PREMATURE AUDIT SIGN-OFFS AND THE UNDERREPORTING
OF CHARGEABLE TIME IN PUBLIC ACCOUNTING:
EXAMINATION OF AN ETHICAL DECISION MAKING MODEL

by

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(ABSTRACT)

The underreporting of chargeable time and premature
audit sign-offs can adversely affect public accounting
firms. While prior studies of these activities have
generally lacked a strong theoretical foundation, the
decision model used in this study integrates elements of
cognitive moral development, moral evaluation, opportunity,
and individual moderators. Accountants employed by six
public accounting firms completed a questionnaire designed
to measure the model elements, and responded to two case
scenarios involving underreporting and premature audit sign-
off activities.

Path analyses of the decision models do not support
expected relations between model elements. Because there
were no significant paths associated with the moral
development element, each of the path models was reduced to
a single multiple regression.

Results suggest accountants view underreporting and
premature sign-offs as having different ethical dimensions. The likelihood of underreporting appears affected by reward expectation, teleological evaluation, and the time an accountant has spent in practice. The significance of reward expectation and teleological evaluation suggests that accountants may use a consequences-based approach when deciding whether to underreport chargeable time.

Results also suggest that as accountants become more experienced, they become less likely to prematurely sign-off. Participants with an internal locus of control were less likely to prematurely sign-off.

Three other issues - impact of time budget pressure on underreporting and premature sign-offs, influence of organizational sanctions on underreporting, and effect of procedure materiality on premature sign-offs - were examined. Results indicate that the likelihood of underreporting and the percentage of time written off generally increase with time budget pressure, while the likelihood of premature sign-off activity appears unaffected. Results also suggest that codes of conduct and a threat of termination may reduce the likelihood of underreporting. Finally, participants are more likely to prematurely sign-off on an audit procedure if they believe the procedure is immaterial to performance of the audit.
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TABLE OF CONTENTS

1. INTRODUCTION .......................................................... 1
   1.1 Introduction ......................................................... 1
   1.2 Underreporting of Chargeable Time ...................... 3
   1.3 Consequences of Underreporting Chargeable Time ... 4
   1.4 Premature Audit Sign-offs ................................. 7
   1.5 Consequences of Premature Audit Sign-offs ....... 10
   1.6 Summary ............................................................. 11

2. THE ETHICAL DECISION MAKING MODELS ....................... 12
   2.1 Cognitive Moral Development ............................... 12
   2.2 Contingency Model of Decision Making ............... 14
   2.3 General Model of Marketing Ethics ..................... 15
   2.4 Integrated Model of Ethical Decision Making ...... 18

3. MODIFIED MODEL OF ETHICAL DECISION MAKING AND
   PROPOSED RELATIONS ............................................ 20
   3.1 Modifications to the Ethical Decision Model ...... 20
   3.2 The Modified Ethical Decision Model ................. 22
   3.3 Cognitive Moral Development ............................ 23
   3.4 Moral Evaluations .............................................. 25
   3.5 Opportunity ...................................................... 27
   3.6 Rewards ........................................................... 29
   3.7 Job Level .......................................................... 30
   3.8 Locus of Control ................................................. 31
   3.9 Time Budget Pressure .......................................... 32
3.10 Organizational Sanctions and Underreporting; Audit Procedure Materiality and Premature Sign-offs ........................................ 34
3.10.1 Organizational Sanctions and Underreporting ...................... 35
3.10.2 Audit Procedure Materiality and Premature Sign-offs ............... 37

4. RESEARCH DESIGN AND METHODOLOGY .......................... 38
4.1 Research Instrument ....................................................... 39
4.2 Cognitive Moral Development ............................................ 41
4.3 Moral Evaluations .......................................................... 43
4.4 Opportunity ............................................................... 52
4.5 Rewards ................................................................. 52
4.6 Job Level ............................................................... 52
4.7 Locus of Control .......................................................... 53
4.8 Case Scenarios and Manipulated Variables .......................... 54
4.9 Dependent Variables ...................................................... 55
4.10 Data Analysis ........................................................... 57
4.11 Response and Non-Response Bias .................................... 61

5. RESEARCH RESULTS ....................................................... 64
5.1 Administration of the Questionnaire .................................... 64
5.2 Cognitive Moral Development ............................................ 66
5.3 Moral Evaluations .......................................................... 69
5.4 Opportunity and Rewards ................................................. 71
5.5 Job Level ............................................................... 75
5.6 Locus of Control .......................................................... 76
5.7 Relations Among Underreporting Model Elements .... 78
5.8 Path Analysis of the Underreporting Model ....... 79
5.9 Relations Among Premature Sign-off Model Elements ......................................................... 85
5.10 Path Analysis of the Premature Sign-off Model .... 85
5.11 Modification of the Decision Models ............... 89
5.12 Time Budget Pressure .................................. 93
5.13 Organizational Sanctions and Underreporting ..... 94
5.14 Procedure Materiality and Premature Audit Sign-offs ..................................................... 95
5.15 Methodological Issues .................................. 97
5.15.1 Manipulation of Time Budget Pressure ...... 97
5.15.2 Firm Differences ................................. 100
5.15.3 Non-response Bias ................................. 102

6. DISCUSSION AND CONCLUSIONS ............................. 105
6.1 Introduction ............................................. 105
6.2 Results - Underreporting and Premature Sign-off Path Models ........................................ 105
6.3 Results - Modified Decision Models ............... 110
6.4 Results - Other Issues ................................. 113
6.4.1 Time Budget Pressure ............................... 113
6.4.2 Organizational Sanctions and Underreporting ......................................................... 114
6.4.3 Procedure Materiality and Premature Audit Sign-offs ............................................... 115
6.5 Conclusions ............................................. 116
6.6 Limitations ............................................. 121
6.7 Future Research Efforts .......................... 126

REFERENCES .............................................. 129

APPENDIX A - THE ETHICAL DECISION MAKING MODELS .... 138

APPENDIX B - QUESTIONNAIRE AND SCORING INSTRUCTIONS .... 146

VITA ......................................................... 171
LIST OF ILLUSTRATIONS

Figure 1. Classification of Moral Development into Stages .................................. 139
Figure 2. Contingency Model of Ethical Decision Making ........................................ 140
Figure 3. General Theory of Marketing Ethics .......... 141
Figure 4. Synthesis Integrated Model of Ethical Decision Making ......................... 142
Figure 5. Modified Integrated Model of Ethical Decision Making .......................... 143
Figure 6. Causal Model Diagram of the Underreporting Decision ......................... 144
Figure 7. Causal Model Diagram of the Premature Audit Sign-off Decision .............. 145
Figure 8. Causal Diagram of the Decision Model ....... 59
Figure 9. Path Diagram of the Decision Model ....... 60
Figure 10. Path Diagram - Underreporting Model ....... 81
Figure 11. Path Diagram - Premature Sign-off Model .... 87
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Moral Evaluation Scale Items</td>
<td>51</td>
</tr>
<tr>
<td>Table 2</td>
<td>Questionnaire Responses</td>
<td>65</td>
</tr>
<tr>
<td>Table 3</td>
<td>DIT P Score - Mean Response Scores</td>
<td>67</td>
</tr>
<tr>
<td>Table 4</td>
<td>DIT P Score - Mean Response Scores by Job Level</td>
<td>68</td>
</tr>
<tr>
<td>Table 5</td>
<td>Univariate Regression - Moral Development</td>
<td>69</td>
</tr>
<tr>
<td>Table 6</td>
<td>Moral Evaluations - Mean Response Scores</td>
<td>70</td>
</tr>
<tr>
<td>Table 7</td>
<td>Univariate Regression - Moral Evaluation</td>
<td>71</td>
</tr>
<tr>
<td>Table 8</td>
<td>Opportunity and Rewards - Mean Response Scores</td>
<td>72</td>
</tr>
<tr>
<td>Table 9</td>
<td>Univariate Regression - Opportunity and Rewards</td>
<td>74</td>
</tr>
<tr>
<td>Table 10</td>
<td>Number of Participants by Job Level and CPA Firm</td>
<td>75</td>
</tr>
<tr>
<td>Table 11</td>
<td>Univariate Regression - Job Level</td>
<td>76</td>
</tr>
<tr>
<td>Table 12</td>
<td>Locus of Control</td>
<td>77</td>
</tr>
<tr>
<td>Table 13</td>
<td>Univariate Regression - Locus of Control</td>
<td>78</td>
</tr>
<tr>
<td>Table 14</td>
<td>Pearson Correlation Coefficients - Underreporting Model</td>
<td>79</td>
</tr>
<tr>
<td>Table 15</td>
<td>Tests of Significance - Underreporting Model</td>
<td>82</td>
</tr>
<tr>
<td>Table 16</td>
<td>Direct and Indirect Effects - Underreporting Model</td>
<td>84</td>
</tr>
<tr>
<td>Table 17</td>
<td>Pearson Correlation Coefficients - Premature Sign-off Model</td>
<td>86</td>
</tr>
<tr>
<td>Table 18</td>
<td>Tests of Significance - Premature Sign-off Model</td>
<td>88</td>
</tr>
</tbody>
</table>
Table 19. Direct and Indirect Effects - Premature Sign-off Model ....................................... 89
Table 20. Results of Stepwise Regressions ................. 90
Table 21. Univariate Regression - Time Budget Pressure .................................................................................. 94
Table 22. Likelihood of Behavior and Organizational Sanctions ................................................................. 95
Table 23. Likelihood of Behavior and Procedure Materiality .................................................................. 97
Table 24. Number of Questionnaires by Time Budget Pressure ................................................................. 99
Table 25. Dependent Variable Mean Scores by Firm ...... 101
Table 26. On-Time and Late Responses ......................... 102
Table 27. Dependent Variable Responses: Late vs. On-Time ................................................................. 104
CHAPTER 1
INTRODUCTION

1.1 Introduction

The purpose of this study is to examine two ethical issues related to the practice of public accounting, the underreporting of chargeable time and premature audit sign-offs, within the context of an integrative model of ethical decision making. With a limited number of exceptions,\(^1\) prior studies of underreporting and premature audit sign-off behaviors have been descriptive accounts of the number of accountants who engage in these activities, or empirical works that focus on a limited number of variables thought to be of interest. In either case, a meaningful application of ethics theory has been absent (Schweikart, 1992).\(^2\) Without a theoretical foundation, research efforts have resulted in a patchwork of findings that often lack context.

The decision making model used in this study provides a theoretical framework in which those elements thought to be

\(^1\) These exceptions include Kelley and Margheim’s (1990) study of dysfunctional auditor behavior within the context of an organizational stress model, Ponemon (1992a, 1992b) and Ponemon and Gahhart’s (1993) studies of underreporting based on stages of moral reasoning, and Lampe and Finn’s (1992) model of auditors’ ethical decision processes.

\(^2\) Although Schweikart was referring to accounting research in general, his comments are applicable to studies which examined underreporting and premature sign-off issues.
significant in the ethical decision making process can be examined. By incorporating decision making models into research efforts, it is anticipated that "model elements can be identified and tested to better understand how and why the decisions are made" (Lampe and Finn, 1992, p. 33).\(^3\)

This type of research approach may produce significant benefits. If organizations understand how individual ethical decisions are made, they may develop more ethical business environments by taking "normative, proactive steps toward reducing ethical conflict and promoting ethical behavior" (Goolsby and Hunt, 1992, p. 55). The public accounting profession may develop more effective ethical guidelines since understanding the ethical reasoning process of accountants and auditors might be "a prerequisite to the legislation of rules and regulations promoting desirable behavior. Rules or guidelines that stress only one mode of ethical reasoning will do little to mitigate the unethical action of individuals whose reasoning is not consistent with this mode" (Ponemon and Gabhart, 1993, p. 43).

Although this study is limited to the examination of two specific ethical issues, it is possible that the decision making model used in this research could be used to

\(^3\) Although the ethical decision making model used by Lampe and Finn (1992) differs from the model used in this study, their comments were directed at the use of decision making models in general.
examine other ethical decisions made in the practice of public accounting.

1.2 Underreporting of Chargeable Time

Public accounting firms use reported chargeable time\(^4\) to bill clients, set time budgets for work assignments, schedule appropriate personnel to jobs, and evaluate employee performance. A firm’s ability to successfully perform these functions depends on the accuracy of the time sheets filled out and submitted by accountants. Yet, the results of previous studies suggest that a majority of accountants have, at some time in their careers, intentionally submitted inaccurate time reports by underreporting their chargeable hours.\(^5\)

In a survey of members of the American Institute of Certified Public Accountants (AICPA) conducted by Rhode (1977), fifty-five percent of respondents admitted that they

\(^4\) Chargeable time is identified with providing services to specific clients, and is potentially billable to those clients. Billable time is the number of hours actually billed to the clients. Any difference between chargeable and billable time is the amount of time written up, or written off.

\(^5\) Underreporting occurs when an accountant does not report all of the hours worked on behalf of a specific client on his/her time sheet. This includes working additional hours without recording them, and shifting chargeable hours to non-chargeable (administrative) categories on the accountant’s time sheet.
had performed audit work without reporting all of their chargeable time. Lightner, Leisenring, and Winters (1983) found sixty-seven percent of respondents had underreported a portion of their chargeable hours sometime during the preceding year. Further, it appears that underreporting activities may be increasing. Cook and Kelley (1988) reported a growing number of auditors who either performed work on their own time, or shifted chargeable hours to non-chargeable categories on their time sheets (compared to the results of Kelley and Seiler's 1982 study).

Widespread underreporting can adversely affect a public accounting firm's ability to generate billable revenues, set and use realistic time budgets, complete quality work on a timely basis, and evaluate employee performance. These consequences are described in the next section.  

1.3 Consequences of Underreporting Chargeable Time

There are a variety of reasons why accountants exceed time budgets: increased job complexity, client-created

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6 Some question whether underreporting is unethical; that even when prohibited by firm policy, informal norms within the firm often consider it a way of "demonstrating a commitment to the firm and also the client" (Dirsmith and Covaleski, 1985, p. 155). However, given specific firm policies prohibiting underreporting, and the potential for adverse impact on firm operations caused by this activity, it would seem that underreporting is unethical behavior (at least from the firm's perspective).
problems, accountant inefficiency, or an unrealistic time budget. In some cases, the additional time is potentially billable. However, because the judgment needed to determine which additional hours are billable comes with experience, these decisions are typically made at by the partners. Underreporting circumvents this decision making process as less experienced accountants write-off chargeable hours by not reporting them. Beyond the (potential) loss of revenues to the firm, client retention decisions may also be affected as underreporting makes it difficult to determine which clients might be undesirable due to repeated billing write-downs.

Because the number of hours budgeted for a current work assignment is often based on the number of hours reported on the prior year’s work (Kelley and Seiler, 1982; Pasewark and Strawser, 1994), underreporting may cause time budgets to be set at unrealistically low levels. The time pressures resulting from these unrealistic budgets can lead to a variety of adverse outcomes, including continued underreporting, assignments not completed on a timely basis, and shortages of available personnel. Even more troubling, studies indicate that time budget pressure is significantly related to the incidence of audit quality reduction behaviors, including premature audit sign-offs and a failure to adequately pursue questionable issues (Alderman and

Time pressures may also affect a firm’s ability to retain qualified employees. Cook and Kelley (1988) found lessened job satisfaction, particularly at staff and senior accountant levels, to be one of the most frequently cited problems arising from time budget pressure. This may explain why underreporters, as a group, were more likely to consider leaving their firms (Lightner, 1981).

Underreporting may impact a firm’s ability to accurately assess employee performance for retention and promotion. Studies indicate that accountants in public practice believe that the ability to meet time budgets is an important factor in their performance evaluations (Kelley and Seiler, 1982; Rhode, 1977). Lightner et al. (1983) found underreporters believe their behavior leads to better performance evaluations, supervisor recognition of competency, and increased job security. However, when employees fail to report all of their chargeable hours, their firm is unable to accurately assess their speed or performance. Further, when employees underreport differing

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7 This echoes concerns expressed in the 1987 report issued by the National Commission on Fraudulent Financial Reporting (Treadway Commission) that fee and budget pressures, and tight reporting deadlines could affect audit quality.
amounts of time, the consistency and fairness of the evaluation process is undermined.

1.4 Premature Audit Sign-offs

Premature audit sign-offs occur whenever auditors document completion of a required procedure (that is not covered by other audit procedures) without performing the work or noting omission of the procedure (Rhode, 1977). Unlike underreporting (where all work is performed), premature audit sign-offs directly affect audit quality and violate professional standards.

In his survey of AICPA members, Rhode (1977) found almost sixty percent of respondents had prematurely signed-off on a required audit procedure sometime during their careers. Further, because he excluded first and second year auditors and non-CPAs from his survey, it is possible that Rhode may have understated the magnitude of premature sign-off activities. In a follow-up study (which included auditors with less than two years of experience), Alderman and Deitrick (1982) found the incidence of premature sign-offs to be even more widespread than had Rhode.8

8 Where Rhode found premature sign-off activity primarily at local and regional firms, Alderman and Deitrick also found premature sign-off activity at national firms. However, the results of these two studies are not directly comparable. Where Rhode asked participants if they had ever prematurely signed-off (even once), Alderman and Deitrick
More recent studies indicate that a substantial number of auditors continue to engage in premature sign-off activities. In 1982, Kelley and Seiler reported that seven percent of partners and managers, and twenty-one percent of senior and staff auditors, admitted that they had engaged in actions which reduced audit quality. By 1988, twenty-one percent of partners and managers, and twenty-two percent of senior and staff auditors, admitted participating in these same actions (Cook and Kelley, 1988). The three-fold increase in the percentage of partners and managers engaging in quality reduction activities is of particular concern since these are the individuals who are responsible for the final review of audit work performed. Raghunathan’s (1991) survey of Big Eight auditors found fifty-five percent had prematurely signed-off at least "very rarely" (p. 76); a level consistent with Rhode.⁹

Examined auditors’ agreement with a series of general statements that premature sign-off activity occurs. The lower percentage reported by Alderman and Deitrick (thirty-one versus Rhode’s fifty-eight percent) may be due to the exclusion of some respondents who believe premature sign-offs occur too infrequently to be considered a common occurrence (Raghunathan, 1991).

