited financial statements contain no accidental distortions.	0.14748	0.42864	0.15388
Auditors should be conducted like any other business.	0.21156	0.09478	0.46624
Auditors should conduct the audit in a way that best serves the auditing firm.	0.04238	-0.15679	0.5519
Auditors should conduct the audit in a way that best serves the management of the audited firm.	0.39288	-0.13079	0.57404

three levels (low, moderate and high). This variable was operationalized by arguable evidence regarding the auditor's compliance with six professional standards. These six standards were chosen based on a review of actual litigation cases and Palmrose's (1991) study. Based on this review, allegations of audit failure generally involved at least one of these six standards. In each scenario, subjects were provided with a summary of the complainant's and, then, the respondent's arguments regarding the auditors' compliance with the standard. The three levels of C_i were achieved by altering the number of standards which were contested and the strength of the testimony.

4.6 Dependent Variables

The dependent variables were audit quality perceptions (AQ_p) and damage awards (DA). Two measures of each dependent variable were obtained. These variables were measured after each subject had completed reading a scenario, and before the subject proceeded to the next scenario. Perceived audit quality was measured on a seven-point rating scale ranging from "very low" to "very high". Damage awards were measured using both a seven-point rating scale ranging from "as low as possible" to "as high as possible" and a separate scale listing possible ranges of damage awards. Responses for the two measures of each dependent variables were averaged for the remaining analysis. Correlations of each measure of the dependent variables are presented in Tables 6 and 7.

4.7 Experimental Design

This study is a 3x3x3 factorial design with three groups (GROUP) which constitute a between-group variable, and 2 variables, loss (L_i) and compliance (C_i), which are within-group, repeated measures. Every subject received all combinations of the

TABLE 6
AUDIT QUALITY PERCEPTIONS
CORRELATION ANALYSIS OF MULTIPLE MEASURES

First Measure AQ _p	Second Measure - AQp								
	Treatment								
	1	2	3	4	5	6	7	8	9
Treatment 1	0.76*	0.29	0.12	0.45*	0.25	0.01	0.43*	0.21	0.18
Treatment 2		0.63*	0.47*	0.30	0.42*	0.28	0.14	0.49*	0.44*
Treatment 3			0.77*	0.24	0.42*	0.58*	0.14	0.36	0.50*
Treatment 4				0.70*	0.26	0.08	0.51*	0.21	0.20
Treatment 5					0.59*	0.41*	0.22	0.59*	0.56*
Treatment 6						0.81*	0.08	0.40*	0.58*
Treatment 7							0.65*	0.39*	0.32
Treatment 8								0.76*	0.66*
Treatment 9									0.72*

* - correlations are significant at $\alpha = .0001$.

TABLE 7
DAMAGE AWARDS
CORRELATION ANALYSIS OF MULTIPLE MEASURES

First Measure DA	Second Measure of DA								
	Treatment								
	1	2	3	4	5	6	7	8	9
Treatment 1	0.57*	0.58*	0.52*	0.31	0.39*	0.41*	0.46*	0.34	0.32*
Treatment 2		0.70*	0.62*	0.37	0.49*	0.66*	0.55*	0.62*	0.59*
Treatment 3			0.75*	0.34	0.51*	0.70*	0.45*	0.56*	0.68*
Treatment 4				0.59*	0.45*	0.37*	0.61*	0.41	0.26
Treatment 5					0.61*	0.54*	0.53*	0.60*	0.53*
Treatment 6						0.66*	0.30	0.50*	0.62*
Treatment 7							0.69*	0.58*	0.46*
Treatment 8								0.73*	0.65*
Treatment 9									0.74*

* - correlations are significant at $\alpha = .0001$.

repeated measure treatments, with the order of the treatments varied to test for possible order effects. Expected audit quality (AQ_e) was elicited, not manipulated.

Hypotheses 1 through 4 which involve subjects' perceptions of audit quality (AQ_p) were tested using multivariate analysis of variance (MANOVA), contrasts and profile analysis. Hypotheses 5 and 6 which involve damage awards (DA) were tested using regression analysis.

5.0 DATA ANALYSIS AND RESULTS

5.1 Manipulation Checks

Recall that each scenario in the test instrument represented one treatment which combined the manipulations of the independent variables, loss (L_t) and compliance (C_t). After reading each scenario, subjects used a seven- point rating scale to provide a manipulation check, or a description of the level of each variable in that particular scenario. Manipulations were successful if subjects identified three distinct levels of each variable.

An analysis of variance (ANOVA) procedure was used to determine the effectiveness of the manipulations. Scheffe's test was used to investigate specific differences among the manipulation check responses by group and to control for type 1 experimental error rate. The results of the manipulation checks are presented in Table 8. Both auditors and attorneys recognized three significantly different levels of both variables. This indicates that these groups adequately differentiated among the manipulations. Jurors, on the other hand, perceived no significant differences between the moderate and high levels of both L_t and C_t . However, jurors did recognize that these higher levels of the manipulations were significantly different from the low manipulation of both variables. This indicates that the manipulations were only partially successful for the juror group.

Jurors could participate in this study only if they were unschooled in legal or accounting matters. Furthermore, these jurors were given a short time period in which to become familiar with the complexities of the case. That the jurors only perceived C_t as

TABLE 8
MANIPULATION CHECKS

CONDITION	MEAN RESPONSES		
	AUDITORS	ATTORNEYS	JURORS
LOSS:			
Low	2.05*	3.25*	3.83*
Moderate	4.68*	5.54*	5.24
High	5.78*	6.51*	5.76*
COMPLIANCE:			
Low	3.16*	2.54*	2.95*
Moderate	5.37*	3.80*	4.13
High	6.43*	4.52*	4.67*

* significantly different from other means for the same group of subjects, Scheffe's test ($\alpha = .05$)

"low" or "high" may suggest an effort to simplify these complexities to dualistic terms. That the jurors only perceived L_t as "low" or "high" indicates that the jurors understood the relative differences between a loss in the thousands versus a loss in the millions. However, these results indicate that the moderate and high losses were so large to jurors that they did not differentiate between the amounts.

Although the manipulations were not successful for the juror subjects, it is important to recall that the levels of the manipulations were chosen based on actual litigation cases. Furthermore, the manipulations were successful for two of the three subject groups. As a result, the data were analyzed using 3 levels of the manipulated variables.

5.2 MANOVA - Audit Quality Perceptions

The first part of this study required analyzing audit quality perceptions (AQ_p) for every treatment and each group. Means and standard deviations of the dependent variable AQ_p , by treatment and group are presented in Table 9.