⁹ Kaplan (1955) suggests the conventional methodology used in these studies may have understated the incidence of premature sign-off activities. To support this view, he cites the results of Buchman and Tracy’s (1982) study which examined the incidence of premature sign-off activity using both conventional and randomized response techniques (randomized response is designed to overcome participants’ reluctance to answer sensitive questions in a truthful
Rhode (1977) found several reasons for non-performance of audit procedures including time budget pressure, auditor inexperience, poor supervision, boredom or carelessness, and the belief that the omitted procedure was unnecessary or immaterial. He found premature audit sign-offs were most likely to occur in those areas where minimal working paper documentation was compiled, and where standard sources of information had reliably substantiated client records during prior audits. Alderman and Deitrick (1982) reported similar results and noted that the review and evaluation of internal control, payroll audits, inventory procedures (except for physical counts), and work involving expenses were particularly susceptible to premature sign-offs. Raghunathan (1991) found procedures performed early during an audit, including review and testing of internal control, were frequent areas of premature sign-off activity.\textsuperscript{10}

\textsuperscript{10} Prior studies identify time pressure as one of the main reasons for premature sign-offs. Yet, Raghunathan found those procedures identified as most likely to be subject to premature sign-off (internal control testing and analytical review) are usually performed in the earlier stages of the audit when time budget pressure are (presumably) less. Instead of time pressure, Raghunathan found the primary reason for premature sign-offs was the belief that the omitted steps were not essential.
1.5 Consequences of Premature Audit Sign-offs

When an auditor signs off on procedures not performed, he/she is assuming a risk that client records do not contain material misstatements that would be uncovered by performance of the omitted procedures. This behavior not only violates professional standards, it can compromise the overall quality of the audit.\footnote{In his examination of audit failures, Graham (1985) concluded that few audits failed because procedures were not applied to a sufficient number of items (i.e. the result of sampling error). Rather, failures were often attributed to the omission of important audit procedures.}

The costs associated with substandard work can be substantial: litigation settlement costs of Big Six accounting firms alone exceeded $1 billion in 1993; more than twelve percent of the firms’ accounting and audit revenues (Berton, 1995). The profession’s estimated aggregate liability exposure exceeds $30 billion (Dalton, Hill, and Ramsay, 1994; Hanson and Rockness, 1994).

The consequences of premature audit sign-offs (and other practices which contribute to substandard work) do not end with higher litigation costs. Research indicates that increased litigation risk may hinder the ability of public accounting firms to retain experienced personnel (Dalton,
Hill, and Ramsay, 1994). If true, this may contribute to a vicious cycle where (perceived) substandard work creates a hostile legal environment which, in turn, causes experienced personnel to leave. As experienced people leave (and less-experienced personnel take their place), the potential for substandard work may actually increase.

1.6 Summary

Underreporting and premature audit sign-off activities adversely affect the operations of public accounting firms. The ethical decision making model used in this study provides a theoretical framework in which significant factors can be identified and tested to better understand how and why these activities occur.

\[\text{\textsuperscript{12}}\] Forty percent of respondents agreed that decreased profits due to litigation had influenced their decision to leave, and forty-six percent agreed that ongoing litigation would continue to depress profits. Thirty-five percent cited their personal liability for litigation damages as influencing their decision to leave; while thirty-seven percent believed that litigation risks were causing competent people to leave public accounting.
CHAPTER 2

THE ETHICAL DECISION MAKING MODELS

Underreporting chargeable time and premature audit sign-offs may adversely affect a public accounting firm's ability to generate revenues, complete professional quality work on a timely basis, and evaluate employee performance. Hegarty and Sims (1976) suggest that "unethical decision making is a combination of personality, cultural and value orientation, and environmental rewards and punishments" (p. 451). The decision making model used in this study examines a combination of these elements by integrating ethical decision making models developed by Ferrell and Gresham (1985) and Hunt and Vitell (1986), with elements of Kohlberg's (1969) model of cognitive moral development. To better understand the integrated model, it is helpful to first examine the underlying models.

2.1 Cognitive Moral Development

A cognitive moral developmental approach suggests that over time (by assimilation and accommodation) individuals develop abilities which equip them to better recognize, and analyze, the complex relations between elements involved in moral decisions. A part of this process includes developing the ability to recognize the possible contingencies and
consequences associated with specific courses of action and to consider the rightful needs of all parties in making a judgment that satisfies a moral ideal (Goolsby and Hunt, 1992).

Kohlberg (1969) proposed that individuals progress through three broad levels (or six stages) of cognitive moral development. However, the rate of each individual’s progression is dictated by their own belief system. Because of this difference in rate of progression, individuals behave differently in similar ethical situations (i.e., they are at different stages in their moral development).

The levels of moral development are based on the reasons that individuals use to justify their moral choices (Figure 1 in Appendix A). At level one (pre-conventional morality), individuals are particularly concerned with their own immediate interests and concrete results, especially external rewards and punishments. At level two (conventional morality), moral value is found in performing good roles which conform to the expectations of society and significant others. At this level, individuals seek approval, and try to help and please others. At the highest level of moral development (post-conventional or principled morality), universal values and principles, conscience, and mutual respect guide moral judgments. Only those individuals with a highly developed capacity for advanced
logical reasoning are able to advance to this level. The progression from pre- to post-conventional morality indicates that as individuals develop, they rely less on external prescriptions alone and refer more to their own inner sense in order to determine when a given action is appropriate and provides the greatest benefit to all parties (Kurtines, 1984).

2.2 Contingency Model of Decision Making

In 1985, Ferrell and Gresham developed a contingency model to address the absence of theoretically integrated ethical decision making models in marketing research.\(^{13}\) A contingency approach suggests that individual decision making is determined by factors which are external to the decision making process, but which are found within the individual, the organizational setting, or the environment.\(^{14}\) Ferrell and Gresham’s resulting multi-stage

\(^{13}\) Absent a theoretical basis, those researchers who study marketing ethics had "resorted to analyzing various lists of activities to determine if marketing practitioners feel specific behaviors are ethical or unethical. This research seems unenlightened by evidence that ethical standards are constantly changing and that they vary from one situation/organization to another" (Ferrell and Gresham, 1985, p. 87-88). This comment would also seem to apply to behavioral accounting research.

\(^{14}\) While social and cultural environmental factors may define ethical issues, they are either not included in Ferrell and Gresham’s (1985) framework, or they are treated as unmeasured constants.
model examines these determinants (individual cognitive structure, significant others in the organization, and the opportunity for action), without evaluating the ethical content of the behavior itself (Figure 2 in Appendix A).

2.3 General Model of Marketing Ethics

While much of the early marketing ethics research focused on developing normative (rule-based) guidelines to help professionals behave in an ethical manner, Hunt and Vitell (1986) constructed a positive model of ethical decision making which seeks to explain the decision making process (Figure 3 in Appendix A).\(^{15}\)

The decision making process begins when an individual perceives facing an ethical problem and responds by searching for alternative solutions to the problem.\(^{16}\) Once alternatives have been identified, they must be evaluated.

\(^{15}\) Normative models focus on the rules used to guide individuals in their ethical decision making. In contrast, positive models attempt to explain why people behave in an ethical (or unethical) manner. Positive models appear to provide a more complete analysis of the ethical decision making process; Lampe and Finn (1992) found their positive model better described how and why auditors make ethical decisions than did a AICPA Code-implied model.

\(^{16}\) Environmental factors and personal experiences may influence the perception of ethical situations including available alternatives, the probability and desirability of consequences, and the importance of stakeholder groups. These differences in perceptions may explain, in part, differences in behavior.
In the Hunt and Vitell model, this involves deontological and teleological evaluation processes.

These processes are fundamentally different. A deontological evaluation focuses on the behavior itself by comparing the inherent rightness, or morality, of each alternative to the individual's own predetermined deontological norms (i.e., their own personal values, or rules of behavior). In contrast, a teleological evaluation is concerned with the value found in the consequences of the behavior, such that a behavior is judged ethical if it produces the greatest balance of good over evil for the greatest number in comparison to any other alternative behavior. The process of determining value involves evaluating four elements: the perceived consequences of each alternative for each 'stakeholder' group, the probability that each consequence will occur to each group, the desirability of each consequence, and the importance of each group.\(^\text{17}\)

\(^{17}\) The main objection to deontological ethical theories is the seeming impossibility of developing "a complete system of rules that do not contain a potentially infinite number of exceptions" and do not have "conflicts among the rules" (Hunt and Vitell, 1986, p. 7). In short, deontology suffers from a weakness in explaining exceptions to universal truths (Hansen, 1992).

Teleological theories suffer from questions including whose good is to be maximized (since stakeholder groups and their perceived importance vary across situations and individuals), how to measure the greatest good for the
While it is possible that some individuals in certain situations will follow the guidelines of only one evaluation process, Hunt and Vitell (1986) indicate this is unlikely across many individuals and many different situations. Instead, they suggest that each individual’s ethical judgments are "a function of the individual’s deontological evaluation (i.e., applying norms of behavior to each of the alternatives) and the individual’s teleological evaluation (i.e., evaluating the sum total of goodness versus badness likely to produced by each alternative)" (p. 9).

An ethical judgment results from this process which, in turn, leads to intent and behavior.\(^{18}\) Hunt and Vitell (1986) also indicate situational constraints may directly influence behavior. Finally, Hunt and Vitell suggest a learning construct through an evaluation feedback of post-behavioral consequences. The influence of post-behavioral consequences upon ethical decision making is supported by the greatest number (given many different types of outcomes and many different kinds of people with different utility functions), and whether maximizing the greatest good provides the morally "correct" solution (Hunt and Vitell, 1986, p. 7).

\(^{18}\) Intention is modeled as an intervening variable between ethical judgment and behavior for a couple of reasons: first, ethical judgments and intention together are a better predictor of behavior than ethical judgments alone (Ryan, 1976); and second, ethical judgments may differ from intention (e.g., underreporting chargeable time to receive better performance evaluations).
Hegarty and Sims’ (1978) finding that individual ethical behavior can be conditioned through a system of rewards and punishments.

2.4 Integrated Model of Ethical Decision Making

The ethical decision making models proposed by Ferrell and Gresham (1985), Hunt and Vitell (1986), and Kohlberg (1969) focus on specific elements that influence decision outcomes. Ferrell, Gresham, and Fraedrich (1989) integrate these models into a comprehensive framework that incorporates both their unique features and their shared elements (Figure 4 in Appendix A). The resulting model contains sequential stages of awareness, cognition, evaluation, moral determination, and action.

During the first stage of the model, the individual becomes aware that he/she faces an ethical issue. As part of this process, the individual must recognize that his/her decision will affect others, and that some choice is involved (Velasquez and Rostankowski, 1985).

\[\text{\textsuperscript{19}}\text{Ferrell and Gresham (1985) take a macro approach by focusing on elements of social learning and organizational structure while Hunt and Vitell (1986) and Kohlberg (1969) incorporate elements at the individual level with models which detail stages of cognitive moral development and the use of deontological and teleological moral philosophies.}\]

\[\text{\textsuperscript{20}}\text{If the individual fails to perceive the ethical content in a problem situation, then the subsequent elements of the model do not come into play (Hunt and Vitell, 1986).}\]
After awareness of an issue, the individual’s decision process moves through stages of cognition and evaluation. The inclusion of cognition is supported by Kohlberg’s proposition that differences in individual moral development may explain differences in ethical behavior, while the evaluation element acknowledges that individuals use moral philosophies when making decisions.

Consistent with Hunt and Vitell, Ferrell et al. (1989) indicate that intention intervenes between moral evaluation and behavior. Intention is also modeled so that it can be directly influenced by situational constraints (described as organizational culture, opportunity, and individual moderators). Inclusion of a post-action evaluation of consequences and behavior is consistent both with Kohlberg’s theory of moral development, and the learning processes found in the Ferrell and Gresham, and Hunt and Vitell models.

By incorporating the unique features and deleting the redundancies of prior models, Ferrell et al. (1989) provide a more complete and integrated model of the ethical decision making process. This model, if empirically tested, "could make a substantive contribution to understanding how managers make ethical decisions" (p. 62).
CHAPTER 3

MODIFIED MODEL OF ETHICAL DECISION MAKING
AND PROPOSED RELATIONS

The Ferrell et al. (1989) model provides a theoretical framework of ethical decision making. However, because the data was gathered using a mail-in questionnaire, it was necessary that some modifications be made to the model before it could be empirically tested. These modifications, and the proposed relations between model elements, are shown in the modified model (Figure 5 in Appendix A) and are described in this chapter.

3.1 Modifications to the Ethical Decision Model

The recognition of underreporting and premature audit sign-offs as ethical issues is not specifically included in the modified model. Consistent with research which has examined these behaviors, it is assumed that participants perceive underreporting and premature audit sign-offs as unethical. Further, given the methodology used in this study (the cover letter included with each questionnaire indicated that participants would be helping the researchers "identify certain factors affecting the performance of audit fieldwork", and promised that responses would be kept confidential), it seems reasonable to assume that
participants entered the experiment aware that sensitive issues were being addressed. It was felt that providing any further information about the ethical nature of the issues might unduly sensitize the participants and influence their responses.

Organizational culture is defined as the prevailing normative structure, referent others, and obedience to authority (Ferrell et al., 1989). Although prior studies indicate some differences in the ethical responses of Big Six and local firm accountants, these results appear to be related to the size of the employing firm rather than a specific organizational culture. Because participants in this study were employed by large (regional and national) public accounting firms, the influence of organizational culture on individual ethical behavior is assumed to be (an unmeasured) constant, and is, therefore, not included in the modified model. Further, perceptions of the existing normative structure are measured at the individual level in the model’s Moral Evaluations stage.

Ferrell et al. (1989) model behavior as the end of the decision making process (ignoring for the moment, the post-behavior evaluation of the consequences and the feedback loop). Because the data in this study were gathered through the use of an anonymous mail-in questionnaire (rather than an on-site experiment), direct observation of participant
behavior was not possible. With this type of methodology, participant intent is often used as a surrogate for the (subsequent) behavior.\textsuperscript{21} Therefore, the participant's self-rated intent to underreport chargeable time or to prematurely sign-off on an audit procedure, rather than the actual behavior itself, serves as the dependent variable.

The model also includes a post-behavior evaluation of consequences. Again, because of the methodology used in this study, there was no opportunity to examine the learning process. Therefore, this feedback loop was omitted from the modified model.

3.2 The Modified Ethical Decision Model

The causal model diagrams (Figures 6 and 7 in Appendix A) indicate three elements - moral evaluations, opportunity, and individual difference variables - are expected to directly affect intent regarding underreporting and premature sign-off behaviors. Cognition and individual difference variables are expected to indirectly affect intent through mediating variables. The hypothesized relations between model elements and ethical intent are formally stated in the following sections. Expected

\textsuperscript{21} While possible that intentions may differ from subsequent behavior, "the best predictor of a person's behavior is his intention to perform the behavior" (Fishbein and Ajzen, 1975, p. 381).
relations between model elements and indirect relations are not formally stated beyond presentation of the causal model diagrams. Expectations about other issues and the operationalization of the variables are also discussed in this chapter.

3.3 Cognitive Moral Development

The influence of cognitive moral development on underreporting and premature sign-off behavior is supported by the results of some prior studies. Ponemon (1992a) found staff auditors with lower levels of cognitive moral development underreported more time than auditors with higher levels of development. Lampe and Finn (1992) found an auditor's level of moral development significantly affected his/her ability to judge alternative actions in ethical decisions. Ponemon and Gabhart (1993) summarized their results by stating that auditors with relatively high levels of ethical reasoning were more likely to perceive underreporting and premature sign-off activities in a negative light than auditors with lower levels of ethical reasoning.\(^\text{22}\)

\(^{22}\) This may explain why Lightner et al. (1983) found some underreporters did not consider the practice to be unethical, or Alderman and Deitrick's (1982) finding that some of the auditors who prematurely signed-off were unaware of the consequences of their actions.
However, the results of research examining the relation between moral development and ethical behavior are not entirely consistent. For example, studies indicate that managers and partners are less likely than staff and senior accountants to engage in underreporting and premature sign-off activities. This is consistent with Lampe and Finn's (1992) finding that managers have higher levels of moral development than staff accountants, and Ponemon and Gabhart's (1993) finding that the level of moral reasoning increased from staff through partner levels for chartered accountants (CA) employed by Canadian accounting firms. In contrast, Ponemon (1990) found managers and partners had lower levels of moral development than staff and senior accountants,\(^{21}\) while Ponemon (1992b) and Ponemon and Gabhart (1993) generally found the level of CPAs' moral reasoning decreased as they were promoted (from staff to senior to manager to partner). This inverse relation between job level and moral development would suggest that those (managers and partners) who are less likely to engage in underreporting and premature sign-off activities also have lower levels of moral development.

With these inconsistencies in mind, the following are

\(^{21}\) There may be some problem with comparing the results of these studies: Ponemon (1990) used the Moral Judgment Interview to measure level of moral development; the other studies used the Defining Issues Test.
expected:

\(H_{1a}\) Cognitive moral development is negatively related to the intent to underreport chargeable time.

\(H_{1b}\) Cognitive moral development is negatively related to the intent to prematurely sign-off on audit procedures.

3.4 Moral Evaluations

Ponemon and Gabhart (1993) suggest that "the magnitude of an ethical conflict is a function of the actor's perception of all parties involved as well as the possible consequences to the actor and the players" (p. 21). The prominence of players and perceived consequences is consistent with the deontological/teleological process modeled by Hunt and Vitell (1986).

Deontological evaluations compare the inherent rightness, or morality, of behavior to the individual's personal values. Underreporting and premature audit sign-offs could be considered unethical behaviors because they violate professional standards and firm policies, and may compromise the quality of the work performed by the public accounting firm.\(^{24}\)

\(^{24}\) Ponemon and Gabhart (1993) suggest "individuals with a high degree of integrity tend to form his or her ethical judgment free from the biases and pressures created both within and outside the public accounting firm" (p. 33). This reliance on personal integrity to mitigate unethical behavior supports a deontological approach.
The use of a deontological evaluation process is negatively related to the intent to underreport chargeable time.

The use of a deontological evaluation process is negatively related to the intent to prematurely sign-off on audit procedures.

In contrast, a teleological approach evaluates the ethical content of behavior based on the value of the consequences generated by that behavior; so that behavior is considered ethical if it produces the greatest balance of good over evil compared to the other available alternatives. This consequence-based evaluation is dependent on the individual’s own perceptions about the relative goodness of each alternative (Hunt and Vitell, 1986).

Swindle, Phelps, and Broussard (1987) suggest that accountants tend to use a teleological approach to categorize behaviors as either acceptable or unacceptable. Lightner et al.’s (1983) finding that underreporters have greater expectations about the rewards to be received from underreporting activity would seem consistent with a consequences-based evaluation.

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25 Swindle et al. (1987) asked CPAs to read six short vignettes (each describing questionable behavior) and to explain why the behavior was either acceptable or unacceptable. Reasons selected by CPAs were primarily teleological - 58% of responses used some type of cost/benefit analysis of the behavior’s consequences. Interestingly, a deontological rationale was predominant in only one vignette - where the behavior was padding a time report (the opposite of underreporting chargeable time).
3.5 Opportunity

Weaver and Ferrell (1977) and Zey-Ferrell and Ferrell (1982) found the opportunity for unethical behavior to be a better predictor of behavior than the individual's personal beliefs. Zey-Ferrell et al. (1979) found opportunity significantly influenced behavior in ethical situations, while Newstrom and Ruch (1975, 1976) concluded that differences in ethical beliefs and behavior were often a function of opportunity.

These findings appear applicable to public accountants. CPAs perceive that other public accountants have numerous opportunities to engage in unethical activities (Finn, Chonko, and Hunt, 1988). Lightner et al. (1983) found over eighty percent of respondents believe it is "either extremely or very possible" to successfully underreport their chargeable time without repercussions. Alderman and Deitrick (1982) reported that more than seventy percent of respondents believe premature sign-offs result from inadequate supervision, and that they are more likely to occur in those areas where the risk of being caught is small (i.e. with those procedures which require limited workpaper documentation). Weaver and Ferrell (1977), Zey-Ferrell and Ferrell (1982), and Zey-Ferrell, Weaver, and Ferrell (1979) all found that the perceived opportunity to engage in unethical behavior without getting caught was a significant
predictor of ethical decision making.

H₃a The belief that it is possible to successfully underreport is positively related to the intent to underreport chargeable time.

H₃b The belief that it is possible to successfully prematurely sign-off is positively related to the intent to prematurely sign-off on audit procedures.

Ferrell and Gresham (1985) suggest that the perception of opportunity is also influenced by the existence of professional codes, corporate policies, and punishment. However, the results of prior studies indicate that professional codes provide only limited guidance to accounting practitioners. Similarly, the influence of firm specific policies on ethical behavior is questionable. Margheim and Pany (1986) and Pany, Pourciau, and Margheim (1989) failed to find a consistent, significant relation between a firm's specific quality control standards and underreporting or premature sign-off activity. For this reason, the influence of professional codes and corporate policies has not been included as an element of opportunity in the modified model. However, the impact of corporate codes on underreporting behavior is examined in a separate

26 The lack of reliance on (or knowledge of) their professional code of ethics appears to be true for CPAs. Davis (1984) found practitioners lacked knowledge about specific applications of the AICPA code. Beets and Killough (1990) found that when presented with hypothetical cases involving unethical behavior, CPAs incorrectly determined whether the action violated the Code of Professional Conduct in about twenty-three percent of the cases.
analysis.

3.6 Rewards

Prior studies have examined the relation between time budget performance and rewards. Consistently, results indicate that the ability to meet budget is perceived by accountants to be an important factor in determining their advancement within their firm (Kelley and Seiler, 1982; Lightner et al., 1983; Rhode, 1977). The desire to meet time budgets (as a way to either achieve positive rewards, or avoid negative rewards) appears to influence underreporting and premature sign-off behaviors. Lightner et al. (1983) found those who underreport were more likely to doubt their ability to meet time budgets, and to believe that the expected rewards (specifically, external rewards related to better performance evaluations, supervisor recognition of competency, and increased feelings of job security) outweighed the potential punishments. Alderman and Deitrick (1982) concluded that staff auditors believed that their own abilities were at fault when budgets were exceeded and responded by prematurely signing-off in order to meet the budget. Pany et al. (1989) found subjects believed that others were more likely to prematurely sign-off to meet a time budget when exceeding the budget would lead to a negative performance evaluation.
\( H_{4A} \) The belief that underreporting will lead to expected rewards is positively related to the intent to underreport chargeable time.

\( H_{4B} \) The belief that premature sign-off activities will lead to expected rewards is positively related to the intent to prematurely sign-off on audit procedures.

3.7 Job Level

Knowledge and experience in public accounting are due, in large part, to the length of time spent in practice, and are usually reflected in the individual's job level within the firm. Further, given that large public accounting firms tend to have "well-defined hierarchies and clear lines of authority" (Pratt and Beaulieu, 1992, p. 671), and that much of the work is performed by teams who must closely coordinate their work (Emby and Gibbins, 1989; Solomon, 1987), an individual's job level strongly defines his/her role-set of significant others and relative power position within the organization.

The results of prior studies indicate that an individual's job level is significantly related to his/her underreporting activities. Cook and Kelley (1988), Lightner (1981), and Rhode (1977) all found the incidence of underreporting to be highest among staff and senior-level accountants. Lightner (1981) found seventy percent of staff accountants, but only forty-two percent of partners, had underreported their chargeable hours sometime during the
previous year.

$H_{5a}$ Experience in public accounting, as measured by job level, is negatively related to the intent to underreport chargeable time.

The results of prior studies also indicate that job level is significantly related to premature sign-off activities. Alderman and Deitrick (1982) found staff-level auditors more than three times as likely as partners to believe that premature sign-off activity occurred within their own firms. Cook and Kelley (1988) and Kelley and Seiler (1982) reported staff and senior-level auditors more likely than managers and partners to engage in acts of quality reduction (including premature audit sign-offs). Rhode (1977) concluded that staff-level auditors were the most vulnerable to premature sign-offs, while Raghunathan (1991) found senior accountants most likely to prematurely sign-off on audit procedures.

$H_{5b}$ Experience in public accounting, as measured by job level, is negatively related to the intent to prematurely sign-off on audit procedures.

3.8 Locus of Control

Locus of control is defined as a "generalized expectancy that rewards, reinforcements, or outcomes in life are controlled either by one’s own actions (internality) or by other forces (externality)" (Spector, 1988, p. 335). An internal believes that outcomes result from their own
efforts and are "more likely to take responsibility for consequences and rely on his or her internal determination of right and wrong to guide behavior." Externals believe results are attributable to things beyond their control and are "less likely to take personal responsibility for the consequences of ethical/unethical behavior and are more likely to rely on external forces" (Trevino, 1986, p. 610).

If those individuals with an internal locus of control are more likely to rely on their own determination of what constitutes right and wrong behavior than those with an external locus of control, it would be expected that "internals" will exhibit greater consistency between their moral judgment and their subsequent actions; and would be less likely to engage in unethical behaviors.

H₆ₐ An internal locus of control is negatively related to the intent to underreport chargeable time.

H₆₈ An internal locus of control is negatively related to the intent to prematurely sign-off on audit procedures.

3.9 Time Budget Pressure

Public accounting firms are under substantial pressure from their clients to hold their fees down. However, hourly billing rates must increase as labor and overhead costs rise. Therefore, to maintain client fees at (or near) current levels, firms must reduce the number of hours budgeted for each job. While it is possible that these
reductions in the number of budgeted hours may be (partially) offset by more efficient techniques, Cook and Kelley (1988) found accountants believed time budgets were increasingly difficult to meet; some felt underreporting was one way to deal with increased time budget pressure.

As time budgets shrink, the number of hours by which these budgets are exceeded would be expected to increase. Kelley and Margheim (1990) found underreporting activity increased as time budgets became more difficult to achieve. Since the inability to meet time budgets has been identified as a factor in the decision to underreport (Lightner, 1981; Lightner, Adams, and Lightner, 1982), and since the results of prior studies indicate that a substantial number of accountants respond to time budget pressures by underreporting their chargeable hours (Cook and Kelley, 1988; Kelley and Margheim, 1990; Kelley and Seiler, 1982; Lightner et al., 1983; and Rhode, 1977), it would be expected that increasing the number of hours over budget (indicating increased difficulty in meeting budget) will result in increased underreporting activity.

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27 Kelley and Margheim (1990) found an inverted U-shape relation between the difficulty of meeting time budgets and underreporting activity. In their study, underreporting increased as budgets became increasingly harder to meet. Only when the budget was perceived as "impossible to achieve", did underreporting activity decline.
An increase in time budget pressure is positively related to the intent to underreport chargeable time.

Alderman and Deitrick (1982) found fifty-one percent of respondents believe that time budget pressures significantly affect the performance of an audit. Almost half felt it is necessary to save time elsewhere if the budget is exceeded during a particular procedure (premature sign-offs were among the time-saving procedures mentioned by respondents). Kermis and Mahapatra (1985) found auditors respond to time budget pressures by reducing their assessment of the hours required to complete audit procedures (although the reductions appear to be made in a rational fashion so as to minimize the adverse effects). Raghunathan (1991) found time limitations frequently cited (second only to the low risk of not detecting material errors) as a reason for premature sign-off activity.

These findings indicate that auditors perceive facing contradictory goals: maintaining high quality work standards while meeting increasingly tighter time budgets. The result is that "a naive commitment to the time budget can produce substandard audit work, and the probability of this occurring has increased in recent years" (Alderman and Deitrick, 1982, p. 59).

An increase in time budget pressure is positively related to the intent to prematurely sign-off on audit procedures.
3.10 Organizational Sanctions and Underreporting; Audit Procedure Materiality and Premature Sign-offs

Two other items, the influence of organizational sanctions and audit procedure materiality, have been linked to underreporting and premature sign-off activities. Because of the limited available sample size, it was not practical to manipulate these factors within the model. Instead, a repeated measures design was used in the questionnaire to examine the influence of organizational sanctions and audit procedure materiality on underreporting and premature sign-off behaviors. These items, and the expected relations, are discussed in this section.

3.10.1 Organizational Sanctions and Underreporting

Baumhart (1961) found firm-specific policies have a greater influence on an individual's behavior than the ethical climate within their profession. Cooper and Frank (1992) noted that respondents tend "to view certain factors related to their business environment as being more helpful to them in dealing with ethical dilemmas than those related to their professional environment" (p. 53).

The current popularity of corporate codes of conduct suggests that companies view them as a way in which to influence employee behavior. And while simply adopting a code may not significantly reduce unethical behavior,
studies indicate that compliance with code provisions increases when employees are punished for violations (Bellizzi and Hite, 1989; Hegarty and Sims, 1979; Lacznia and Murphy, 1985); particularly when the punishment starts out at a fairly high level and is relatively intense (Arvey and Ivancevich, 1980).

However, it is not clear that codes of conduct and punishment always influence ethical behavior. For example, Lacznia and Indirreden (1987) found codes of conduct with "presumably enforced sanctions" had a limited, but not significant, influence upon ethical decisions. Marghein and Pany (1986) and Pany et al. (1989) found that a "quality control standard" did not significantly affect the likelihood of subjects underreporting.\(^{28}\)

With this inconsistency in mind, the following is expected:

\(H_3\): The use of appropriate organizational sanctions will reduce the likelihood of underreporting behavior.

\(^{28}\) Marghein and Pany (1986) and Pany et al. (1989) used two levels of quality control standard: no policy and a written policy which prohibited underreporting. While neither study found that a quality control standard affected the likelihood of subject underreporting, Pany et al. (1989) did find that a written policy did significantly influence the subjects' perceived likelihood of others engaging in underreporting activity.
3.10.2 Audit Procedure Materiality and Premature Sign-offs

The results of prior studies indicate that the perceived materiality of a specific audit procedure is significantly related to the likelihood that auditors will prematurely sign-off on that procedure. Alderman and Deitrick (1982) found that over a third of respondents believe an auditor's professional judgment is always sufficient to overrule (i.e. not perform) a specific audit procedure. Among the reasons most often cited by auditors for not performing specific procedures is a belief that the procedure is not material or necessary (Rhode, 1977), and a low risk of not detecting material errors if the procedure is not performed (Raghunathan, 1991).

When an audit procedure is believed to be immaterial to the conduct of the audit, the likelihood of premature sign-off behavior will increase.
CHAPTER 4
RESEARCH DESIGN AND METHODOLOGY

A 14 page questionnaire was administered to accountants employed by six regional and national public accounting firms. Each of the offices participating in this study services a metropolitan area located in the eastern United States. Initial contact was made with a partner in each firm. Upon receiving agreement to participate in the study, questionnaires were mailed to a contact partner who was responsible for distributing the questionnaires to participants. After completing the questionnaire, each participant was instructed to return the questionnaire directly to the author. Pre-addressed, postage-paid envelopes were distributed with the questionnaires for this purpose.

To reduce the probability of misleading responses, a cover letter was attached to each questionnaire. The letter asked participants to provide their own responses to the questions; that there were no "right" or "wrong" answers. The letter also promised participants complete anonymity. Only the pre-addressed, postage-paid envelopes were coded, and only so that the questionnaires could be identified by the participating office.

The results of prior studies indicate that partners are
significantly less likely to engage in underreporting and premature sign-off activities. It may be partners do not face the same performance pressures as their employees (particularly in the up-or-out paradigm typically found in public accounting firms). Or perhaps, as owners of their firms, partners realize that behaviors which are detrimental to their firms are also detrimental to their self-interests. When non-equity employees engage in underreporting and premature sign-off activities to the detriment of their firms, their behaviors are unethical. It is less clear that when owners engage in activities which damage their firms, that their behavior is unethical. For this reason, a decision was made to exclude partners from the sample and to distribute the instrument only to the firms’ non-equity employees.

4.1 Research Instrument

The first section of the instrument contains questions about demographic information and the participant’s work locus of control. This is followed by the short (three-story) version of the Defining Issues Test which measures an individual’s stage of cognitive moral development. The third section of the questionnaire contains three of the Cohen et. al. (1993) vignettes which measure deontological and teleological evaluation processes.
Each participant then assessed their ability to successfully underreport chargeable time, to prematurely sign-off on audit procedures, and to meet time budgets without engaging in each of these behaviors. Participants were also asked whether underreporting or premature sign-off activities lead to personal rewards.

After completing these parts of the questionnaire, each participant responded to two hypothetical case scenarios; the first examining underreporting, and the second involving premature audit sign-off activities²⁹ (a copy of the questionnaire is included in Appendix B).³⁰

The operationalization of the measures used in the questionnaire, and in the case scenarios, is described and supported in the following sections.

²¹ Consideration was given to shuffling the order of the underreporting and premature audit sign-off case scenarios. However, there was concern that in those instances where the premature sign-off scenario was first, participants might be unduly sensitized to ethical issues. For this reason, the underreporting scenario preceded the premature sign-off scenario in all instruments. To the extent that this ordering created a carry-over effect, the results related to premature sign-off behaviors may be subject to limitation.

³⁰ Although an experimental approach using hypothetical scenarios has certain shortcomings, the approach does provide a high degree of control, and a strong basis for examining cause and effect relations.
4.2 Cognitive Moral Development

To measure an individual's level of moral development, Rest (1979a) developed the Defining Issues Test.\textsuperscript{31} The DIT is a self-administered instrument containing a series of hypothetical moral dilemmas. For each dilemma, subjects rate twelve given statements on the basis of each statement's importance relative to the dilemma (each statement represents the type of thinking typical of one of the stages of moral development).\textsuperscript{32} Subjects then rank order the four statements which they consider to be most significant in resolving the dilemma. Points are assigned to these four statements based on each one's importance ranking - four points for the most important statement, three points for the second most important statement, two points for the third most important statement, and one point for the fourth most important statement.

The number of points corresponding to statements of principled reasoning (typical of stage 5 or 6 moral development) are summed and divided by one-tenth the number

\textsuperscript{31} Initially, Kohlberg (1981) constructed the Moral Judgment Interview to measure moral development. However, criticisms regarding the subjectivity of the scoring scheme (including gender bias), and the difficulties of collecting data through an interview process, makes the MJI impractical for this study. In contrast, the DIT is a self-administered survey which can be objectively scored.

\textsuperscript{32} Each statement is rated as being of either "great", "much", "some", "little", or "no" importance to the dilemma.
of DIT dilemmas used.\textsuperscript{33} The resulting P score (the percentage of total possible points assigned to stage 5 and 6 statements) measures the relative importance that an individual assigns to principled considerations in the ethical decision process. The P score provides a measure of individual moral development along a continuum rather than along stages of development, and where higher P scores indicate higher levels of moral development. The use of a continuous, rather than a discrete, measure of moral development is a departure from Kohlberg's model. However, it is consistent with Rest's (1979b) suggestion that individuals have the ability to reason at more than one cognitive stage for any given moral dilemma.

There are two versions of the DIT, a six vignette version and a shorter three vignette subset. Although not quite as reliable, the short version correlates highly (.91 to .93) with the longer version and possesses corresponding measurement properties (Rest, 1986).\textsuperscript{34} Due to practical considerations regarding the length of the instrument and

\textsuperscript{33} For the three story version of the DIT, the total points corresponding to stage 5 and 6 statements are divided by .3.

\textsuperscript{34} The short DIT consists of three of the six moral dilemmas used in the long version. These three dilemmas (Heinz and the Drug, Escaped Prisoner, and Newspaper) were selected because they have the highest correlation of any three story subset with the full six story set (Rest, 1993).
response rates, the short version of the DIT was used in the questionnaire.

The DIT has been extensively used in prior studies to measure moral development. A review of these studies concludes there is a (moderate) link between moral judgment (measured using the DIT) and behavior (Thoma and Rest, 1986). Test-retest reliabilities for P scores usually range in the high .70's. Internal consistency appears acceptable; Cronbach alphas generally average in the high .70's (Davison and Robbins, 1978).