A repeated measures MANOVA was used to test hypotheses 1 through 4. An omnibus test was used to examine the null hypothesis of no overall effect for each of the main effects of the two independent variables, L_t and C_b , and their interactions. The results of the omnibus tests are presented in Table 10. Since Wilk's Lambda, Pillai's Trace, Hotelling-Lawley Trace and Roy's Greatest Root yielded the same results, only values of the Wilk's Lambda statistic are reported.

The loss and group interaction ($L_t \times \text{Group}$) as well as the compliance and group interaction ($C_t \times \text{Group}$) were significant at the multivariate level. These interactions

TABLE 9
AUDIT QUALITY PERCEPTIONS
MEANS AND STANDARD DEVIATIONS

TREATMENT		AUDIT QUALITY PERCEPTIONS (AQ _p)			
Loss (L _i)	Compliance (C _i)	ALL	AUDITORS	ATTORNEYS	JURORS
Low	Low	3.25 (1.54)	3.54 (1.53)	3.07 (1.43)	3.13 (1.66)
Low	Moderate	4.69 (1.52)	5.56 (1.16)	4.32 (1.39)	4.13 (1.61)
Low	High	5.18 (1.71)	6.29 (1.05)	4.87 (1.53)	4.32 (1.85)
Moderate	Low	2.99 (1.43)	3.19 (1.44)	2.79 (1.23)	2.96 (1.60)
Moderate	Moderate	4.51 (1.47)	5.35 (1.03)	3.74 (1.27)	4.40 (1.62)
Moderate	High	4.95 (1.70)	6.33 (0.72)	4.18 (1.53)	4.25 (1.72)
High	Low	2.89 (1.44)	3.11 (1.35)	2.51 (1.26)	3.04 (1.65)
High	Moderate	4.54 (1.54)	5.50 (1.03)	3.93 (1.50)	4.15 (1.56)
High	High	5.06 (1.68)	6.33 (0.85)	4.24 (1.43)	4.53 (1.80)

Note: Standard deviations are reported in parentheses.

TABLE 10
AUDIT QUALITY PERCEPTIONS
MANOVA - OMNIBUS TEST STATISTICS

EFFECT	TEST CRITERIA				
	Wilk's Lambda	F Value	num df	den df	Pr > F
L _t	0.8886	6.27	2	100	0.0027
C _t	0.3548	90.92	2	100	0.0001
L _t x C _t	0.9750	0.63	4	98	0.6427
L _t x Group	0.8888	3.04	4	200	0.0185
C _t x Group	0.7989	5.94	4	200	0.0002
L _t x C _t x Group	0.9041	1.27	8	196	0.2632

imply that group means of AQ_p differ among the levels of L_t and C_t , respectively. As a result, the main effects of L_t and C_t , though significant at the multivariate level, may not be interpretable. For each of these interactions, contrast analyses were used to compare the univariate differences among groups at every level of the independent variables, as well as differences in group responses to increases in the independent variables.

5.2.1 Compliance and Group Interaction

Figure 4 demonstrates the $C_t \times$ Group interaction. In essence, the figure shows the effects on each group's perceptions of increasing compliance given the amount of the loss. Table 11 shows the group means and standard deviations of AQ_p at each level of C_t . At the low level, there were no significant differences among the audit quality perceptions of the groups. Furthermore, at the moderate and high levels of compliance, there were no significant differences between the judicial evaluators. However, at the moderate and high levels of compliance, auditors' quality perceptions were significantly higher ($\alpha = .05$) than judicial evaluators.

Table 12 shows the marginal effect on perceived audit quality of increasing levels of compliance. While increases in C_t increased the AQ_p of all groups, the auditors' reaction was significantly more positive than the reaction of the judicial evaluators. Once again, differences between the two groups of judicial evaluators were not significant.

5.2.2 Loss and Group Interaction

Figure 5 shows the $L_t \times$ Group interaction. Here, the figure demonstrates the effect on each group's audit quality perceptions of increasing the plaintiff's loss given