4.3 Moral Evaluations

In their review of prior studies which had examined ethics in marketing, Reidenbach and Robin (1989, 1990) identified five primary normative philosophies of ethics (deontology, egoism, justice, relativism, and utilitarianism) that individuals use when assessing the ethical content of a particular action. They also found

35 This includes a substantial number of studies examining the ethical behavior of accountants.

36 Cohen, Pant, and Sharp (1994) provide concise definitions of these constructs: deontological - extent that an action is consistent with an individual's duty, or an unwritten contract or obligation; egoism - extent to which one chooses actions based on self-interest; justice - criterion based on fairness to all; relativism - extent to which an action is considered acceptable in a culture; and utilitarianism - extent that an action is efficient, or leads to the greatest good for the greatest number.
that most of these studies had focused on deontological and/or utilitarian philosophies and typically used a single global measure which often did not provide enough detail to understand the ethical perspective used in the decision.

To correct what they believed to be a limited focus and overly simplistic measures, Reidenbach and Robin (1988) developed a multidimensional ethics scale consisting of 33 seven-point bi-polar semantic differential items. Using this scale in conjunction with three short retail marketing-based case scenarios, Reidenbach and Robin extracted factor patterns which indicated "that individuals do not use either a purely deontological or utilitarian or any other philosophically based set of criteria in evaluating the ethical content of marketing activities" (p. 876).

In 1990, Reidenbach and Robin refined their scale by reducing the original scale to eight items. With this shorter scale, Reidenbach and Robin were able to identify three moral dimensions (broad-based moral equity,

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37 Subjects read a case scenario describing a specific behavior. They then evaluated the behavior along a seven point continuum (where each end of the continuum is anchored by one of the differential items) for each of the 33 bi-polar pairs. For example, one bi-polar pair is Just/Unjust. Subjects evaluated the behavior along a continuum where one end is Just, and the other end is Unjust.
relativism, and contractualism). However, because this measure explained only 34 percent of the variance in subject intent, Reidenbach and Robin suggested that future studies might examine the relation "between an individual's ethical evaluative criteria and their stage of moral development. Studies specifically examining the linkages between moral development and resulting sets of evaluative criteria might enhance the predictability of Kohlberg and Rest's work" (Reidenbach and Robin, 1990, p. 649).

Flory, Phillips, Reidenbach, and Robin (1992) extended the use of the eight item scale to ethical decision making in an accounting context by using the scale in conjunction with four accounting-based case scenarios and administering the instrument to Certified Management Accountants. Their results suggest that "three dimensions - moral equity, relativism, and contractualism - capture a substantial amount of the decision dynamics used by the respondents to make ethical judgments" (p. 298).

38 While Reidenbach and Robin's eight item scale instrument had a limited deontological dimension (contractualism), the other factors extracted did not support an individual's reliance upon a set of teleological principles in the ethical decision making process. This finding is not consistent with the Ferrell et al. model.

39 The Ferrell et al. model provides a relation between cognitive moral development and a deontological/teleological moral evaluation process. The importance of this research issue was also discussed by Cohen et al. (1994).
However, the results of this study were criticized on several grounds. As Jones and Ponemon (1993) note, the scenarios described unambiguous ethical conflicts that could be resolved simply by referring to the Institute of Management Accountant’s code of conduct. The use of cases with "black or white" resolutions limits the significance of certain ethical dimensions in the decision making process. Further, because the scale was limited to three dimensions (and omitted other ethical rationales, like utilitarianism), Hansen (1992) questioned whether an eight item scale could sufficiently measure an individual’s ethical decision making philosophy.

Cohen, Pant, and Sharp (1993) were interested in applying a multidimensional scale to an accounting context. Like Hansen, Cohen et al. believed the eight item scale was insufficient. In particular, they noted that a utilitarian dimension had not emerged as a factor in Reidenbach and Robin’s (1990) study even though Fritzsche and Becker (1983) found most managers "tend to follow a utilitarian philosophy of ethics" (p. 298). Further, omission of a utilitarian dimension had particular relevance to studies of accountants since, as Cohen and Pant (1991) suggested, utilitarianism is compatible with the cost/benefit approach commonly found in accounting situations. Accordingly, Cohen et al. sought to extend the Reidenbach and Robin scale by examining the
significance of a utilitarian dimension for accounting subjects.

Using 15 of Reidenbach and Robin's (1988) original 33 items\(^{10}\), Cohen et al. (1993) constructed a scale which generated two-to-four factor solutions when used with Reidenbach and Robin's retail marketing-based scenarios and with four new accounting-based scenarios. Consistent with Reidenbach and Robin (1990), Cohen et al. found justice/relativist and deontological ("contractualism") factors. A utilitarian dimension was also extracted in the factor solution (with the Cohen et al. accounting scenarios and Reidenbach and Robin scenarios). The appearance of a utilitarian factor with both the retail and the accounting-based scenarios suggests that "these factors are not context-specific" (Cohen et al., 1993, p. 22).

The presence of deontological and teleological dimensions is consistent with the Ferrell et al. (1989) model. The similarity of the factor solutions of the Cohen et al. and the Reidenbach and Robin case scenarios (using the 15 item scale), and the prior research record of the Reidenbach and Robin scale, validate the Cohen et al. case scenarios and multidimensional scale. Because of this, the

\(^{10}\) The 15 scale items were distributed among the moral constructs: utilitarianism - 3 items, deontological - 3 items, egoism - 3 items, justice - 2 items, and relativism - 4 items.
15 bi-polar item scale and three of the four accounting-based scenarios developed by Cohen et al. were used to measure the moral evaluation element of the Ferrell et al. model.\footnote{Cohen et al. (1993) developed scenarios entitled Sibling, Bankruptcy, Community Service, and Merger. The Community Service scenario was dropped to shorten the questionnaire. Per discussion with Dr. Cohen, dropping this scenario does not affect the instrument’s validity.}

Subsequent to the use of the Cohen et al. (1993) case scenarios and scale in this study, Cohen, Sharp, and Pant (1994) developed eight new accounting-based vignettes (including one for underreporting billable hours and one for underperforming audit procedures) and further refined their multidimensional scale by reducing it from 15 to ten items (two items for each of the five moral constructs). With the new scenarios, participants evaluated a CPA’s questionable behavior in each scenario by completing the multidimensional scale. Each item was scored on a seven point scale, where a score of (1) indicates the action is viewed with a high
level of the underlying construct.\textsuperscript{42}

Separate univariate regressions were run for each construct (dependent variables were the sum of the scores of each pair of questions comprising each moral construct) in each vignette. The results indicate that the utilitarian dimension was significant (p < .01) in seven vignettes, and marginally significant (p < .10) in the eighth. The deontological dimension was significant (p < .01) in six vignettes, and marginally significant in a seventh.\textsuperscript{43}

While the vignettes used in the 1994 study are different then those used in the 1993 study (and in this study's questionnaire), the significance of Cohen et al.'s. (1994) findings adds support for the use of their multidimensional

\textsuperscript{42} Example - the utilitarian construct, Produces the Greatest Utility is anchored at (1) and Produces the Least Utility at (7). Determining that the questionable behavior produces the greatest utility indicates the subject is looking past the questionable aspects of the behavior and is focusing on the positive benefits (i.e. a teleological evaluation).

With the deontological construct, Violates an Unwritten Contract is anchored at (1) and Does Not Violate an Unwritten Contract is anchored at (7). Here a low score would indicate use of a deontological evaluation.

\textsuperscript{43} For the underreporting scenario, the deontological and utilitarian dimensions were both marginally significant (p < .10). For the underperforming audit scenario, both dimensions were significant (p < .01).
scale items.⁴⁴

Consistent with the scoring system used in Cohen et al. (1994), the deontological and teleological variables in this study are operationalized as the sum of the participant response scores for those scale items which comprise the deontological and teleological moral constructs (i.e. D is the sum of the response scores for the three deontological items on the multidimensional scale, and T is the sum of the response scores for the three teleological item response scores).⁵⁵ However, while Cohen et al. structured their point assignment so that a low score indicated a high level of the underlying construct; in this study, to be consistent with the stated hypotheses, it is appropriate that those who exhibit a high level of deontological or teleological evaluation be assigned a high score.⁶⁶ The deontological

⁴⁴ The Cohen et al. (1994) study focused on examining for cultural differences by using auditors from the United states, Latin America, and Japan. Since this study was confined to auditors in the United States, the significance levels reported here are for the U.S. auditors only.

⁵⁵ Although Cohen et al. (1994) refined the multidimensional scale and used two items per dimension, Cohen et al. (1993) used three items for each of the deontological and teleological dimensions.

⁶⁶ Although the Cohen et al. (1994) scoring system could be used, it creates an inverse relationship between the numerical scoring and the evaluations of behaviors viewed to be ethical. While this is not a problem, it is simpler to set up a relationship where a high numerical score indicates a high level of deontological, or teleological moral evaluation.
and teleological scale items, and their anchor scoring, are shown in Table 1.

### Table 1. Moral Evaluation Scale Items.

#### UTILITARIAN (TELEOLOGICAL)

**Does the Action:**

<table>
<thead>
<tr>
<th>(a) Produces the Greatest Utility (anchored by 7)</th>
<th>Produces the Least Utility (anchored by 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Maximizes Benefits While Minimizes Harm (anchored by 7)</td>
<td>Minimizes Benefits While Maximizes Harm (anchored by 1)</td>
</tr>
<tr>
<td>(c) Leads to the Greatest Good for the Greatest Number (anchored by 7)</td>
<td>Leads to the Least Good for the Greatest Number (anchored by 1)</td>
</tr>
</tbody>
</table>

#### DEONTOLOGICAL

**The Action:**

<table>
<thead>
<tr>
<th>(a) Violates an Unwritten Contract (anchored by 7)</th>
<th>Does Not Violate an Unwritten Contract (anchored by 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Not Obligated to Act this Way (anchored by 7)</td>
<td>Obligated to Act this Way (anchored by 1)</td>
</tr>
<tr>
<td>(c) Violates an Unspoken Promise (anchored by 7)</td>
<td>Does Not Violate an Unspoken Promise (anchored by 1)</td>
</tr>
</tbody>
</table>
4.4 Opportunity

To measure the perceived opportunity to engage in these behaviors, participants were asked to indicate how possible it is for them to successfully underreport their chargeable time and prematurely sign-off on audit procedures. The responses are based on a six point Likert scale ranging from "extremely possible" to "extremely difficult".

4.5 Rewards

To assess the influence of reward outcome on underreporting and premature sign-off activities, each participant was asked to indicate how likely is it that underreporting, or premature sign-off activities, will lead to rewards or benefits. Responses are based on a six point Likert scale ranging from "extremely likely" to "extremely unlikely".

4.6 Job Level

An accountant's knowledge and experience is usually reflected in his/her job level. To measure participant knowledge, experience, and relative power position within the firm, each participant was asked to disclose his/her job title.
4.7 Locus of Control

Locus of control research has been dominated by the use of Rotter's (1966) scale. However, relations between this measure and other "work-related variables have been rather modest" (Spector, 1988, p. 335). Spector developed a scale specifically concerned with the work domain. The results of prior studies indicate this measure has validity. Across six sample groups totalling 1241 subjects, Spector's measure was found to correlate significantly with work-related variables\(^{47}\). The 16 item measure also exhibits an acceptable level of internal consistency; alpha coefficients across the six groups range from .75 to .85 (Spector, 1988).\(^{48}\) To measure each participant's locus of control, Spector's (1988) Work Locus of Control was included in the questionnaire.

\(^{47}\) Including job satisfaction, commitment, intention, autonomy, influence, role stress, tenure, consideration, and initiating structure. Although the WLCS correlates with Rotter's measure, many of the relations between the WLCS and the work variables above are "considerably stronger than those found with the more general locus of control scales. Thus it seems that the WLCS may predict work behavior more precisely than the general scales" (Spector, 1988, p. 339).

\(^{48}\) This study's author has used Spector's measure in a prior study of public accountants and their premature sign-off activities. The measure demonstrated acceptable consistency, generating an alpha coefficient of .83 across 144 subjects.
4.8 Case Scenarios and Manipulated Variables

The results of prior studies consistently link time budget pressures to underreporting and premature sign-off activities. To test the decision model across a variety of situations likely to be encountered in practice, the level of time budget pressure present was manipulated in each of the case scenarios.

In the underreporting scenario, the number of hours worked to perform a specific audit procedure exceeded the procedure's 50 hour time budget. Time budget pressure was operationalized at four different levels by manipulating the number of hours that had been worked. The four levels were: ten, thirty, sixty and one hundred percent over the budgeted hours. The reason for exceeding budget was not

\[ \text{---------} \]

\[ 49 \text{ Kelley and Margheim (1990) generally found an inverted U-shaped relation between time budget pressure and underreporting, and between time budget pressure and audit quality reduction activities, where underreporting and audit quality reduction acts increased as budgets became increasingly tighter. Only when time budget pressure was perceived as "impossible to achieve", did underreporting and audit quality reduction activities decline.} \]

The actual hours worked as operationalized in the case scenarios ranged from 55 to 100 hours (ten percent to one hundred percent over the 50 budgeted hours). The underreporting case scenarios used in this study have been used by the author in a prior study. The results of that study indicate an inverted U-shaped relation between the level of time budget pressure and underreporting activity similar to the relation found by Kelley and Margheim.
disclosed, leaving participants to infer cause.\textsuperscript{50} Each participant responded to only one version of the scenario.

In the premature sign-off scenario, the auditor was in the process of evaluating a client’s system of internal control (an area Alderman and Deitrick, 1982, identified as susceptible to premature sign-off activity). The auditor had already worked the budgeted 50 hours and was still not finished. Four levels of time budget pressure (the same levels as in the underreporting scenarios) were operationalized by varying the amount of time needed to finish the procedures. As with the underreporting scenarios, each participant responded to just one version of the scenario.

4.9 Dependent Variables

Researchers are faced with two main problems when posing sensitive questions to subjects. The first is that the subjects refuse to respond. The second is that they may respond so as to conceal unacceptable behaviors (Buchman and Tracy, 1982).

By having the questionnaires distributed in-house by a member of that firm’s management (rather than mailing the

\textsuperscript{50} Margheim and Pany (1986) found the reason for time budget pressure (tight budget vs auditor inefficiency) did not significantly affect the likelihood of underreporting.
questionnaires directly to potential participants), it was hoped that subjects would be more likely to respond. To reduce the probability of misleading (socially desirable) responses, none of the questionnaires were coded and all participants were assured anonymity. To further desensitize the participants, they were first asked to estimate the likelihood that another accountant would underreport their chargeable time in the case scenario, before asking them to estimate the likelihood that they would underreport their own time. Each estimate of the likelihood of underreporting is based on a seven point Likert scale ranging from (1) "extremely likely" to underreport to (7) "extremely unlikely" to underreport (i.e. low response scores indicate a high likelihood of underreporting behavior).\textsuperscript{51} To determine the magnitude of expected underreporting activity, participants were asked to record the number of hours in the scenario that they would report on their time sheet. To examine the effect of organizational sanctions on underreporting behavior, participants were also asked to

\textsuperscript{51} Although the decision to underreport chargeable time (or to prematurely sign-off) is a dichotomous decision, use of a seven point scale has certain advantages. As Kaplan (1995) indicates, when dealing with potentially sensitive decisions, "participating auditors might be unwilling to reveal actual intentions with a dichotomous variable" (p. 97). Further, when the case scenarios used do not include all of the information that might normally be available in this type of decision situation, the participants might not feel able to make an either/or decision.
estimate the likelihood that they would underreport their time if their firms had a code of conduct which specifically prohibited underreporting; and if their firms had a policy of terminating employees for underreporting.

As with the underreporting issue, participants also responded to one premature sign-off scenario. Participants estimated the likelihood that another accountant would prematurely sign-off, then estimated the likelihood that they would prematurely sign-off (using the same seven point Likert scale as used in the underreporting scenario). To examine the influence of auditor judgment and procedure materiality on sign-off activities, participants were then asked to estimate the likelihood that they would prematurely sign-off if the remaining audit procedures were believed to be immaterial to the performance of the audit.\(^{52}\)

4.10 Data Analysis

Ferrell et al. (1989) model causal relations between the contingency variables and with ethical intention. Given this model's strong theoretical foundation, the use of path

\(^{52}\) More than a third of respondents felt an auditor’s professional judgment was always sufficient to overrule the need to perform a specific procedure (Alderman and Deitrick, 1982). Auditors rated the likelihood of premature sign-offs higher when the procedure was considered to be immaterial to the audit (Margheim and Pany, 1986), or when omission of the procedure carried a low risk of not detecting material errors (Raghunathan, 1991).
analysis as the primary method of data analysis is appropriate.

Path analysis is "concerned with estimating the magnitude of the linkages between variables and using these estimates to provide information about the underlying causal processes" (Asher, 1983, p.30). Each linkage (path) shows how variables are hypothesized to relate to each other. For path analysis of a recursive model, ordinary regression analysis can be used to estimate the significance of each path (including direct and indirect effects). Two separate analyses, one for the underreporting of chargeable time and one for premature audit sign-off decisions, were conducted. In each analysis, the participant's self-rated likelihood of engaging in the behavior is the dependent variable. The causal and path diagrams are shown in Figures 8 and 9.