Figure 4
Compliance X Group Interaction

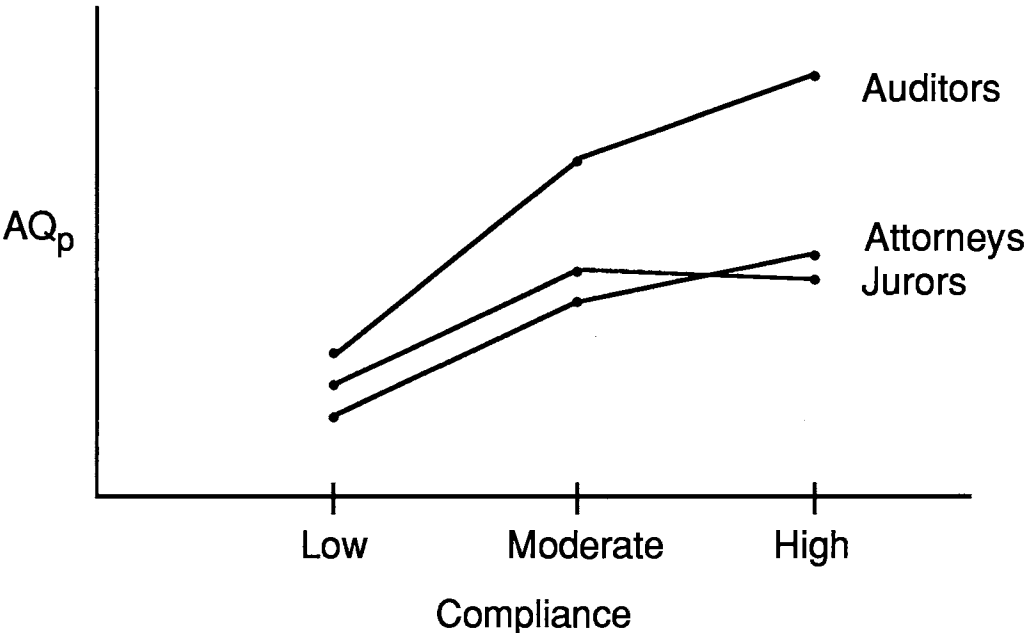


Figure 5
Loss X Group Interaction

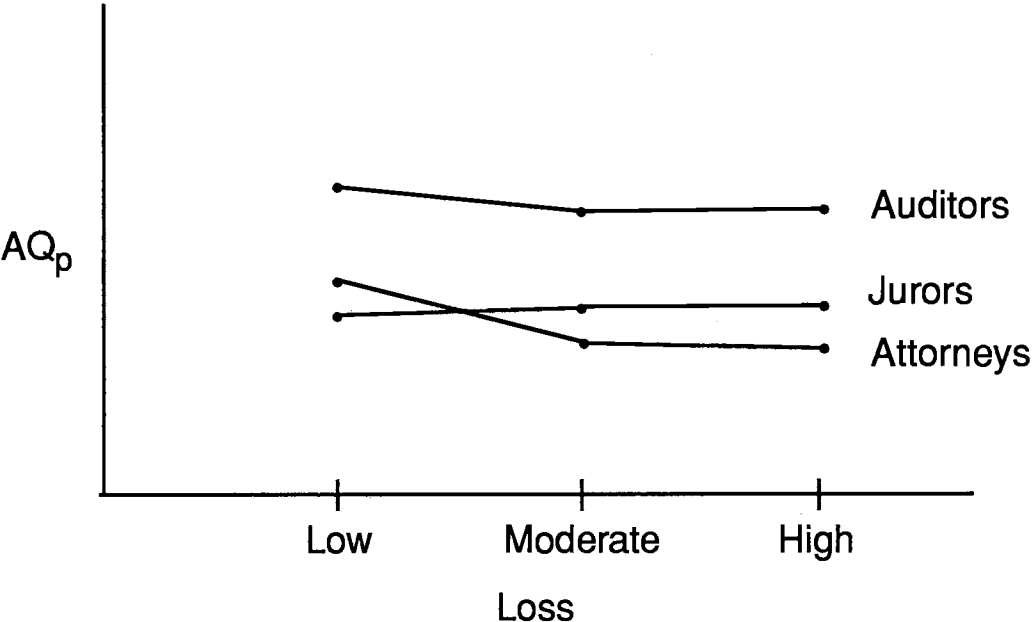


TABLE 11
AUDIT QUALITY PERCEPTIONS
ANALYSIS OF INTERACTIONS

INTERACTIONS	AUDIT QUALITY PERCEPTIONS (AQ _p)		
	AUDITORS	ATTORNEYS	JURORS
<u>L_t x Group Interaction:</u>			
Low Loss	5.13* (0.92)	4.09 (0.94)	3.86 (1.35)
Moderate Loss	4.96* (0.79)	3.57 (0.91)	3.87 (1.24)
High Loss	4.98* (0.83)	3.56 (1.12)	3.91 (1.37)
<u>C_t x Group Interaction:</u>			
Low Compliance	3.28 (1.30)	2.79 (1.10)	3.04 (1.46)
Moderate Compliance	5.47* (0.94)	4.00 (1.18)	4.23 (1.44)
High Compliance	6.32* (0.74)	4.43 (1.17)	4.37 (1.55)

* mean is significantly different ($\alpha = .05$) from mean of other subject groups at the same level of loss/compliance.

TABLE 12
AUDIT QUALITY PERCEPTIONS
CONTRAST ANALYSIS

INTERACTION	F-VALUES			
	OVERALL CONTRAST	AUDITOR vs. ATTORNEY	AUDITOR vs. JUROR	ATTORNEY vs. JUROR
<u>L_i x GROUP</u>				
Effect of increasing L _i from: Low to Moderate	5.16*	4.51**	1.15	9.95*
Moderate to High	0.99	0.99	0.99	0.99
<u>C_i x GROUP</u>				
Effect of increasing C _i from: Low to Moderate	7.25*	10.55*	10.98*	0.004
Moderate to High	4.51**	3.12***	8.89*	1.44

- * - significant at $\alpha = .01$.
- ** - significant at $\alpha = .05$.
- *** - significant at $\alpha = .10$.

compliance. As shown in Table 11, at every level of L_t , the auditors' quality perceptions were significantly higher than judicial evaluators' quality perceptions. Jurors' and attorneys' quality perceptions were not significantly different from one another at any level of loss.

Table 12 shows the marginal effects of increasing the levels of loss. Here, there are two items of importance. First, increasing L_t from moderate to high had no significant overall effect across the groups. Second, when L_t increased from low to moderate jurors' and auditors' AQ_p remained essentially the same; however, attorneys' AQ_p decreased significantly.

5.2.3 Hypothesis Testing

Hypothesis 1 stated that audit quality perceptions would be negatively related to the amount of the plaintiff's loss. Investigation of the $L_t \times$ Group interaction revealed that this negative relationship was only present for the attorney subjects, and only as L_t increased from low to moderate.

The different perspective of the attorney group may be attributable to the popularity of contingent fee arrangements in the legal profession. When attorney's fees are contingent on the amount of the damage award, their remuneration is generally some function of the amount lost. Thus, the attorney group may be reacting to the increased economic feasibility of the case as the plaintiff's loss increases from a low to a moderate level.

Although auditors and jurors AQ_p were not affected by increases in L_t , the main effect of L_t remains significant for auditors and jurors. However, for these groups, the

negative relationship predicted by Hypothesis 1 is generally unsupported.

Hypothesis 2 stated that audit quality perceptions were positively related to the auditor's compliance with professional standards. Investigation of the C_t x Group interaction revealed that this relationship was significant only for auditors. Thus, increases in compliance result in significant increases in quality perceptions for auditors. While the main effect of C_t remains significant for judicial evaluators, the expected relationship posited in Hypothesis 2 was not supported for attorneys and jurors.

Hypothesis 3 stated that auditors would rely more on compliance than would judicial evaluators in forming audit quality perceptions. As expected, auditors' AQ_p was significantly higher than judicial evaluators at the moderate and high levels of C_t . Furthermore, auditors were the only group to exhibit a statistically significant, positive reaction to increases in C_t . Together, this indicated that compliance was very important to auditors' quality perceptions. (The lack of significant differences at the low level of C_t may also suggest that auditors recognize and are punitive about failure to establish a minimum level of compliance.) Thus, Hypothesis 3 was supported.

Hypothesis 4 stated that judicial evaluators would rely more on the plaintiff's loss than would auditors in forming quality perceptions. As expected, judicial evaluators' AQ_p is significantly lower than auditors' at all levels of loss. Additionally, responses to increases in L_t were either flat (jurors) or negative (attorneys). Taken together, this indicates that the existence of a plaintiff's loss (regardless of the size) is enough to "fixate" judicial evaluators at a lower AQ_p than auditors. Thus, Hypothesis 4 was supported.

5.3 Regression Analysis - Damage Awards

The second part of the experiment entailed identifying the role that audit quality expectations (AQ_e) and perceptions (AQ_p) serve in determining satisfaction, as operationalized by the amount of damages awarded (DA). For this portion of the experiment, the independent variables were AQ_e , the expectation measure elicited at the beginning of the experiment, and AQ_p , the perception measure that was the dependent measure in the MANOVA described previously

AQ_e responses were summed and averaged by group, as shown in Table 13. (Subjects' responses were coded in reverse, such that lower means correspond to lower expectations, and higher means correspond to higher expectations.) Overall, expectations were significantly different among the three groups, with auditors having the lowest expectations and jurors having the highest expectations.

The dependent variable, DA, was obtained for each group at each of the nine scenarios. Mean responses and standard deviations by treatment and group are presented in Table 14.

Regression analysis was used to test Hypotheses 5 and 6 that damages awards are negatively related to AQ_p and positively related to AQ_e . The following regression equation was tested:

$$DA = b_0 + b_1AQ_e + b_2AQ_p \quad (3)$$

Results of the regression analysis are presented in Table 15. The model indicated a lack of multicollinearity (variance inflation factor <10), and the overall variance accounted for (R^2) was approximately 65%.

TABLE 13
EXPECTED AUDIT QUALITY
MEANS AND STANDARD DEVIATIONS

EXPECTATION MEASURES	AQ _e			
	All	Auditors	Attorneys	Jurors
Audit reports should reflect the future financial stability of the audited company.	4.01 (2.13)	2.97 (1.81)	3.76 (2.06)	5.35 ^a (1.82)
Auditors should protect the financial security of investors and creditors of the audited company.	5.59 (1.97)	4.25 ^a (2.08)	6.09 (1.73)	6.50 (1.24)
Audit reports should predict the future success or failure of the audited company.	2.70 (1.89)	1.38 ^a (0.84)	2.97 (1.77)	3.82 (2.02)
Auditors should ensure that audited financial statements contain no significant deliberate distortions.	2.54 (1.63)	2.77 (1.40)	1.88 ^a (1.25)	2.94 (2.00)
Audit reports should provide reasonable assurance about the accuracy of the audited financial statements.	6.36 (1.20)	6.64 ^b (0.59)	6.41 (1.21)	6.00 (1.56)
Auditors should ensure that audited financial statements contain no deliberate distortions.	3.57 (2.00)	3.33 (1.71)	3.35 (2.01)	4.03 (2.25)
Auditors should ensure that the audited financial statements contain no accidental distortions.	2.76 (1.79)	2.83 (1.58)	1.85 ^a (1.35)	3.59 (1.99)
Auditing should be conducted like any other profitable business.	5.96 (1.41)	5.36 ^a (1.59)	6.24 (1.37)	6.32 (1.04)
Auditors should conduct the audit in a way that best serves the auditing firm.	4.72 (1.78)	5.27 ^c (1.52)	4.18 (1.57)	4.68 (2.08)
Auditors should conduct the audit in a way that best serves the management of the audited firm.	5.16 (1.94)	3.61 ^a (2.03)	5.62 (1.56)	6.35 (0.81)
SUMMED AND AVERAGED RESPONSE	4.33 (0.93)	3.84 ^d (0.76)	4.24 ^d (0.79)	4.96 ^d (0.87)

Note: Standard deviations are shown in parentheses.

^a Group means is significantly different ($\alpha = .05$) from other group means of the same measure.

^b Group means of auditors and jurors are significantly different ($\alpha = .05$).

^c Group means of auditors and attorneys are significantly different ($\alpha = .05$).

^d Group means of all groups are significantly different ($\alpha = .05$).

TABLE 14
DAMAGE AWARDS
MEANS AND STANDARD DEVIATIONS

TREATMENT		DAMAGE AWARDS			
Loss (L _i)	Compliance (C _i)	ALL	AUDITORS	ATTORNEYS	JURORS
Low	Low	2.92 (1.41)	2.40 (1.01)	2.78 (1.10)	3.62 (1.75)
Low	Moderate	2.31 (1.41)	1.60 (0.74)	2.37 (1.05)	3.00 (1.86)
Low	High	2.09 (1.49)	1.17 (0.46)	2.16 (1.17)	2.99 (1.90)
Moderate	Low	3.59 (1.43)	3.00 (1.01)	3.78 (1.17)	4.01 (1.83)
Moderate	Moderate	2.56 (1.40)	1.86 (0.74)	2.78 (1.15)	3.09 (1.83)
Moderate	High	2.29 (1.43)	1.28 (0.44)	2.62 (1.06)	3.03 (1.80)
High	Low	3.85 (1.55)	3.28 (1.24)	4.25 (1.39)	4.04 (1.82)
High	Moderate	2.67 (1.45)	1.83 (0.74)	3.16 (1.41)	3.06 (1.69)
High	High	2.37 (1.60)	1.24 (0.51)	2.93 (1.49)	3.00 (1.83)

In order to test Hypotheses 5 and 6, the direction and significance of the beta coefficients (b_1 and b_2) of the two independent variables AQ_p and AQ_e were examined overall and for each group. As expected, the overall coefficients were both significant at $\alpha = .0001$ and the sign of each coefficient was as hypothesized.

The regression analysis was also conducted for each group. Results of these regression analyses are also presented in Table 15. As expected, the coefficients for perceptions and expectations were both significant and in the right direction for jurors and attorneys. However, for the auditors, the sign of the expectation coefficient was negative and was not significant. This seems to suggest that there is no disconfirmation effect for auditors. It may also imply that the auditors' expectations encompass more or different dimensions than are represented in the expectation measure used herein.

In order to corroborate these findings indicating differences between auditors and judicial evaluators, a second regression model was created. Using 2 dummy variables representing group classification, the following regression model tested the strength and direction of association of the independent variables on damage award assessments between auditors and judicial evaluators:

$$DA = b_0 + b_1AQ_e + b_2AQ_p + b_3D1 + b_4D2 + b_5(D1 * AQ_e) + b_6(D2 * AQ_e) + b_7(D1 * AQ_p) + b_8(D2 * AQ_p)$$

where

D1 = dummy variable equal to 1 when group is attorneys and 0 otherwise

D2 = dummy variable equal to 1 when group is jurors and 0 otherwise

As shown in Table 16, each of the dummy variables and their interactions with the independent variables were significant ($\alpha = .0001$) and in the predicted direction. This indicates that when assessing damage awards, judicial evaluators and auditors differ in their utilization of audit quality perceptions and expectations, i.e. the slopes of the regression lines are different.