---

53 In a recursive model, the causal influence between two variables is hypothesized to be in one direction only.

54 Four factors support the use of ordinary regression: the study is evaluating a theoretically-based and specified model rather than generating models that best fit the data, the specified model is recursive, each variable has one measure, and the small number of observations in the study.
\[
\begin{align*}
\text{D} \quad (X_2) \\
\rightarrow \\
\text{P} \quad (X_1) \\
\rightarrow \\
\text{T} \quad (X_3) \\
\rightarrow \\
\text{TI} \quad (X_4) \\
\rightarrow \\
\text{LC} \quad (X_5) \\
\rightarrow \\
\text{PU,PP} \quad (X_6) \\
\rightarrow \\
\text{RU,RP} \quad (X_7) \\
\rightarrow \\
\text{Y2,Y6} \quad (X_8) \\
\end{align*}
\]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>P \quad (X_1)</td>
<td>Cognitive moral development</td>
</tr>
<tr>
<td>D \quad (X_2)</td>
<td>Deontological moral evaluation</td>
</tr>
<tr>
<td>T \quad (X_3)</td>
<td>Teleological moral evaluation</td>
</tr>
<tr>
<td>TI \quad (X_4)</td>
<td>Job level</td>
</tr>
<tr>
<td>LC \quad (X_5)</td>
<td>Locus of control</td>
</tr>
<tr>
<td>PU \quad (X_6)</td>
<td>Possibility of successfully underreporting</td>
</tr>
<tr>
<td>PP</td>
<td>Possibility of successfully prematurely signing-off on audit procedures</td>
</tr>
<tr>
<td>RU \quad (X_7)</td>
<td>Likelihood that underreporting will be rewarded</td>
</tr>
<tr>
<td>RP</td>
<td>Likelihood that premature sign-offs will be rewarded</td>
</tr>
<tr>
<td>Y2 \quad (X_8)</td>
<td>Likelihood of self underreporting</td>
</tr>
<tr>
<td>Y6</td>
<td>Likelihood of self prematurely signing-off</td>
</tr>
</tbody>
</table>

**Figure 8. Causal Diagram of the Decision Model**
Translation of Path Diagram into Equations

\[ X_1 = p_{14}X_4 + p_{1u}R_u \]
\[ X_2 = p_{21}X_1 + p_{2v}R_v \]
\[ X_3 = p_{31}X_1 + p_{3w}R_w \]
\[ X_8 = p_{82}X_2 + p_{83}X_3 + p_{84}X_4 + p_{85}X_6 + p_{86}X_6 + p_{87}X_7 + p_{88}R_z \]

Figure 9. Path Diagram of the Decision Model
Several elements in the models are not directly observable and must be measured using survey instruments. However, the path analysis has explanatory value only if the measures of these latent variables are valid. One way to feel comfortable with these (established) measures is to compare the results of this study with those of prior studies. Additionally, Cronbach alphas were calculated to assess the reliability of the Cohen et al., and Spector measures.

A t-test analysis was used to determine the impact of organizational sanctions on underreporting behavior by examining the difference in likelihood of behavior response variables when the firm used a code of conduct, and when the firm terminated employees who underreported. A separate t test was used to assess the influence of materiality of an audit procedure on premature sign-off behavior by examining the difference in likelihood of behavior response variables when the procedure was considered material, and when it was considered immaterial.

4.11 Response and Non-response Bias

One limitation of self-reported measures is their

55 The variables and their measures include: cognitive moral development and the DIT, moral evaluations and the Cohen et al. instrument, locus of control and Spector’s measure.
potential susceptibility to socially desirable response bias (Arnold and Feldman, 1981). To help control for this, the following procedures were used.

First, the Defining Issues Test contains both M score and consistency check procedures to identify subjects who are faking responses or not paying attention. M items are pretentious sounding statements which are meaningless. A high M score indicates the subject is "attending more to perceived complexity and loftiness of the items than to the meaning of the items" (Rest, 1993, p. 13). Per instructions for the DIT, questionnaires having a raw M score of more than four were eliminated from the sample group.

The consistency check is "designed to pick up those subjects who are randomly marking circles without reading the items or without understanding the questionnaire’s instructions" (Rest, 1993, p. 14). This check compares the subject’s rating of the 12 statements with their subsequent ranking of the four most important statements. To be consistent, those statements initially rated highly (great or much) should be ranked higher than those statements initially rated lower (little or no). Any questionnaires having one story with more than eight inconsistencies, all three stories with any inconsistencies, or two stories with more than nine statements rated the same, were discarded from the sample group.
Second, in the cover letter to the instrument, all participants were assured anonymity. All survey instruments were returned directly to the researcher in pre-addressed envelopes.

Third, while it is not possible to determine how non-respondents would have replied, the results of prior studies indicate that the responses of non-respondents are similar to late respondents (Armstrong and Overton, 1977; Babbie, 1979; Oppenheim, 1966). To test for non-response bias, t-tests were performed to determine if the responses of late respondents differ significantly from those of earlier respondents. Because the questionnaires were mailed to the different offices at different dates, and since it is reasonable to assume that the length of time needed to distribute the questionnaires to participants differed from office to office, the definition of late respondent was determined by each office’s response. Any instrument received more than four weeks after receipt of the first instrument from that same office is a late respondent.
CHAPTER 5
RESEARCH RESULTS

Chapter five is organized as follows: overview of the administration of the questionnaire, results for each of the individual elements in the decision models, correlation and path analysis of the decision model for each of the ethical issues examined, results related to other issues (influence of time budget pressure on the likelihood of underreporting and premature sign-off behavior, impact of organizational sanctions on underreporting, and effect of procedure materiality on premature sign-off activity), and coverage of three specific methodological issues (manipulation of time budget pressure, influence of organizational culture, and non-response bias).

5.1 Administration of the Questionnaire

Two hundred and thirty four questionnaires were mailed to partners at six national and regional public accounting firms.\textsuperscript{56} Ninety four questionnaires were completed and returned to the researcher. Of these, ten questionnaires were dropped from the sample, leaving eighty four useable

\textsuperscript{56} A partner in each firm had been contacted prior to mailing of the questionnaires and had agreed to distribute the questionnaires to accountants in their office.
questionnaires. This is a 35 percent usable response rate. The number of questionnaires sent, returned, and usable for each of the participating CPA firms is shown in Table 2.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Number of Questionnaires Sent</th>
<th>Number of Questionnaires Received</th>
<th>Useable Questionnaires Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>84</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>30</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>84</td>
<td>36</td>
<td>31</td>
</tr>
<tr>
<td>6</td>
<td>12</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>234</td>
<td>94</td>
<td>84</td>
</tr>
</tbody>
</table>

57 Of the ten questionnaires judged to be unusable, six were discarded for exceeding the M score reliability check within the DIT, two failed the consistency check within the DIT, and two were substantially incomplete.

The elimination of eight questionnaires (8.5 percent of the 94 questionnaires received) for failing DIT reliability and consistency checks is consistent with prior experience. According to DIT instructions, between 5 and 15 percent of a sample is typically lost due to participants failing these checks.

58 The actual usable response rate is probably higher. To insure that no firm ran out of questionnaires, extra copies of the questionnaire (i.e. more than were requested by the contact partner) were sent to each firm. Therefore it is reasonable to assume the response rate is higher since it is probable that not all of the questionnaires were distributed.
5.2 Cognitive Moral Development

The mean DIT P score for participants in this study is 45.812. For comparative purposes, a listing of the results of prior studies of accounting practitioners, and of college students and graduates, is included in Table 3.

The current study’s mean P score is higher than most of those found in prior studies of accountants. However, because of differences in the composition of the various sample groups, a direct comparison may be misleading. Where most of the prior studies include partners in their sample groups, this study does not. To the extent there is an inverse relation between job level and P scores, as Ponemon (1992b) and Ponemon and Gabhart (1993) suggest, including partners in a sample would tend to reduce the sample’s mean P score. Therefore, in order to have a valid comparison of the results of the current study with those of prior studies, the partners should be removed from the prior study sample groups, and weighted mean P scores calculated.\textsuperscript{59}

When partners are removed from Ponemon’s (1992b) sample, the weighted mean P score for the remaining subjects increases to 43.1; a figure not significantly different than

\textsuperscript{59} The mean P score is weighted by the composition of the current study’s sample. Of the 84 useable instruments, 29 (35 percent) were completed by staff accountants, 28 (34 percent) by senior accountants, and 26 (31 percent) by supervisor/managers.
Table 3. DIT P Score - Mean Response Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIT P</td>
<td>84</td>
<td>45.812</td>
<td>16.245</td>
<td>10.000</td>
<td>77.000</td>
</tr>
</tbody>
</table>

Panel A: Comparison to Prior Studies of CPAs

<table>
<thead>
<tr>
<th>Study</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ponemon &amp; Gabhart (1993)</td>
<td>102</td>
<td>44.2</td>
<td>11.3</td>
</tr>
<tr>
<td>Ponemon &amp; Glazer (1990)</td>
<td>43</td>
<td>43.6</td>
<td>7.9</td>
</tr>
<tr>
<td>Shaub (1989)</td>
<td>207</td>
<td>41.3</td>
<td>15.6</td>
</tr>
<tr>
<td>Lampe &amp; Finn (1992)</td>
<td>207</td>
<td>40.9</td>
<td>15.9</td>
</tr>
<tr>
<td>Ponemon &amp; Gabhart (1993)</td>
<td>133</td>
<td>40.3</td>
<td>10.1</td>
</tr>
<tr>
<td>Ponemon (1992a)</td>
<td>88</td>
<td>38.7</td>
<td>11.9</td>
</tr>
<tr>
<td>Armstrong (1987)</td>
<td>119</td>
<td>38.5</td>
<td>15.1</td>
</tr>
<tr>
<td>Ponemon (1992b)</td>
<td>180</td>
<td>38.1</td>
<td>8.1</td>
</tr>
</tbody>
</table>

Panel B: Comparison to DIT P Scores Published by Rest (1979b, 1986)

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>College students</td>
<td>885</td>
<td>44.9</td>
<td>12.2</td>
</tr>
<tr>
<td>College graduates</td>
<td>856</td>
<td>45.8</td>
<td>na</td>
</tr>
</tbody>
</table>

* not significantly different from the current study; one-tailed t test, .05 level of significance.

b The two Ponemon and Gabhart (1993) references are for the same study. The first sample group listed is comprised of U.S. CPAs, the second sample group is Canadian Chartered Accountants (CAS).

c includes approximately 50% liberal arts college students.
the current study’s mean P score. On the other hand, while removing partners from Ponemon and Gabhart’s (1993) sample of CPAs does increase the weighted mean P score to 40.5, this figure is still significantly lower than the current study’s mean P score.60

Consistent with Ponemon (1992b) and Ponemon and Gabhart’s (1993) study of U.S. CPAs, but counter to Lampe and Finn (1993),61 the results of this study suggest an inverse relation between the mean DIT P scores and job level (Table 4). Like Ponemon (1992b) and Ponemon and Gabhart (1993), the differences in mean P scores between job levels

<table>
<thead>
<tr>
<th>Sample Group</th>
<th>N</th>
<th>Mean P Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>29</td>
<td>47.690</td>
</tr>
<tr>
<td>Seniors</td>
<td>28</td>
<td>44.929</td>
</tr>
<tr>
<td>Supervisors/Managers</td>
<td>26</td>
<td>43.269</td>
</tr>
</tbody>
</table>

60 Only the Ponemon (1992b) and Ponemon and Gabhart (1993) studies provided mean P scores and standard deviations by job level. Therefore, recalculation of mean P scores for the other studies could not be done.

61 The job level classifications differ between studies. Ponemon and Gabhart used the same job level categories as the current study (staff, senior, and supervisor/manager), while Ponemon used staff, senior, supervisor, and manager levels. Lampe and Finn dichotomized job level as either staff or manager.
are not statistically significant.

Univariate regression results indicate that the DIT P score is not significantly related to either the likelihood of self underreporting, or of self prematurely signing-off on audit procedures (Table 5). However, as suggested in Chapter 3, the results of prior studies examining the relation between moral development and underreporting/premature sign-off activities have been inconsistent. Like Ponemon (1992b) and Ponemon and Gabhart (1993), the results of the current study suggest the possibility of an inverse (although not statistically significant) relation between job level and moral development.

Table 5. Univariate Regression - Moral Development

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>F Value</th>
<th>Prob &gt; [F]</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIT P</td>
<td>Y2</td>
<td>0.507</td>
<td>0.4783</td>
</tr>
<tr>
<td>DIT P</td>
<td>Y6</td>
<td>0.239</td>
<td>0.6265</td>
</tr>
</tbody>
</table>

Y2 - likelihood of self underreporting chargeable time
Y6 - likelihood of self prematurely signing-off

5.3 Moral Evaluations

To determine whether the multidimensional scale possesses sufficient internal consistency, Cronbach alphas
were calculated for the scale responses used with each of the case scenarios. While the scale responses for the community service and bankruptcy scenarios were acceptable (alphas of .91 and .85 respectively), the sibling scenario responses did not exhibit sufficient reliability (alpha of .69). The responses used with this scenario were dropped from further use.\textsuperscript{62}

Consistent with the scoring system used in Cohen et al. (1994), each of the deontological (D) and teleological (T) dimensions are the sum of three multidimensional scale items for each of two case scenarios.\textsuperscript{63} Mean response scores are presented in Table 6.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Maximum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>84</td>
<td>28.345</td>
<td>5.098</td>
<td>42.000</td>
<td>18.000</td>
</tr>
<tr>
<td>T</td>
<td>84</td>
<td>25.583</td>
<td>5.092</td>
<td>36.000</td>
<td>12.000</td>
</tr>
</tbody>
</table>

\textsuperscript{62} It could be argued that the responses for the sibling scenario are marginally acceptable. However, univariate regressions using the scale responses for two scenarios, and for all three scenarios, indicate better results when the responses from only two scenarios are used.

\textsuperscript{63} Each dimension is comprised of six items (three scale items for each of the two case scenarios). With a seven point scale, the maximum score for each dimension is 42 (six times seven), and the minimum score is seven.
Univariate regression results indicate that neither of the deontological or teleological evaluation processes are significantly related to the likelihood of underreporting, or of prematurely signing-off (Table 7).

Table 7. Univariate Regression - Moral Evaluation

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>F Value</th>
<th>Prob &gt; [F]</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>Y2</td>
<td>0.567</td>
<td>0.4535</td>
</tr>
<tr>
<td>T</td>
<td>Y2</td>
<td>1.948</td>
<td>0.1666</td>
</tr>
<tr>
<td>D</td>
<td>Y6</td>
<td>1.264</td>
<td>0.2643</td>
</tr>
<tr>
<td>T</td>
<td>Y6</td>
<td>0.002</td>
<td>0.9846</td>
</tr>
</tbody>
</table>

Y2 - likelihood of self underreporting chargeable time
Y6 - likelihood of self prematurely signing-off

5.4 Opportunity and Rewards

The results of prior studies suggest that the opportunity to engage in unethical behavior, and the expectation that rewards will result from these behaviors, may influence behavior. To measure perceived opportunity and reward expectations, participants were asked to indicate how possible it is for them to successfully underreport (or prematurely sign-off), and to assess the likelihood that underreporting (or premature sign-offs) would lead to reward
outcomes. The responses are shown on Table 8.64

As Table 8 indicates, participants believe it is "very possible" to successfully underreport their chargeable time, although they think it is "somewhat unlikely" that successful underreporting will provide rewards. When the context changes to premature sign-off activities, the responses become more conservative. Participants believe it is "somewhat possible" to successfully prematurely sign-off, but "very unlikely" that this behavior will be rewarded.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSSU</td>
<td>84</td>
<td>1.810</td>
<td>0.885</td>
<td>1.000</td>
<td>5.000</td>
</tr>
<tr>
<td>REWARDU</td>
<td>83</td>
<td>3.752</td>
<td>1.321</td>
<td>1.000</td>
<td>6.000</td>
</tr>
<tr>
<td>POSSP</td>
<td>82</td>
<td>3.341</td>
<td>1.390</td>
<td>1.000</td>
<td>6.000</td>
</tr>
<tr>
<td>REWARDP</td>
<td>84</td>
<td>4.845</td>
<td>1.058</td>
<td>2.000</td>
<td>6.000</td>
</tr>
</tbody>
</table>

| Mean Difference | T    | Prob>|T| |
|-----------------|------|------|
| POSSU-POSSP     | -1.531| -9.870| 0.0001 |
| REWARDU-REWARDP | -1.086| -7.139| 0.0001 |

64 Responses about the possibility of successfully underreporting (POSSU) or prematurely signing-off (POSSP) are measured using a six point Likert scale and range from (1) "extremely possible" to (6) "extremely difficult". Responses assessing the likelihood that underreporting (REWARDU) or premature sign-off (REWARDP) activities will lead to rewards range from (1) "extremely likely" to (6) to "extremely unlikely".
Based on these responses, it appears that public accountants perceive underreporting differently than premature sign-off activities. Further, their perceptions are consistent with the results of previous studies and with expectations.

First, participants believe it is easier to successfully underreport than to prematurely sign-off. This is intuitive in that where underreporting is usually done in private (when an accountant fills out his/her time sheet), premature sign-offs occur in situations characterized by close supervision (given the audit team structure and lack of privacy at client locations) and workpaper review.

Second, participants believe underreporting is more likely to result in rewards than premature sign-offs. Although both activities can enhance an accountant’s time budget performance, the negative consequences associated with premature sign-offs are usually more severe than those associated with underreporting. The severity of these "negative rewards" could explain the difference in the reward expectations. The differences in mean scores (successful underreporting vs premature sign-offs, and the likelihood that rewards result from underreporting vs from premature sign-offs) are both statistically significant.

The univariate regression results presented in Table 9 indicate that the opportunity to successfully underreport is
not significantly related to the likelihood of underreporting. Similarly, the opportunity to prematurely sign-off is not significantly related to its likelihood.

Univariate regression results support the hypothesis that those who believe that underreporting will lead to rewards are more likely to underreport their time. The relation between expected reward and the likelihood of prematurely sign-offs is not supported. These results suggest that participants view underreporting and premature audit sign-off decisions differently, thereby providing a test of the decision model across issues having different ethical dimensions.

Table 9. Univariate Regression - Opportunity and Rewards

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>F Value</th>
<th>Prob &gt; [F]</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSSU</td>
<td>Y2</td>
<td>0.015</td>
<td>0.9031</td>
</tr>
<tr>
<td>REWARDU</td>
<td>Y2</td>
<td>6.329</td>
<td>0.0139</td>
</tr>
<tr>
<td>POSSP</td>
<td>Y6</td>
<td>1.434</td>
<td>0.2347</td>
</tr>
<tr>
<td>REWARDP</td>
<td>Y6</td>
<td>2.060</td>
<td>0.1551</td>
</tr>
</tbody>
</table>

Y2 - likelihood of self underreporting chargeable time
Y6 - likelihood of self prematurely signing-off
5.5 Job Level

The results of prior studies consistently indicate that job level influences underreporting and premature sign-off activities. The composition of the current study’s sample participants is fairly evenly distributed across job levels (Table 10). Almost 92 percent of the participants identify auditing as their primary area of practice.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Staff</th>
<th>Senior</th>
<th>Supervisor/Manager</th>
<th>No Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>11</td>
<td>0</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
<td>9</td>
<td>10</td>
<td>0</td>
<td>31</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>28</td>
<td>26</td>
<td>1</td>
<td>84</td>
</tr>
</tbody>
</table>

Consistent with the results of prior studies, univariate regression results indicate that job level is significantly related to the likelihood of underreporting, and to the likelihood of prematurely signing-off on audit procedures (Table 11). The hypothesized inverse relation that, as accountants become more experienced, they are less likely to engage in underreporting and premature sign-off
activities is supported. Mean response scores for each of the dependent variables for each job level are also presented in Table 11.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>F Value</th>
<th>Prob &gt; [F]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>Y2</td>
<td>4.526</td>
<td>0.0364</td>
</tr>
<tr>
<td>TITLE</td>
<td>Y6</td>
<td>6.257</td>
<td>0.0144</td>
</tr>
</tbody>
</table>

**Panel A: Mean Response Scores by Job Level**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Staff</th>
<th>Senior</th>
<th>Supervisor/Manager</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y2</td>
<td>4.759</td>
<td>5.357</td>
<td>5.770</td>
<td>5.238</td>
</tr>
<tr>
<td>Y6</td>
<td>6.069</td>
<td>6.357</td>
<td>6.731</td>
<td>6.369</td>
</tr>
</tbody>
</table>

Y2 - likelihood of self underreporting chargeable time
Y6 - likelihood of self prematurely signing-off

5.6 Locus of Control

The mean score of 38.8 achieved by participants on Spector’s Work Locus of Control scale is consistent with the results of prior studies (Table 12).\(^{65}\) Further, the

---

\(^{65}\) The locus of control scale consists of 16 items. Subjects respond to each item using a six point Likert scale. Lower scores on the measure indicate an internal locus of control.
Cronbach alpha generated (.80) suggests that the scale possesses an acceptable level of internal consistency. Both results support the use of Spector's scale as a measure of locus of control.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC</td>
<td>83</td>
<td>38.759</td>
<td>7.772</td>
<td>23.000</td>
<td>59.000</td>
</tr>
</tbody>
</table>

Panel A: Comparison to Prior Studies Published by Spector (1988)

<table>
<thead>
<tr>
<th>Study</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>151</td>
<td>41.7</td>
<td>9.6</td>
<td>0.85</td>
</tr>
<tr>
<td>2</td>
<td>41</td>
<td>36.8</td>
<td>9.9</td>
<td>0.85</td>
</tr>
<tr>
<td>3</td>
<td>101</td>
<td>39.2</td>
<td>11.9</td>
<td>0.85</td>
</tr>
<tr>
<td>4</td>
<td>292</td>
<td>38.0</td>
<td>9.0</td>
<td>0.75</td>
</tr>
<tr>
<td>5</td>
<td>160</td>
<td>39.4</td>
<td>9.1</td>
<td>0.80</td>
</tr>
<tr>
<td>6</td>
<td>496</td>
<td>36.9</td>
<td>9.6</td>
<td>0.85</td>
</tr>
<tr>
<td>Total</td>
<td>1241</td>
<td>38.1</td>
<td>9.6</td>
<td>-</td>
</tr>
</tbody>
</table>

Univariate regression results indicate that those with an internal locus of control are less likely to prematurely sign-off on audit procedures. This finding is consistent with the hypothesized expectation that those who rely on their own determination of right and wrong, and are less likely to be affected by external forces, will be less...
likely to engage in unethical behavior. Results do not support this relation for the likelihood of underreporting (Table 13).

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>F Value</th>
<th>Prob &gt; [F]</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC</td>
<td>Y2</td>
<td>0.306</td>
<td>0.5819</td>
</tr>
<tr>
<td>LC</td>
<td>Y6</td>
<td>4.250</td>
<td>0.0425</td>
</tr>
</tbody>
</table>

Y2 - likelihood of self underreporting chargeable time
Y6 - likelihood of self prematurely signing-off

5.7 Relations Among Underreporting Model Elements

Pearson correlations among the underreporting model variables are summarized in Table 14. Of the variables, only job title and expectation of rewards are significantly correlated with the likelihood of self underreporting.

Interestingly, the deontological measure is significantly, and negatively, correlated with the teleological measure. The strength and direction of the correlation suggests that, when faced with ethical issues, participants used one of the evaluation processes more than the other. The use of more than one moral evaluation process would be consistent with the models as constructed...
by both Hunt and Vitell (1986) and Ferrell et al. (1989).

<table>
<thead>
<tr>
<th></th>
<th>P</th>
<th>D</th>
<th>T</th>
<th>TI</th>
<th>LC</th>
<th>PU</th>
<th>RU</th>
<th>Y2</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>.066</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>-.056</td>
<td>-.484**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI</td>
<td>-.111</td>
<td>.019</td>
<td>.093</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC</td>
<td>.191*</td>
<td>-.056</td>
<td>.177</td>
<td>-.090</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU</td>
<td>.065</td>
<td>-.114</td>
<td>-.108</td>
<td>-.040</td>
<td>-.040</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RU</td>
<td>-.115</td>
<td>-.063</td>
<td>.035</td>
<td>.370**</td>
<td>-.024</td>
<td>.014</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Y2</td>
<td>-.065</td>
<td>.111</td>
<td>-.163</td>
<td>.238*</td>
<td>-.062</td>
<td>-.007</td>
<td>.279**</td>
<td>1.000</td>
</tr>
</tbody>
</table>

* Significant at p = .05 (one-tailed)
** Significant at p = .01 (one-tailed)

P = cognitive moral development
D = deontological moral evaluation
T = teleological moral evaluation
TI = job level
LC = locus of control
PU = possibility of successfully underreporting
RU = likelihood that underreporting will lead to rewards
Y2 = likelihood of self underreporting

5.8 Path Analysis of the Underreporting Model

A path analysis of the underreporting decision model is presented in Figure 10. Path coefficients are estimated using standardized regression coefficients; the significance level for each path is shown in parentheses. T values and levels of significance for the paths in the underreporting
model are shown in Table 15.

As the path diagram and Table 15 results indicate, none of the paths involving moral development (either as a dependent or an independent variable) are significant. For the primary dependent variable, only the expectation of rewards from underreporting (marginally) affects the likelihood of underreporting behavior; none of the other modeled paths are statistically significant. Almost 86.5 percent of the variance in the dependent variable remains unexplained by the hypothesized causal process.
Translation of Underreporting Diagram into Equations

\[ X_1 = -0.115X_4 + p_{1u}R_u \]
\[ X_2 = 0.0771X_1 + p_{2v}R_v \]
\[ X_3 = -0.0610X_1 + p_{3v}R_w \]
\[ X_8 = 0.0381X_2 - 0.1686X_3 + 0.1683X_4 - 0.0098X_5 - 0.0181X_6 + 0.2247X_7 + p_{8v}R_z \]

*Figure 10. Path Diagram - Underreporting Model*
Table 15. Tests of Significance - Underreporting Model

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>T Value</th>
<th>Sig T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>DIT P</td>
<td>-1.010</td>
<td>0.3156</td>
</tr>
<tr>
<td>DIT P</td>
<td>Deontological</td>
<td>0.701</td>
<td>0.4856</td>
</tr>
<tr>
<td>DIT P</td>
<td>Teleological</td>
<td>-0.554</td>
<td>0.5813</td>
</tr>
<tr>
<td>Deontological</td>
<td>Y2</td>
<td>0.302</td>
<td>0.7631</td>
</tr>
<tr>
<td>Teleological</td>
<td>-1.318</td>
<td>0.1914</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>1.435</td>
<td>0.1556</td>
<td></td>
</tr>
<tr>
<td>Locus of control</td>
<td>-0.090</td>
<td>0.5289</td>
<td></td>
</tr>
<tr>
<td>Possibility</td>
<td>-0.165</td>
<td>0.8696</td>
<td></td>
</tr>
<tr>
<td>Reward</td>
<td>1.936</td>
<td>0.0566</td>
<td></td>
</tr>
</tbody>
</table>

Y2 - likelihood of self underreporting chargeable time

Table 16 summarizes the direct, indirect, and total effects of the variables in the underreporting model. Because the path coefficients are standardized, the direct effects of the causal variables can be compared against each other (Bohrnstedt and Knoke, 1988). In addition to direct effects, the path model also includes a limited number of indirect effects. However, as the results in Table 16 indicate, the influence of these indirect effects is
Overall, the results of the path analysis generally do not support the hypothesized relations. Further analysis using a simpler model with fewer elements, and the possible impact of the small sample size on the path results, is discussed in Section 5.11.

---

66 Indirect causal effects are calculated by multiplying the path values of compound paths (Bohrnstedt and Knoke, 1988). When there is more than one compound path, the multiplied values for each of the compound paths are added together.
Table 16. Direct and Indirect Effects - Underreporting Model

<table>
<thead>
<tr>
<th>P Score</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>-.1115</td>
<td>ne</td>
<td>-.1115</td>
<td>.0002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Deontological</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
<th>Teleological</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>P score</td>
<td>.077</td>
<td>ne</td>
<td>.077</td>
<td>-.0610</td>
<td>ne</td>
<td>-.0610</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>ne</td>
<td>-.0086</td>
<td>-.0086</td>
<td>ne</td>
<td>.0068</td>
<td>.0068</td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td></td>
<td>-.0062</td>
<td></td>
<td>-.0084</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Likelihood of Underreporting (Y2)

<table>
<thead>
<tr>
<th>P score²</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ne</td>
<td>.0029 via D</td>
<td></td>
<td>.0132</td>
</tr>
<tr>
<td></td>
<td>.0103 via T</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deontological</td>
<td>.0381</td>
<td>ne</td>
<td>.0381</td>
</tr>
<tr>
<td>Teleological</td>
<td>-.1686</td>
<td>ne</td>
<td>-.1686</td>
</tr>
<tr>
<td>Title</td>
<td>.1683</td>
<td>-.0015</td>
<td>.1668</td>
</tr>
<tr>
<td>Locus of control</td>
<td>-.0098</td>
<td>ne</td>
<td>-.0098</td>
</tr>
<tr>
<td>Possibility</td>
<td>-.0181</td>
<td>ne</td>
<td>-.0181</td>
</tr>
<tr>
<td>Rewards</td>
<td>.2247</td>
<td>ne</td>
<td>.2247</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td></td>
<td></td>
<td>.0660</td>
</tr>
</tbody>
</table>

ne = relation not examined in model.

² indirect effects for P score on Y2 shown separately for deontological and for teleological variables.
5.9 Relations Among Premature Sign-off Model Elements

Pearson correlations among the premature sign-off model variables are summarized in Table 17.\textsuperscript{67} Of the model elements, only job title and locus of control are significantly correlated with the likelihood of self prematurely signing-off.

5.10 Path Analysis of the Premature Sign-off Model

Path analysis of the premature sign-off model is presented in Figure 11. T values and levels of significance for the paths are shown in Table 18.

For the primary dependent variable, only job title is (marginally) related to the likelihood of premature audit sign-offs; none of the other modeled paths are statistically significant.\textsuperscript{68} Just over 85 percent of the variance in the dependent variable remains unexplained by the hypothesized causal process. Similar to the underreporting model, the

\textsuperscript{67} Of the model variables, DIT P score, deontological process, teleological process, title, and locus of control are the same as the underreporting model (correlations between these variables are discussed in Section 5.7). The correlations for these variables in Table 17 are slightly different than those in Table 14 (underreporting model) due to the loss of one subject in the premature sign-off analysis. The possibility, reward, and dependent variables are unique to this analysis.

\textsuperscript{68} The premature sign-off model paths involving moral development (either as a dependent or an independent variable) are discussed in Section 5.8
results of the premature sign-off path analysis do not generally support the hypothesized relations.

<table>
<thead>
<tr>
<th></th>
<th>P</th>
<th>D</th>
<th>T</th>
<th>TI</th>
<th>LC</th>
<th>PP</th>
<th>RP</th>
<th>Y6</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>.071</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>-.066</td>
<td>-.489**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI</td>
<td>-.106</td>
<td>.006</td>
<td>.120</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC</td>
<td>.202*</td>
<td>-.058</td>
<td>.180</td>
<td>-.091</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PP</td>
<td>-.085</td>
<td>-.132</td>
<td>-.237*</td>
<td>.059</td>
<td>-.250*</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RP</td>
<td>-.175</td>
<td>-.009</td>
<td>-.149</td>
<td>.078</td>
<td>-.271**</td>
<td>.324**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Y6</td>
<td>-.054</td>
<td>.132</td>
<td>-.002</td>
<td>.261**</td>
<td>-.220*</td>
<td>.132</td>
<td>.160</td>
<td>1.000</td>
</tr>
</tbody>
</table>

* Significant at p = .05 (one-tailed)
** Significant at p = .01 (one-tailed)

P = cognitive moral development
D = deontological moral evaluation
T = teleological moral evaluation
TI = job level
LC = locus of control
PP = possibility of successfully prematurely signing-off
RP = likelihood that premature sign-offs will lead to rewards
Y6 = likelihood of self prematurely signing-off
Translation of Underreporting Diagram into Equations

\[ X_1 = -0.1115X_4 + p_{2u}R_u \]
\[ X_2 = 0.0771X_1 + p_{2v}R_v \]
\[ X_3 = -0.0610X_1 + p_{3v}R_v \]
\[ X_5 = 0.0381X_2 - 0.1686X_3 + 0.1683X_4 - 0.0098X_5 - 0.0181X_6 + 0.2247X_7 + p_{5z}R_z \]

Figure 10. Path Diagram - Underreporting Model
Table 18. Tests of Significance - Premature Sign-off Model

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>t Value</th>
<th>Sig T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>DIT P</td>
<td>-1.010</td>
<td>0.3156</td>
</tr>
<tr>
<td>DIT P</td>
<td>Deontological</td>
<td>0.701</td>
<td>0.4856</td>
</tr>
<tr>
<td>DIT P</td>
<td>Teleological</td>
<td>-0.554</td>
<td>0.5813</td>
</tr>
</tbody>
</table>

Deontological        | Y6                 | 1.587   | 0.1168 |
Teleological          |                    | 1.047   | 0.2987 |
Title                |                    | 1.960   | 0.0538 |
Locus of control     |                    | -1.417  | 0.1606 |
Possibility          |                    | 0.905   | 0.3684 |
Reward               |                    | 0.743   | 0.4600 |

Y6 - likelihood of self prematurely signing-off

Table 19 summarizes the direct, indirect, and total effects of the variables in the premature sign-off model. These results indicate that job title has the greatest influence on the likelihood of premature sign-offs. The lack of influence of reward expectation is counter to the underreporting analysis. These results again suggest that accountants view underreporting and premature sign-offs as having different ethical dimensions. As with underreporting, the influence of the indirect effects on the
likelihood of premature sign-offs is minimal.

<table>
<thead>
<tr>
<th></th>
<th>Likelihood of Premature Sign-offs (Y6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct</td>
</tr>
<tr>
<td>P score&lt;sup&gt;a&lt;/sup&gt;</td>
<td>ne</td>
</tr>
<tr>
<td>Deontological</td>
<td>.2054</td>
</tr>
<tr>
<td>Teleological</td>
<td>.1406</td>
</tr>
<tr>
<td>Title</td>
<td>.2153</td>
</tr>
<tr>
<td>Locus of control</td>
<td>-.1624</td>
</tr>
<tr>
<td>Possibility</td>
<td>.1108</td>
</tr>
<tr>
<td>Rewards</td>
<td>.0865</td>
</tr>
</tbody>
</table>

Adjusted R²: .0781

ne = relation not examined in model

<sup>a</sup> indirect effects for P score on Y6 shown separately for deontological and for teleological variables.

5.11 Modification of the Decision Models

The path analyses of the underreporting and premature sign-off models indicate that the decision models include elements which do not appear to be significant in the ethical decision process. To simplify the models and

<sup>69</sup> Direct and indirect effects for P score, deontological, and teleological dependent variables are the as for the Underreporting model (see Table 16).
possibly increase their explanatory power, paths with nonsignificant coefficients were removed from the model.

None of the paths connecting cognitive moral development (either as a dependent or an independent variable) to another variable are significant. When the moral development element is removed from the model, each of the path models are reduced to a single multiple regression. From this point, stepwise regression is used to eliminate nonsignificant variables.\textsuperscript{70}

Consistent with earlier findings in the current study, the results of the stepwise regressions indicate that accountants perceive underreporting and premature sign-off activities as having different ethical dimensions (Table 20). There is no overlap in the significant variables included in the two decision models.\textsuperscript{71}

\textsuperscript{70} Because of the exploratory nature of the model modification, SPSS criteria defaults were relaxed. The probability of F-to-enter was increased from .05 to .10 and the probability of F-to-remove from .10 to .15.

\textsuperscript{71} Title is significantly related to the likelihood of premature sign-offs (p=.0262), but only very marginally related to the likelihood of underreporting (p=.1310).
<table>
<thead>
<tr>
<th>Panel A: Underreporting Regression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variable</td>
</tr>
<tr>
<td>Reward</td>
</tr>
<tr>
<td>Teleological</td>
</tr>
<tr>
<td>Title</td>
</tr>
<tr>
<td>Model¹</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B: Premature Sign-off Regression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variable</td>
</tr>
<tr>
<td>Title</td>
</tr>
<tr>
<td>Locus of control</td>
</tr>
<tr>
<td>Model¹</td>
</tr>
</tbody>
</table>

¹ F values and their level of significance are shown for models.

For the likelihood of underreporting, only the expectation of rewards and the teleological evaluation process are marginally significant. The standardized regression coefficients indicate that reward expectation has the greatest influence. Consistent with Lightner (1981), those who hold the greatest expectation that underreporting will lead to rewards are the most likely to underreport. Those who use a consequences-based process are also more
likely to underreport. The presence of these two elements seems consistent - both capture reward orientation - the teleological element is a general measure of reward evaluation and the reward expectation element is specific to underreporting. The findings also very marginally suggest that as accountants become more experienced, they are less likely to engage in underreporting activities. Together, these three variables explain ten percent of the variance in the dependent variable.

The most significant influence on the likelihood of premature audit sign-offs is job title. As with the underreporting model, it appears that as accountants become more experienced, they are less likely to prematurely sign-off. The influence of job level on premature sign-off activities is consistent with the findings of prior studies.