Thus, the regression analyses provide support for Hypotheses 5. With respect to all groups, these results indicate that damage awards are negatively related to perceptions of audit quality. However, these results provide only partial support for Hypothesis 6, suggesting that damage awards are positively related to expectations only for judicial evaluators.

TABLE 15
DAMAGE AWARDS
REGRESSION ANALYSIS

ALL GROUPS

R² = .6531

VARIABLE	df	PARAMETER ESTIMATE	STANDARD ERROR	T	P-VALUE
Intercept	1	4.33	0.1789	24.22	.0001
Expectations	1	0.28	0.0336	8.38	.0001
Perceptions	1	-0.66	.0174	-38.05	.0001

AUDITORS ONLY

R² = .7541

VARIABLE	df	PARAMETER ESTIMATE	STANDARD ERROR	T	P-VALUE
Intercept	1	4.89	0.1843	26.52	.0001
Expectations	1	-0.05	0.0401	-1.12	.2619
Perceptions	1	-0.55	0.0175	-31.37	.0001

ATTORNEYS ONLY

R² = .6759

VARIABLE	df	PARAMETER ESTIMATE	STANDARD ERROR	T	P-VALUE
Intercept	1	4.91	0.2709	18.13	.0001
Expectations	1	0.17	0.0571	2.99	.0030
Perceptions	1	-0.71	0.0285	-24.87	.0001

JURORS ONLY

R² = .5526

VARIABLE	df	PARAMETER ESTIMATE	STANDARD ERROR	T	P-VALUE
Intercept	1	4.08	0.4893	8.35	.0001
Expectations	1	0.40	0.0844	4.69	.0001
Perceptions	1	-0.70	0.0414	-17.00	.0001

Note: Standard deviations are presented in parentheses.

TABLE 16
DAMAGE AWARDS - REGRESSION ANALYSIS
JUDICIAL EVALUATORS vs. AUDITORS

ALL GROUPS

R² = .6741

VARIABLE	df	PARAMETER ESTIMATE	STANDARD ERROR	T	P-VALUE
Intercept	1	4.47	0.3084	14.48	.0001
Expectations	1	0.05	0.0665	0.77	.4450
Perceptions	1	-0.55	0.0289	-18.83	.0001
D1	1	1.75	0.4142	4.22	.0001
D2	1	2.78	0.3675	7.56	.0001
D1*AQ _e	1	-0.22	0.0933	-2.33	.0199
D2*AQ _e	1	-0.45	0.0904	-4.96	.0001
D1*AQ _p	1	-0.15	0.0437	-3.53	.0004
D2*AQ _p	1	-0.16	0.0417	-3.75	.0002

6.0 SUMMARY AND CONCLUSIONS

This chapter summarizes and discusses the results of the study. The study's contributions, limitations and implications for future research are also presented.

6.1 Discussion

The model presented in Chapter 3 describes the significance and influence of expectations, the amount of the plaintiff's loss and the degree of the auditor's compliance with professional standards on perceptions of audit quality and satisfaction with the audit. Overall, regarding audit quality, the results of the experiment indicate that both the amount of the loss and the auditor's compliance are significant factors affecting each group's perceptions of audit quality. Similarly, the results suggest that both expectations and perceptions of audit quality are significant factors affecting the determination of satisfaction with the audit, as measured by damage awards. However, the most interesting implications of these results lie in the analysis of differences among the subject groups of auditors, attorneys and jurors. These differences and their implications are explored further in the remainder of this section.

6.1.1 Perceptions of Audit Quality

The model presented in Chapter 3 suggests that two audit quality cues, the amount of the plaintiff's loss and the degree of the auditor's compliance with professional standards, will be important determinants of audit quality perceptions. Recall that the weak form of the outcome bias presented by the model suggests that evaluators will rely on both outcome information (the plaintiff's loss) and process information (how well the auditor complied with professional standards). The model also suggests differences in

cue utilization between auditors and judicial evaluators.

The results of this study provide evidence that the auditor's compliance with standards is an important cue utilized by auditors in forming perceptions of audit quality. However, the results do not support any form of outcome bias for auditors. In general, given the same set of circumstances, auditors' perceptions of audit quality are significantly higher than either jurors' or attorneys' perceptions. Likewise, auditors' perceptions increase significantly as the degree of compliance increases, and auditors' perceptions are essentially unresponsive to increases in the amount of the plaintiff's loss. The single exception to this result occurs when the auditor's degree of compliance with professional standards is low. When this occurs, auditors' perceptions of audit quality are as low as those of both groups of judicial evaluators. Taken together, these findings suggest that once a minimum degree of compliance has been established, auditors' perceptions of audit quality will exceed judicial evaluators' perceptions.

In general, attorneys' and jurors' perceptions of audit quality tend to be unresponsive to increases in the amount of the plaintiff's loss or the degree of compliance. The one exception occurs for attorneys when the plaintiff's loss increases from low to moderate. As discussed in Chapter 5, this may reflect the economic viability of trying the case when the attorney's fee is contingent upon a successful verdict. Although the marginal change in perceptions of audit quality tends to be insignificant, it is important to note that both groups of judicial evaluators perceive audit quality to be significantly lower than auditors. This indicates some outcome bias, i.e. that the mere existence of the lawsuit is enough to fix the judicial evaluators' perceptions at a lower

point, regardless of the evidence. There is no support for the idea that judicial evaluators' perceptions are significantly altered by the degree of the auditor's compliance with standards.

6.1.2 Audit Dissatisfaction

The model presented in Chapter 3 suggests that audit dissatisfaction, as represented by the absolute value of the damage award, will be negatively related to perceptions of audit quality and positively related to expected audit quality. These relationships were observed for both groups of judicial evaluators. This finding indicates that damage awards can be decreased either by increasing a judicial evaluator's perception of the audit quality or by decreasing the judicial evaluator's expectation of the audit quality. For groups of auditors, the negative relationship between damage awards and perceptions was observed, but there was also an insignificant, negative relationship between damage awards and expectations. As indicated in Chapter 4, this result may indicate that auditors' expectations are more sophisticated than judicial evaluators' and are not fully captured by the expectation measure used in this study, or it may merely suggest that expectations play an unimportant role in determining auditors' satisfactions with an audit.

6.1.3 Implications

The results of this study have several implications. First, the auditing profession must recognize that audit quality as defined by auditors is not necessarily representative of definitions used by judicial evaluators in determining audit culpability and liability. Second, judicial evaluators' expectations of audit quality are significantly higher than

auditors' expectations. The ability of judicial evaluators to parlay their lower perceptions and higher expectations of audit quality into damage awards payable by the profession give the somewhat abstract expectation gap its "teeth". Further research is needed to investigate the characteristics of audit quality as defined by judicial evaluators and to better understand how judicial evaluators' expectations are formed and changed.