Individual locus of control is marginally related to the likelihood of prematurely signing-off. Parameter estimates suggest that, as hypothesized, those with an internal locus of control are less likely to prematurely sign-off on audit procedures. The regression model explains about eight percent of the variance in the dependent variable.
5.12 Time Budget Pressure

The results of prior studies consistently indicate that time budget pressures influence underreporting and premature sign-off activities. To test the decision model across a variety of situations likely to be encountered in practice, the level of time budget pressure present was manipulated in each of the case scenarios.\textsuperscript{72}

Univariate regression results indicate that the level of time budget pressure present in the case scenario affects the likelihood of underreporting behavior (Table 21). Parameter estimates indicate, as expected, a positive relation between the level of time pressure present and the likelihood of underreporting.

Interestingly, time budget pressure does not appear to influence the likelihood of premature sign-off activity. In fact, the parameter estimate indicates an inverse relation between time pressure and premature sign-offs. These differences, in terms of significance and direction of the relation, further support the position that accountants view underreporting and premature sign-offs as substantially different ethical issues.

\textsuperscript{72} The possibility that the manipulation might confound the results is discussed in Section 5.13.1.
Table 21. Univariate Regression - Time Budget Pressure

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>F Value</th>
<th>Prob &gt; [F]</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVERU</td>
<td>Y2</td>
<td>6.068</td>
<td>0.0159</td>
</tr>
<tr>
<td>OVERP</td>
<td>Y6</td>
<td>1.367</td>
<td>0.2457</td>
</tr>
</tbody>
</table>

5.13 Organizational Sanctions and Underreporting

Counter to the results of Margheim and Pany (1986) and Pany et al. (1989), the inclusion of organizational sanction items in the survey instrument did provide some evidence that sanctions might reduce the likelihood of underreporting activity. Absent sanctions, participants rate themselves as "somewhat unlikely" to underreport. When sanctions are increased to include a code of conduct which specifically prohibits underreporting, the likelihood of underreporting moves closer to "very unlikely". The threat of termination for underreporting further reduces the likelihood of underreporting to between "very and extremely unlikely". The differences in mean responses were each significant (Table 22).\(^{73}\)

\(^{73}\) Responses to likelihood of underreporting questions are based on a seven point Likert scale ranging from (1) "extremely likely" to (6) "extremely unlikely". Lower response scores indicate a greater likelihood of underreporting activity.
Table 22. Likelihood of Behavior and Organizational Sanction

| Dependent Variables | Mean Score | Mean Difference | T       | Prob>|T| |
|---------------------|------------|-----------------|---------|--------|
| Y1                  | 3.929      |                 |         |        |
| Y2                  | 5.238      |                 |         |        |
| Y3                  | 5.639      |                 |         |        |
| Y4                  | 6.229      |                 |         |        |
| Y1-Y2               | -1.309     | -8.018          | 0.0001  |        |
| Y2-Y3               | -0.401     | -3.047          | 0.0031  |        |
| Y3-Y4               | -0.590     | -5.132          | 0.0001  |        |
| Y2-Y5               | -0.991     | -5.533          | 0.0001  |        |

Y1 - likelihood of others underreporting
Y2 - likelihood of self underreporting - no sanctions
Y3 - likelihood of self underreporting - code of conduct
Y4 - likelihood of self underreporting - termination

5.14 Procedure Materiality and Premature Audit Sign-offs

Also consistent with the findings of prior studies, participants in the current study indicate they are more likely to prematurely sign-off on audit procedures if they

The results of organizational sanction significance should be critically considered. Because the current study used a repeated measures design to assess the influence of organizational sanctions, it is possible that the close proximity of the questions created a sensitivity which lead to the finding of significance.

74 Y1 measures participants' belief about the likelihood of other accountants underreporting chargeable time. Consistent with the findings of prior studies, participants indicate other accountants are significantly more likely than themselves to underreport.
believe the procedures to be immaterial to the performance of the audit. Although participants rate themselves as between "very and extremely unlikely" to prematurely sign-off on audit procedures, this changes to between "somewhat and very unlikely" when the procedures are believed to be immaterial to the performance of the audit. The difference in mean responses is significant (Table 23).\textsuperscript{75}

\textsuperscript{75} Responses to likelihood of premature sign-off questions is based on a seven point Likert scale ranging from (1) "extremely likely" to (6) "extremely unlikely". Lower response scores indicate a greater likelihood of premature sign-off activity.

The concerns expressed about the repeated measures design used to examine the influence of organizational sanctions and underreporting are also relevant to the finding of audit procedure materiality and premature sign-offs.
Table 23. Likelihood of Behavior and Procedure Materiality

| Dependent Variables | Mean Score | Mean Difference | T    | Prob>|T| |
|---------------------|------------|-----------------|------|------|
| Y5                  | 5.036      |                 |      |      |
| Y6                  | 6.369      |                 |      |      |
| Y7                  | 5.675      |                 |      |      |
| Y5-Y6               | -1.333     | -9.594          | 0.0001 |      |
| Y6-Y7               | 0.694      | 5.175           | 0.0001 |      |

Y5 - likelihood of others prematurely signing-off
Y6 - likelihood of self prematurely signing-off
Y7 - likelihood of self prematurely signing-off - procedure immaterial

5.15 Methodological Issues

Three methodological issues are each addressed in this section: the manipulation of the level of time budget pressure present in the case scenarios, the assumption of organizational culture as a constant influence, and the possibility of non-response bias.

5.15.1 Manipulation of Time Budget Pressure

The results of prior studies consistently link time

---

76 Y5 measures participants' belief about the likelihood of other accountants engaging in premature sign-off activities. Consistent with the findings of prior studies, participants believe other accountants are significantly more likely than themselves to prematurely sign-off on audit procedures.
budget pressures to underreporting and premature sign-off activities. To test the decision model across a variety of situations likely to be encountered in the practice of public accounting, the level of time budget pressure was manipulated in the case scenarios.

In both underreporting and premature sign-off scenarios, the time budget for completing a work assignment was set at 50 hours. The level of time pressure was manipulated either by providing the number of hours already worked in excess of the 50 hour budget (underreporting), or by providing the amount of additional time needed over the 50 hours to finish the evaluation of a client’s system of internal control (premature sign-off). Four levels of time pressure (ten, thirty, sixty or one hundred percent over the 50 budgeted hours) were used, providing four different underreporting, and four different premature sign-off, scenarios. 77 Each participant responded to only one version of the underreporting, and the premature sign-off, scenario.

Ideally, the different levels of manipulated time pressure should be randomly distributed. However, because

77 For example, in the ten percent over budget scenarios, the participant was told that he/she had already worked 55 hours (underreporting), or that he/she had already worked the budgeted 50 hours and would need an additional five hours to complete the audit procedure.
there were six separate sample groups (i.e. CPA firms), and because of concerns about the potential for firm effects, equal numbers of each version of the case scenarios were sent to each firm. The scenarios were randomly distributed within each firm. Chi-square analysis of time budget pressure indicates no significant differences between firms and between job levels, thus supporting a random assignment of the levels of time budget pressure. Table 24 lists the levels of manipulated time pressure in the returned questionnaires.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Level of Time Budget Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>Underreporting</td>
<td>24</td>
</tr>
<tr>
<td>Premature Sign-off</td>
<td>20</td>
</tr>
</tbody>
</table>

Does the manipulation accurately approximate the time pressures likely to be encountered in practice? One third of the participants in the current study responded by underreporting the number of chargeable hours worked in the scenarios, and wrote off slightly more than five percent of all chargeable hours. While the percentage of participants who underreported is less than the 51% who underreported on
a specific audit in Kelley and Margheim's (1987) study, it is consistent with Shapeero and Killough's (1996) study which used the same underreporting case scenarios. Further, the percentage of chargeable time written off is comparable to levels reported by Lightner (1981). The consistency of these results with Lightner (1981), and of Shapeero and Killough's (1996) results (which used the same scenarios) with Kelly and Margheim's (1987) results suggests that use of these case scenarios is appropriate.

5.15.2 Firm Differences

The influence of a firm's organizational culture on the participants' ethical intentions is assumed to be (an unmeasured) constant. While it is not possible to directly test this assumption (no measure of organizational culture was included in the questionnaire), this assumption can be indirectly examined by comparing the dependent variable responses between the firms. Mean response scores by firm are shown in Table 25.

\[ \]

\[71\] Thirty eight percent of the 112 public accountants in Shapeero and Killough's study underreported the number of chargeable hours in the scenarios, and wrote off almost seven percent of the total chargeable time.

Further, in their study, Shapeero and Killough found an inverted-U shape relation between time budget pressure and underreporting activity consistent with Kelley and Margheim's (1987) study which examined actual audits rather than hypothetical case scenarios.
There are no significant differences in the mean responses between the firms for six of eight dependent variables. Importantly, mean responses for the two primary dependent variables, likelihood of self underreporting and likelihood of self prematurely signing-off, are not significantly different. Only for two secondary variables, likelihood of another accountant prematurely signing-off and likelihood of self prematurely signing-off when the procedure is believed to be immaterial to the performance of the audit, are the mean responses significantly different.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y2</td>
<td>5.238</td>
<td>5.000</td>
<td>5.050</td>
<td>4.333</td>
<td>5.667</td>
<td>5.419</td>
<td>5.667</td>
</tr>
<tr>
<td>Y3</td>
<td>5.639</td>
<td>5.600</td>
<td>5.300</td>
<td>5.444</td>
<td>6.222</td>
<td>5.710</td>
<td>5.778</td>
</tr>
<tr>
<td>Y5</td>
<td>5.036</td>
<td>3.833</td>
<td>4.300</td>
<td>4.667</td>
<td>5.444</td>
<td>5.484</td>
<td>5.889</td>
</tr>
</tbody>
</table>

Y1 - likelihood of others underreporting  
Y2 - likelihood of self underreporting - no sanctions  
Y3 - likelihood of self underreporting - code of conduct  
Y4 - likelihood of self underreporting - termination  
Y5 - likelihood of others prematurely signing-off  
Y6 - likelihood of self prematurely signing-off  
Y7 - likelihood of self prematurely signing-off - procedure immaterial
However, even these differences are not due to firm effects, but to differences in job levels. Because there are differences in the job level composition of each firm’s respondents\(^{79}\) (and since job level is expected to influence responses), the sample was partitioned by job level and Tukey’s Studentized range tests run. When the dependent variable responses are compared by job level across firms, no significant differences between the firms are found for any of the dependent variables. These results support the assumption that the influence of organizational culture is constant and did not significantly affect participant responses.

5.15.3 Non-response Bias

Because of the methodology used in this study, it is not possible to determine how non-respondents would have responded to the questionnaire.\(^{80}\) However, the results of prior studies indicate that responses of late respondents are similar to those of non-respondents. To determine

\(^{79}\) Job level composition varies by firm. For example, in firm 6, only managers responded to the questionnaire.

\(^{80}\) Because contact partners at each office distributed questionnaires, the researcher does not know which employees received questionnaires. In addition, because participants were promised anonymity and the questionnaires were not coded, the researcher does not know which employees did, and which did not, return questionnaires.
whether non-response bias might be a problem, t-tests were used to see if the responses of the late respondents differed significantly from those of on-time respondents.

Of the 84 usable questionnaires received, 11 (13 percent) were classified as late responders (received more than four weeks after the first questionnaire was received from that office). Table 26 indicates the number of usable on-time and late respondents by firm.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Received</th>
<th>Discarded</th>
<th>Usable</th>
<th>On-Time</th>
<th>Late</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
<td>2</td>
<td>20</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>1</td>
<td>9</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>1</td>
<td>9</td>
<td>9</td>
<td>0</td>
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<tr>
<td>5</td>
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<td>5</td>
<td>31</td>
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</tr>
<tr>
<td>6</td>
<td>10</td>
<td>1</td>
<td>9</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>10</td>
<td>84</td>
<td>73</td>
<td>11</td>
</tr>
</tbody>
</table>

The dependent variable mean scores for both late and on-time respondents are listed in Table 27. There are significant differences for two of the dependent variables - perceived likelihood of others underreporting and likelihood of self underreporting. In both cases, the late respondents judged others, and themselves, less likely to underreport.
chargeable time. Because Y1 is used to desensitize participants, this difference is a minor issue. However, Y2 is the dependent variable in the underreporting path model. The difference between respondent groups is a matter of concern and, potentially, a limitation on the validity of this study's results.

Table 27. Dependent Variable Responses: Late vs On-Time

| Dependent Variable | Mean Scores of Respondents | T   | Prob > |T| |
|--------------------|---------------------------|-----|--------|---|
|                    | Total                     | On-Time | Late   |    |
| Y1                 | 3.929                     | 3.822 | 4.909 | -2.259 | 0.027 |
| Y2                 | 5.238                     | 5.068 | 6.364 | -2.244 | 0.028 |
| Y3                 | 5.639                     | 5.556 | 6.182 | -1.186 | 0.239 |
| Y4                 | 6.229                     | 6.194 | 6.455 | -0.649 | 0.518 |
| Y5                 | 5.036                     | 4.986 | 5.364 | -0.816 | 0.417 |
| Y6                 | 6.369                     | 6.370 | 6.364 | 0.019  | 0.985 |
| Y7                 | 5.675                     | 5.708 | 5.455 | 0.515  | 0.608 |

Y1 - likelihood of others underreporting
Y2 - likelihood of self underreporting - no sanctions
Y3 - likelihood of self underreporting - code of conduct
Y4 - likelihood of self underreporting - termination
Y5 - likelihood of others prematurely signing-off
Y6 - likelihood of self prematurely signing-off
Y7 - likelihood of self prematurely signing-off - procedure immaterial
CHAPTER 6
DISCUSSION AND CONCLUSIONS

6.1 Introduction

The underreporting of chargeable time and premature audit sign-offs can adversely affect the operations of public accounting firms. Prior studies of underreporting and premature sign-off activities have generally lacked a strong theoretical foundation. The model used in the current study provides a framework in which those elements thought to be significant in the ethical decision making process can be examined to better understand why these activities occur. Although limited to the issues of underreporting and premature sign-offs, the current study is a possible first step in developing an approach that could be extended to examine other ethical issues found in the public accounting profession.

6.2 Results - Underreporting and Premature Sign-off Path Models

The results of the path analyses of the underreporting and premature sign-off models do not generally support the expected relations between model elements. The influence of moral development (either as a dependent or an independent variable) is not significant in either model. The lack of
significance is not inconsistent with the results of prior studies. While Ponemon (1992a) found those with lower levels of moral development underreported more time than those with higher levels of moral development, his sample consisted solely of newly-hired staff-level auditors. On the other hand, Ponemon (1992b) and Ponemon and Gabhart (1993) found a negative association between accountants' job level and their level of moral reasoning, suggesting that those who are less likely to underreport or prematurely sign-off have lower levels of moral reasoning. It is possible that within each job category, level of moral reasoning is significantly related to underreporting or premature sign-off decisions, but that this effect is lost when results are computed across more than one job level.

Consistent with Ponemon (1992b) and Ponemon and Gabhart (1993), the results of the current study indicate that the mean level of moral development decreases as accountants advance in their firms (although like these prior studies, the differences in mean P scores between job levels are not statistically significant). This decline may seem counter to the theory of cognitive moral development. However, Ponemon (1992b) and Ponemon and Gabhart (1993) suggest that

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81 The results of previous studies consistently indicate that as accountants advance in their firms, they are less likely to underreport or prematurely sign-off.
public accounting firms tend to employ a "selection-socialization" process where management's promotion decisions are biased in favor of those who have levels of ethical reasoning that are closer to management's ethical capacity.\textsuperscript{82} Given that the job level structure in public accounting firms is pyramid-shaped, this process would tend to cause those with higher levels of moral development to eventually leave their firms. Therefore, while the level of moral development of specific individuals may increase, the departure of those with higher ethical reasoning from public accounting firms would cause the firm's average level of moral development to decline. Ponemon (1992b) concludes that "the ethical culture of the accounting firm stymies an individual's development to higher levels of ethical reasoning" (p. 239).

Of the remaining elements in the underreporting path model, only the expectation of rewards from underreporting (marginally) affects the likelihood of underreporting behavior; none of the other modeled paths are statistically significant. Counter to the underreporting analysis, the expectation of reward is not significantly related to the likelihood of premature sign-offs. The significance of

\textsuperscript{82} Ponemon (1992b) supports this position by noting that managers and partners tend to have more homogeneous levels of ethical reasoning (in addition to lower levels of moral development).
reward in the underreporting decision is consistent with a teleological approach (found to be more important in underreporting decisions). On the other hand, rewards do not appear to be significant in ethical situations where the rights and wrongs are more absolute (reflected in the non-significance of reward expectation and, possibly, the greater importance of a deontological evaluation process in the premature sign-off analysis).

Of the premature sign-off model variables, only job level is significantly related to the likelihood of prematurely signing-off. Consistent with the results of prior studies, participants at higher job levels are less likely to prematurely sign-off on audit procedures. Although not significant in the path model, there is also an inverse relation between job level and likelihood of underreporting (the direction of the relation is consistent with the results of prior studies where more experienced accountants are less likely to underreport). Overall, these results might be interpreted to suggest a maturation process where, as employees gain experience, they become more confident in their abilities and feel less pressure to engage in unethical activities simply to enhance perceptions of their performance.\textsuperscript{83} The results might also support a

\textsuperscript{83} Example - underreporting or prematurely signing-off in order to meet the time budget for an assignment.
"survival of the fittest" paradigm where those whose performance is weakest, and who might be most likely to underreport or prematurely sign-off, are the first to leave their firms. This would be consistent with the up-or-out model employed by most public accounting firms.

A lack of variance in response may explain the non-significance of the variables measuring the possibility of successfully underreporting or prematurely signing-off. Almost ninety-eight percent of participants indicated it was at least "somewhat possible" to successfully underreport their chargeable time. It would appear that the opportunity to underreport is a given, and not a consideration in determining whether an individual is likely to underreport. Participants also find it possible to prematurely sign-off. While almost one quarter find it "somewhat difficult" to successfully prematurely sign-off, none of the study’s participants believe it "extremely" or even "very difficult" to engage in this activity. Overall, these findings suggest that public accountants believe there are substantial opportunities to engage in unethical behaviors.

In general, the results of the path analyses do not support the expected relations between model elements. However, there are reasons other than non-significant relations which may explain the overall lack of results.