Third, these results indicate the existence of a type of outcome bias against the auditing profession. This bias may indicate that the mere allegation of audit failure signals poor audit quality to judicial evaluators. Unfortunately, this bias does not seem responsive to evidence of compliance with professional standards which is often the heart of a "due care" defense. Further research is needed to determine how this bias can be overcome.

6.2 Contributions

This study makes several contributions to the auditing literature. First, this study provides a theoretical framework, unique to the auditing literature, which describes the relationships among perceptions and expectations of audit quality and audit liability. This framework establishes a means by which efforts to increase perceptions of audit quality and reduce audit liability can be assessed. Second, this study provides for a direct analysis of the components of the expectation gap. The model hypothesizes differences in perceptions that may be the source of the expectation gap, and the study allows for exploration of differences in expectations, quality perceptions and damage awards. Third, this study provides for simultaneous exploration of the effects of outcome bias and compliance with professional standards in forming perceptions of audit quality. Fourth,

this study explores differences in cue utilization between jurors and judges. The right to trial by jury rather than a judge exists in most cases; any differences between jurors and judges has potential value in reducing audit liability.

6.3 Limitations and Future Research

The primary limitation of this study is its external validity. Much of the ambiguity present in an actual lawsuit is excluded from the test instrument. Additionally, the study is limited by the oversimplification of the evidence about the audit service. This study focuses on the most likely cues to be presented in a lawsuit; however, there are numerous cues which are omitted. Similarly, the effect of other information, such as audit firm reputation, audit firm size (essentially the "Z" variable in the model) has been excluded from the laboratory setting; whereas, this information would generally be available in the courtroom. Finally, the simplicity of the laboratory study provided herein, ignores the effect of group decision making on jurors' perceptions and behaviors.

Addressing each of these limitations on the external validity of this proposed study provides opportunity for further, more generalizable research in this area. Specifically, extensions to model and test the effects of information regarding firm reputation and size are suggested. The use of actual case transcripts and group decision makers also warrants further investigation. Finally, the model can be extended and tested using stakeholders, including investors and creditors, rather than judicial evaluators.

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APPENDIX A - INTRODUCTORY PRESENTATION

The following terms will be used throughout the audit case. Please take a few minutes and familiarize yourself with these terms as the surveyor discusses them. Please ask questions if there is anything you do not understand.

Creditor - an individual or group that loans money

Financial Statements - a set of financial information about a company, includes a balance sheet, income statement, statement of retained earnings, statement of cash flows and related notes describing the statements

Audit - an examination of a company's financial statements for the purpose of expressing an opinion on the financial statements

Audit Opinion - a report issued by certified public accountants describing their opinion of the a company's financial statements

Audit Workpapers - set of papers generated by auditors on which the process of the audit, i.e. the steps performed, conclusions reached, etc. is documented. a record of all the work performed during the audit

Generally Accepted Auditing Standards (GAAS) - professional guidelines describing how an audit should be conducted

Material - refers to the concept of something big enough to make a difference to a decision maker

APPENDIX B - EXPECTATION MEASURES

The following questions were used to measure expectations of audit quality. Subjects were asked to respond using a seven- point scale ranging from Strongly Agree to Strongly Disagree.

1. Audit reports should reflect the future financial stability of the audited company.
2. Auditors should ensure that audited financial statements contain no deliberate distortions.
3. Audit reports should predict the future success or failure of the audited company.
4. Auditors should conduct the audit in a way that best serves the auditing firm.
5. Audit reports should provide reasonable assurance about the accuracy of the audited financial statements.
6. Auditors should protect the financial security of investors and creditors of the audited company.
7. Auditors should conduct the audit in a way that best serves the management of the audited firm.
8. Auditors should ensure that audited financial statements contain no significant deliberate distortions.
9. Auditing should be conducted like any other profitable business.
10. Auditors should ensure that the audited financial statements contain no accidental distortions.

APPENDIX C
TEST INSTRUMENT

TAYLOR INVESTMENTS vs. ANDREW & MURPHY
Case Information

This study is being conducted as part of an accounting research project. Our primary goal is to study individual's perceptions of audit litigation. This project is expected to last approximately 45 minutes to 1 hour. Your participation in this project is completely **voluntary**, and you may choose to withdraw from the project at any time. Furthermore, your responses will remain **anonymous and confidential**.

Please read the case information very carefully. When you are through, you will be presented with a number of scenarios describing additional evidence about the case. Following each of these scenarios, you will be asked to answer four (4) questions about the scenario. Please select the answer that most closely resembles your **honest attitude or opinion**. There are no right or wrong answers to any of these questions.

Your surveyor will provide verbal instructions about each scenario and the associated questions. Please move through the project as instructed by the surveyor.

Your responses are very important to us. Please answer all questions included in this handout. If you have any questions while you are completing the project, please ask the surveyor. We wish to thank you, in advance for your time and cooperation.

If you have any additional questions about this project, please feel free to contact the surveyor at the following address:

Kimberly Gladden Burke
427 CBA
Oklahoma State University
(405) 744-7567

PLEASE KEEP THIS PAGE FOR YOUR RECORDS

INSTRUCTIONS FOR USING SCALES

You will be asked to use different scales for rating different things. It is important that you feel comfortable using the entire range of the scale. So, please take a moment to familiarize yourself with the use of scales. In most questions, you will be asked to indicate your agreement or disagreement with a statement. After reading a statement,

If you feel that you **strongly agree** with the statement, mark your answer as:

Strongly Agree 1 2 3 4 5 6 7 Strongly
Disagree

If you feel that you **strongly disagree** with the statement, mark your answer as:

Strongly Agree 1 2 3 4 5 6 7 Strongly
Disagree

If your feelings are **neutral**, that is, you **neither agree nor disagree** with the statement, mark your answer as:

Strongly Agree 1 2 3 4 5 6 7 Strongly
Disagree

If you feel that you **moderately agree** with the statement, mark your answer as:

Strongly Agree 1 2 3 4 5 6 7 Strongly
Disagree

If you feel that you **somewhat agree** with the statement, mark your answer as:

Strongly Agree 1 2 3 4 5 6 7 Strongly
Disagree

If you have any questions about the scale, ask the surveyor now.

TAYLOR INVESTMENTS vs. ANDREW & MURPHY
Introductory Information

You have been asked to serve on the jury for "Taylor Investments vs. Andrew & Murphy". This case involves an alleged audit failure. Taylor Investments, which we will call "Taylor", is an investment group that consists of 20 people. Taylor has also lent money to Regal, Inc. which we will call "Regal". Taylor is suing Andrew & Murphy, Certified Public Accountants, which is Regal's audit firm. We will refer to Andrew & Murphy as the "Auditors."

Regal, a national mail-order retailer, first borrowed money from Taylor in 1990. The loan was secured by a pledge of inventory in the amount of 75% of the collateral. In other words, for every \$75 of inventory owned by Regal, Regal was allowed to borrow \$100 from Taylor. The terms of the agreement stated that Regal would provide Taylor with audited financial statements for each year ending December 31. By December, 1992, Regal had borrowed \$5 million (\$5,000,000), based on \$3,750,000 worth of inventory.

Regal's 1992 annual report was completed and delivered to Taylor in June of 1993. The annual report included the financial statements and an *unqualified audit opinion* signed by the Auditors. This unqualified opinion says that the 1992 financial statements "present fairly, in all material respects," Regal's financial position. If the Auditors had found that the financial statements did not present Regal's financial position fairly, the Auditors would have issued a different type of audit opinion. In November of 1993, Regal became unable to repay its loan to Taylor. Since Regal had no assets to repay the loan, Taylor is suing the Auditors in hopes of obtaining cash.

TAYLOR INVESTMENTS vs. ANDREW & MURPHY
Summary of Taylor's Opening Statement

The Auditors were negligent in auditing Regal's financial statements. Negligent means that the Auditors did not conduct the audit the way a "reasonably prudent" auditor should. Because of the unqualified audit opinion, Taylor used the financial statements to determine if their loans to Regal could be collected. Because Taylor relied on the opinion presented by these financial statements, Taylor's investors lost money. Taylor is suing the Auditors to recover the amount of the uncollected loans made to Regal.

Regal hired the Auditors for the express purpose of examining and issuing an opinion on Regal's annual financial statements. The Auditors knew that Taylor would review these financial statements in connection with the loan. The Auditors issued a standard, unqualified opinion on the 1992 financial statements. This kind of opinion is called a "clean" opinion.

Taylor received the 1992 financial statements in June of 1993. The statements showed that Regal had borrowed \$5 million (\$5,000,000), and that Regal had \$3,750,000 worth of inventory. Regal told Taylor that it had expanded its inventory to meet increasing sales demand in its new regions. However, the fact is that four of Regal's officers, including the president and three vice-presidents conspired to misstate both the quantity and cost of the inventory in the 1992 financial statements. In fact, there was actually less than \$3,750,000 worth of inventory. These officers had created artificial companies, complete with falsified purchase orders and vendor invoices to mislead the Auditors about the amount of inventory. In fact, payments that Regal made to these artificial companies went directly into the officers' pockets.

The audit opinion states that audit was conducted in accordance with generally accepted auditing standards (GAAS). GAAS is a set of guidelines set by auditors to provide the minimum set of standards for an audit. Since GAAS is often vague and broad, auditors must exercise prudent, professional judgement in applying these standards. Taylor will present evidence that the Auditors did not comply with these standards and failed to exercise good judgement. If the Auditors had complied with these standards and exercised good judgement, the misstated inventory balances would have been discovered. Furthermore, by performing this audit, the Auditors have a responsibility to protect Taylor's financial interests. Since Taylor is unable to collect the balance of the loan, the Auditors should be held liable for failing to protect Taylor's financial interests.

On June 5, 1993, the day the financial statements were received by Taylor's loan officer, who sent a memo to Taylor's treasurer. The memo stated that the loan officer reviewed the financial statements and accompanying opinion. Based on the financial statements and the Auditors' clean opinion, Taylor's loan officer believed the loan would be collectible. If Taylor had known on June 5, 1993 that the inventory was too low, Taylor would have immediately begun an effort to collect the outstanding loan. Since this crucial fact was not known, Taylor did not begin serious collection efforts until the officers' scheme was discovered in November 1993.

TAYLOR INVESTMENTS vs. ANDREW & MURPHY
Summary of The Auditor's Opening Statement

The contract between Regal and the Auditors states that the Auditors were hired to perform an audit in accordance with generally accepted auditing standards (GAAS). The Auditors performed the audit in accordance with GAAS and exercised good, professional judgement based on the evidence available to them at the time of the audit.

In the audit opinion that accompanied the 1992 financial statements, the auditors wrote:

"...the financial statements are the responsibility of Regal's management. Our responsibility is to express an opinion on these financial statements based on our audits."

The four officers who were involved in the illegal scheme are Regal's management. Much of the evidence that supports these financial statements was fabricated in order to mislead the Auditors. Because of the elaborate nature of the scheme, there was no reason for the Auditors to believe that the evidence was fabricated. Therefore, the Auditors had no reason to question this evidence when they conducted the audit.

As stated in the audit opinion, the Auditors followed GAAS. GAAS requires only that the Auditors get a "reasonable assurance" about whether the financial statements are free from material misstatement. Reasonable assurance is not the same as an absolute guarantee. The nature of an audit is that only a portion of a company's documents is examined. No audit reviews 100% of the evidence. As a result, all audits involve some risk and uncertainty. Both Regal and Taylor were aware of the risk and uncertainty present in any audit.

The audit was designed, in accordance with GAAS, to *attempt* to detect schemes like the one devised by Regal's management. Based on their experience with Regal and other similar companies, the Auditors estimated the risk of both poor accounting and fraud. The Auditors then chose the appropriate audit tests based on this risk assessment. Given the information available at the time, the Auditors' risk assessment and audit tests were appropriate. That the Auditors did not discover the scheme in no way suggests that the audit was deficient or that other auditors would have discovered the scheme.

The Auditors' workpapers document all the tests and conclusions reached during the audit. These workpapers demonstrate that the conclusions reached during the audit were supported by the evidence available at that time. In addition, the workpapers show that the audit was planned and executed in accordance with GAAS.

Remaining Evidence:

The remaining evidence is presented in nine (9) *independent* scenarios. As you work through these scenarios, please remember that the information presented in one scenario has no effect on the other scenarios. Each scenario should be treated as if it contains the *only* additional information presented during this case.

APPENDIX D - SCENARIOS

SCENARIO 1: This scenario show the combination of a low loss and a high level of compliance.

TAYLOR WAS UNABLE TO COLLECT \$250,000, OR 5% OF THE ORIGINAL LOAN BALANCE.

Summary of Taylor's Testimony:

- The Auditors did not adequately identify potential fraud risks prior to beginning the audit.
- The audit senior and staff members had 2 years or less of experience in the industry and no experience with Regal. All of the audit procedures were performed by these staff.
- The Auditors performed the minimum number of tests required by their professional standards. If the Auditors had audited more of Regal's records, the chances of detecting the fraudulent scheme would have increased dramatically.

Summary of the Auditors' Responses:

- The workpapers show that, in planning the audit, the Auditors identified Regal as a "high risk" for misstating the financial statements. Expert witnesses testified that the Auditors actively searched for fraud, but the collusion of the Regal's officers made detecting their scheme very difficult.
- The audit manager and partner had been assigned to the Regal audit for 3 years. The manager had 6 years experience in the industry, and the partner had 10 years experience in the industry. The manager spoke daily with the senior about the audit.
- The audit workpapers showed how each audit procedure addressed the risks present in the Regal audit. Statistical procedures were used to determine the sample size reviewed by the Auditors. Expert witnesses testified that the audit procedures were appropriate based on the information available to the Auditors at the time.

SCENARIO 2: This scenario shows the combination of a high loss and low level of compliance.

**TAYLOR WAS UNABLE TO COLLECT \$5,000,000
OR 100% OF THE ORIGINAL LOAN BALANCE.**

Summary of Taylor's Testimony:

- The Auditors' workpapers show that they did not recognize several fraud risks during the audit. Expert witnesses testified that the Auditors ignored several well-known "red flags" that indicate potential risks.
- There were several unresolved discrepancies documented in the workpapers. Some of these discrepancies included invoices fabricated by the fictitious companies owned by Regal's officers.
- The audit partner had been assigned to the Regal audit for several years, and had become a personal friend of Regal's President. The Partner discussed many of the unusual items discovered during the audit with Regal's President. Based on these discussions, the Auditors did not perform any additional work on these items.
- Only 35% of the audit workpapers were reviewed by the audit manager and partner before the audit opinion was released.
- The audit workpapers showed that the Auditors did not perform all of the procedures they had planned. Expert witnesses testified that the Auditors' did not have enough evidence to issue a clean opinion.

Summary of the Auditors' Responses:

- The workpapers showed that the Auditors had identified Regal as "low risk" for fraud in planning the audit. The Auditors followed a standard audit program designed for "low risk" audits.
- The audit opinion refers to the financial statements taken as a whole. Individual discrepancies or differences are not necessarily significant.
- The Partner testified that the audit could not be conducted efficiently without relying on the integrity of Regal's upper management. And, at the time of the audit, the Partner had no reason to believe the President was involved in any fraudulent scheme.
- The Partner and manager met with the audit staff to discuss any issues

that the staff felt were important before issuing the audit opinion.

- The significant audit procedures were completed. These were the same audit procedures that were completed in the prior year.

SCENARIO 3: This scenario shows the combination of a moderate loss and a moderate level of compliance.

**TAYLOR WAS UNABLE TO COLLECT \$2,500,000,
OR 50%, OF THE ORIGINAL LOAN BALANCE.**

Summary of Taylor's Testimony:

- The Auditors did not adequately identify potential fraud risks prior to beginning the audit. Expert witnesses testified that the Regal audit should have been identified as a "high risk" audit.
- The audit staff members had 2 years or less of experience in the industry and no experience with Regal.
- Only 65% of the audit workpapers had been reviewed by the audit partner before the audit opinion was issued.
- Expert witnesses testified that there were other audit procedures that could have been used, which would probably have detected the fraudulent scheme.

Summary of the Auditor's Responses:

- The workpapers showed that the Auditors had identified Regal as a "moderately high risk" audit. The workpapers documented that the Auditors chose procedures based on this risk assessment.
- The audit manager and partner each had 4 years experience in the industry.
- The audit manager reviewed 90% of the audit workpapers and discussed all significant items with the audit partner before the audit opinion was issued.
- The audit procedures used were appropriate for the audit based on the information available at the time. The Expert witnesses presented by Taylor had the benefit of hindsight to indicate other procedures that might have been better.

APPENDIX E - DEPENDENT VARIABLE MEASURES

The following questions were used to check the manipulations of the independent variables:

1. In my opinion, Taylor's loss was

Very Low	1	2	3	4	5	6	7	Very High
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2. In my opinion, the Auditors' compliance with professional standards was

Very Low	1	2	3	4	5	6	7	Very High
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The following questions were used to measure the dependent variable, audit quality perceptions:

3. I would describe the quality of the audit provided by the Auditors as:

Very Low	1	2	3	4	5	6	7	Very High
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4. In my opinion, the Auditors' responsibility for Taylor's loss is

Very Low	1	2	3	4	5	6	7	Very High
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The following questions were used to measure the dependent variable, damage awards:

5. I believe the Auditors should pay damages that are

Very Low	1	2	3	4	5	6	7	Very High
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6. Assuming that the minimum damages the Auditors could pay is \$0 and the maximum is \$15,000,000, I believe the Auditors should pay Taylor damages in the following range (PLACE AN "X" IN THE APPROPRIATE SPACE)

\$0	_____
between \$1 and \$2,500,000	_____
between \$2,500,001 and \$5,000,000	_____
between \$5,000,001 and \$7,500,000	_____
between \$7,500,001 and \$10,000,000	_____
between \$10,000,001 and \$12,500,000	_____
between \$12,500,001 and \$15,000,000	_____

VITA

Kimberly Gladden Burke

Candidate for the Degree of

Doctor of Philosophy

Thesis: AUDIT QUALITY AND THE EXPECTATIONS GAP: JURORS',
JUDGES' AND AUDITORS' PERCEPTIONS

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Senior Auditor, Price Waterhouse - Dallas, TX, 1986-1989

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OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 01-11-95

IRB#: BU-95-014

Proposal Title: AUDIT QUALITY AND THE EXPECTATION GAP: JURORS',
JUDGES', AND AUDITORS' PERCEPTIONS

Principal Investigator(s): Maryanne Mowen, Kimberly Gladden Burke

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

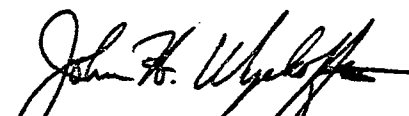
ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD
AT NEXT MEETING.

APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A
CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD
APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR
APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval
are as follows:

Signature:



Chair of Institutional Review Board

Date: February 13, 1995