First, it is possible that the measures used in this
study’s questionnaire failed to adequately capture the underlying model elements. However, given the similarity of the current study’s results with those of prior studies which have used the two established instruments (DIT P score and Spector’s Work Locus of Control), the acceptable internal reliability of the Cohen et al. scale, and the comparability of this study’s dependent variable responses with Shapeero and Killough’s (1996) earlier work using the same underreporting case scenarios, it would appear that the operationalization of model elements was appropriate.

It is more likely that the lack of significance is the result of a small sample size and a decision model with too many variables. Since the initial path analyses indicate certain elements are not significant in the decision process, it is appropriate to modify the model by removing those paths with non-significant coefficients from the model (Pedhazur, 1982). In addition to simplifying the model, removing variables may increase the model’s explanatory power. Modification of the decision models and a discussion of results is presented in Section 6.3.

6.3 Results - Modified Decision Models

Without significant paths leading into, or out of, the moral development element, each of the path models is reduced to a single regression equation. Stepwise
regression was then used to simplify the models by eliminating nonsignificant variables.

For likelihood of underreporting, reward expectation, teleological evaluation, and job level remain in the stepwise regression; for premature sign-offs, only job level and locus of control are present. These results continue to suggest that accountants view underreporting and premature sign-offs as issues having different ethical dimensions.

The significance of reward expectation and the teleological evaluation process suggests that accountants tend to use a consequences-based approach in which to consider their decision to underreport. If so, the very marginal significance of job level might suggest that as accountants become more experienced, their abilities to evaluate the consequences related to underreporting develop, and results in them being less likely to underreport. The learning process initially included in the Ferrell et al. (1989) model may be summarized in the job level variable.

Job level is the most significant influence on the likelihood of premature audit sign-offs. Consistent with the results of prior studies, it appears that as accountants become more experienced, they are less likely to prematurely sign-off. However, unlike the underreporting model, reward expectation and the teleological process do not affect the likelihood of premature sign-offs. Given the significant
ethical content of the premature sign-off decision, it is possible that a deontological evaluation is more important. However, regression results do not support the significance of the deontological process by itself. Instead, what may be important is the shift in the use of evaluation approaches - away from a teleological approach and towards a deontological viewpoint - as the ethical content of the decision changes. This is a question for future research efforts.

Those participants with an internal locus of control are less likely to prematurely sign-off on audit procedures. As described earlier, individuals with internal loci are more likely (than externals) to rely on their own determination of right and wrong, and to take responsibility for their actions. The significance of locus of control may suggest that, when faced with clearly defined ethical issues (like premature sign-offs), those with internal loci are less susceptible to outside influences and are more likely to behave ethically. The non-significance of locus of control with the likelihood of underreporting suggests that this effect may be present only when individuals face decisions with strong ethical content.

\[8^a\] And clearly, this result cannot be explained by increased ethical reasoning (since mean level of moral development decreases as job level increases).
6.4 Results - Other Issues

Although not included in the decision models, three other issues - the influence of time budget pressure on underreporting and premature sign-off activities, the impact of organizational sanctions on underreporting, and the effect of procedure materiality on premature sign-offs - were examined in this study. The results related to these issues are discussed in this section.

6.4.1 Time Budget Pressure

Univariate regression results indicate that the level of time budget pressure present significantly affects the likelihood of underreporting. As the level of time budget pressure increases, both the likelihood of underreporting and the percentage of time actually written off generally increase.\footnote{The likelihood of underreporting response measures participant intent. The recording of the chargeable hours in the case scenario by the participants measures their behavior. Intent and behavior are consistent - almost 95 percent of those participants who rated themselves at least somewhat likely to underreport subsequently recorded less than the chargeable hours worked in the case scenario.} These results are consistent with expectations and with the results of prior studies.

Counter to expectations, time budget pressure does not appear to influence the likelihood of premature sign-off activity. This is also counter to Alderman and Deitrick's
finding that time budget pressures significantly affect audit performance, including the likelihood of premature sign-offs, and Kelley and Margheim's (1990) finding that audit quality reduction acts increase as time budgets become harder to achieve.86

On the other hand, the non-significance of time pressure on premature sign-offs are consistent with the results of a 1991 study by Raghunathan. In this study, Raghunathan found premature sign-offs most likely to occur during procedures related to analytical review, checking the internal auditors' work, and the review of internal control. As he noted, these procedures are generally performed during the earlier stages of an audit when, presumably, time budget pressure is less. Rather than time constraints, Raghunathan found that a low risk of not detecting material errors was the most frequently cited reason for premature sign-offs. This would be consistent with the results related to procedure materiality in Section 6.4.3.

6.4.2 Organizational Sanctions and Underreporting

Counter to the results of Margheim and Pany (1986) and

86 Audit quality reduction acts include premature sign-offs. Kelley and Margheim (1990) found an inverted U-shape relation where the number of audit quality reduction acts increased as budgets became harder to meet. Only when the budget was perceived to be "impossible to achieve", did the number of quality reduction acts decline.
Pany et al. (1989), the results of the current study suggest that explicit sanctions may help reduce unethical behavior. While both the existence of a company code of conduct and the threat of termination significantly reduced the likelihood of underreporting, public accounting firms must determine whether the potential reduction in underreporting is worth the cost of developing and monitoring a code of conduct and the potential employee negative goodwill from any threats of termination.

6.4.3 Procedure Materiality and Premature Audit Sign-offs

Participants indicate they are significantly more likely to prematurely sign-off on an audit procedure if they believe the procedure is immaterial to the performance of the audit. This is consistent with the results of several prior studies in which subjects indicate they are more likely to omit those procedures they consider immaterial or unlikely to detect a material error. It also supports Kermis and Mahapatra’s (1985) position that when auditors do reduce their assessment of the time needed to complete audit procedures, the reductions are made so as to reduce the

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67 As mentioned in Section 5.13, the use of a repeated measures design may have created a sensitivity which lead to the finding of significance for organizational sanctions. This may also explain why the results were counter to Margheim and Pany (1986) and Pany et al (1989), both of which used a between-subjects design.
adverse effects.

Although the finding of significance for procedure materiality is as expected and not surprising, the significant difference in participant responses does suggest that they were attentive to the questions in the instrument.

6.5 Conclusions

The likelihood of underreporting appears to be affected by the length of time an accountant has spent in public practice, their evaluation of the consequences (rewards) associated with underreporting, and the level of time budget pressure present.

Consistent with the results of prior studies, staff accountants are more likely to underreport than managers. While this is not surprising, it does raise questions as to why less experienced accountants are more likely to underreport their chargeable time. Public accounting firms typically follow an up-or-out paradigm where employees who perform well are promoted, and those who do not perform well (or who do not enjoy the work) leave. Lightner (1981) found underreporters expressed greater concerns about their ability to meet time budgets (a measure of their performance) and were more likely to consider leaving their firms. If underreporters do leave their firms in greater numbers (particularly within the first several years of
practice), those who remain, and are promoted to supervisory positions, would tend to be non-underreporters.

If this is true, is it possible that an (over)emphasis on time budget performance is driving otherwise qualified people out of public accounting? While time budgets do have information value,\(^{68}\) it may be appropriate to de-emphasize the importance of always meeting budget; particularly when dealing with staff-level employees. New staff training sessions might be structured to emphasize the importance of performance criteria like work quality, rather than blind adherence to meeting time budgets. Partners could send a message to employees by setting realistic time budgets (perhaps with a separate over-budget allowance for staff-level employees). And when a time budget is exceeded, the billing partner could take a positive approach by asking the staff member whether the additional time may be billable (after all, the budget may not accurately reflect a job's increased complexity, or client-created problems). Not only does this include the employee who actually performed the work in the billing process, but it may also increase firm revenues.

The overwhelming majority of participants in the

\(^{68}\) For example, knowing the number of hours budgeted for a job allows management to schedule the proper number of employees for the length of time they are needed.
current study indicate it is not difficult to underreport. Given that underreporting usually occurs in private (when accountants fill out their time reports), attempts by public accounting firms to reduce the opportunities for underreporting will probably not be effective. Instead, if public accounting firms can reduce the rewards associated with underreporting, firms may be able to reduce the incidence of underreporting activities.

The use of organizational sanctions may also be of some value in reducing unethical behavior. Results indicate that both the existence of a company code of conduct, and the threat of termination, significantly reduced the likelihood of employee underreporting. This should not be surprising given the significance of a consequence-based process to the underreporting decision. If organizational sanctions are used, the results of prior studies indicate that greater effectiveness is achieved when organizational policies are explicitly written, have the full support of top management, and are coupled with appropriate sanctions.

Unlike the underreporting model, the likelihood of premature sign-offs does not appear to be affected by the expectation of rewards or the level of time budget pressure.

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89 As discussed previously, by de-emphasizing the importance of always meeting budget and by rewarding other performance criteria like work quality.
present. Instead, premature sign-off activities appear to be influenced by the length of time an accountant has spent in public accounting and by their locus of control.

Ninety-four percent of the participants rated themselves at least "somewhat unlikely" to prematurely sign-off in the case scenario. This occurred in spite of the perception that there are opportunities to engage in this activity. It may be that the negative consequences associated with premature sign-offs are so serious that any positive aspects (like time budget performance or audit efficiency) are overshadowed.\textsuperscript{90} If so, this might explain the non-significance of reward expectation and the teleological evaluation process.

The significant inverse relation between job level and the likelihood of premature sign-offs may have a couple of interpretations. First, as accountants advance in their firms, their personal interests tend to be more closely tied to their firms' interest. Experienced accountants may be less willing to engage in activities which might damage their firms. There may also be an investment aspect where as individuals "build" their careers, they are less willing

\textsuperscript{90} As mentioned previously, these negative consequences include violation of professional standards (which could cause an accountant to lose their CPA license) and an increased risk of audit failure (potentially leading to civil damages and in extreme cases, criminal charges).
to place their personal financial situation and professional reputation at risk.

The "survival of the fittest" paradigm may also explain the influence of job level. It may be that those whose performance is weakest, and most susceptible to engaging in premature sign-offs, leave public accounting (voluntarily or involuntarily) before they advance within their firms.\(^91\) While having underreporters leave public accounting might be of concern, many would not consider the loss of accountants who are willing violate professional standards to be a problem.

Overall, the results suggest that accountants consider premature sign-offs to be unethical behavior, and generally do not engage in this activity (even though they believe that the opportunity to prematurely sign-off exists). The exception appears to be when the procedure is considered to be immaterial to the performance of the audit. What constitutes immateriality is, unfortunately, a judgment call. Comfort should not be taken that the groups most likely to prematurely sign-off (staff and senior accountants) are also the least experienced.

\(^{91}\) Lightner (1981) found underreporters were more likely to consider leaving their firms. Given that premature sign-off activities violate professional standards, it would seem reasonable to assume that those who prematurely sign-off would also be more likely to consider leaving their firms.
6.6 Limitations

There are several limitations that should be considered when evaluating the results of this study. Because the data were gathered through the use of a mail-in questionnaire (rather than an on-site experiment), direct observation of participant behavior was not possible. Like other studies which utilize written instruments, participant intent (here, self-rated intent to underreport chargeable time or to prematurely sign-off on an audit procedure) was used as a surrogate for the actual behavior. The reader should consider the possibility that intent may differ from (subsequent) behavior when evaluating the results of this study.

As with most studies that use survey instruments, there is the potential for response bias. To help control for this, two checks within the DIT scale were used to eliminate subjects whose responses were less-than-forthcoming or careless. The elimination of eight questionnaires (8.5 percent of 94 questionnaires received) for failing these checks is consistent with prior experience. A promise of anonymity coupled with having the participants return their questionnaires directly to the researcher were also used to minimize response bias. However, the method used to distribute questionnaires could create response bias. Since contact partners at the offices controlled the distribution
of the instruments, any bias in the distribution process could limit the generalizability of this study's results.

There may also be problems with non-response bias. T-test analysis indicates significant differences between on-time and late respondents for two of seven dependent variable (perceived likelihood of others underreporting, and likelihood of self underreporting). In both cases, late respondents judged themselves less likely to underreport, or to believe that others would underreport, than did on-time respondents. While the difference in response for the perceived likelihood of others underreporting might be dismissed as of minor consequence, differences in the likelihood of self underreporting affect the validity of the decision model's dependent variable responses. Further, given the late respondents' more conservative underreporting responses, the potential for non-response bias should be considered when evaluating the results of the underreporting decision process.92

The CPA firms who participated in this study may impose a limitation. Only the employees of six large regional and national public accounting firms participated in this study. To the extent that the size of the employer firm influences

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92 There were no significant differences between on-time and late respondents for the dependent variables related to the premature sign-off decision process.
individual ethical decisions (as the results of some prior studies suggest), the generalizability of this study’s results may be limited to large public accounting firms. On the other hand, to the extent that organizational characteristics influence underreporting and premature sign-off behaviors, the use of similar firms (with presumably the same organizational cultures) may enhance the internal validity of this study’s results.

Only non-equity employees were used in this study. To the extent that underreporting and premature sign-off behaviors of non-equity employees differ from that of partners, the generalizability of this study’s results to partners may not be appropriate. However, since it may be (strongly) argued that the behavior of non-equity employees is of greater interest, any need to generalize this study’s results to partners may be trivial.

Several potential limitations of this study result from modifications to the Ferrell et al. model:

1. Although research suggests that intent is linked to behavior, this linkage is not examined in this study. Instead, intent to underreport or to prematurely sign-off on an audit procedure, rather than the actual behavior, is the dependent variable examined.

2. Participant awareness of ethical issues is assumed. Further, implicit is the assumption that underreporting and
premature sign-off activities are viewed as unethical behaviors. It is possible that some accountants do not perceive underreporting as unethical given that they are performing work on their personal (unreported) time in order to finish the job within budget (Dirsmith and Covaleski, 1985; McNair, 1991; Ponemon, 1992a). The perception of premature sign-offs as unethical behavior seems reasonable given that this activity clearly violates the Professional Standards.

3. Social and economic environments are not included in the Ferrell et al. model, and their influence is not examined.

4. Ferrell and Gresham (1985) note that the consensus as to what constitutes proper behavior may change as the ethical issue changes.\(^93\) Jones (1991) notes that moral intensity (moral characteristics of an issue) varies substantially from issue to issue. Yet the model used in this study does not explicitly include the issue’s moral characteristics as either an independent variable or as a moderating variable. To the extent that ethical decision making is issue-contingent, the model may lose some of its ability to explain decision making behavior involving other ethical issues.

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\(^93\) For instance, most people agree that stealing by employees is wrong. But fewer people would condone embezzling company funds than would condone pilfering office supplies (Ferrell and Gresham, 1985).
5. DeZoot and Lord (1994) found auditors susceptible to obedience pressure. Given this study’s limited sample size and methodology, it was not practical to manipulate the level of appropriateness in superior instruction. So, to the extent that a specific request from a superior to violate firm policies or professional standards would cause a subordinate to underreport, or prematurely sign-off, the model is not complete.

6. The Ferrell et al. model includes a feedback loop which allows a post-action evaluation of consequences to influence the organizational culture, opportunity, and individual moderator variables. This study used a one-time survey instrument that did not provide an opportunity to examine this learning process. To this extent, the model should be considered to be modified. Future research might include longitudinal studies to examine the model with the learning process intact.

Measurements of latent variables are subject to limitations. For example, Trevino (1986) suggests managers use lower levels of cognitive moral development in actual work situations than they do in the hypothetical testing situations often used to measure moral development. To the extent that this is true, the cognitive moral development variable measure used in the analysis may be overstated.

Ferrell et al. (1989) model the moral evaluation
element to be a function of a deontological/teleological process. Yet the results of prior studies indicate that multidimensional ethics scales (incorporating other moral constructs like egoism, justice, and relativism in addition to deontology and utilitarianism) provide greater predictability of overall ethical evaluation than do separate unidimensional ethics scales. While the Cohen et al. multidimensional scale was included in the questionnaire used in this study, only two unidimensional scales (consistent with the Ferrell et al. model) were used in this study’s analysis.

Finally, to the extent that the operationalizations do not adequately measure the underlying components in the model, the results of this study will not explain the decision making process within the context of premature audit sign-offs and the underreporting of chargeable time.

6.7 Future Research Efforts

In general, the results of the path analyses indicate that the model of ethical decision making used in this study does not appear to adequately examine the likelihood of underreporting and premature sign-off activities. However, initially, a measure of individual efficacy was included in the model. However, problems with participants correctly interpreting the question lead to the item being dropped.
as discussed, the overall lack of results may be due to this study’s relatively small sample size and a decision model with too many variables. Future efforts should attempt to increase the sample size while reducing the number of decision model elements (for example, perceived opportunity to underreport appears to be a given, not a variable). A larger sample size, and a simpler model may have greater explanatory power.

Other dependent variables should be considered with the model used in the current study. Only about five percent of participants indicated that they were likely to prematurely sign-off in the case scenario. Despite attempts to reduce it, the researcher must consider the possibility of response bias, particularly for the issue of premature sign-offs. Prior studies of dysfunctional auditor behaviors have used participant assessments of another’s behavior as a surrogate for the participant’s own behavior. These studies suggest participant assessment of a hypothetical other’s behavior more accurately describes the participant’s behavior than does the participant’s self-assessment of their own behavior. In the current study, participants were asked to assess the likelihood of another’s behavior as a desensitizing device. Given the availability of these

\footnote{For example, studies by Margheim and Pany (1986) and Pany et al. (1989).}
responses, further efforts could easily included them in the current study's decision model.

The shift between deontological and teleological evaluation processes depending on the ethical decision involved is interesting and could be developed. Further use of the multidimensional scale with new case scenarios describing other ethical issues might provide answers as to which moral evaluation processes are relevant in the practice of public accounting.\(^{96}\)

Finally, depending on the results of the preceding efforts, it may be useful to incorporate the Ferrell et al. decision model in studies of other ethical issues found in the practice of public accounting.

\(^{96}\) Examples: preparing a false tax return, violating client confidentiality, or issuing an audit opinion when not independent.
REFERENCES


APPENDIX A

ETHICAL DECISION MAKING MODELS
<table>
<thead>
<tr>
<th>Moral Development</th>
<th>Stages of Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral value resides in external quasi-physical happenings, in bad acts, or in quasi-physical needs rather than in persons and standards.</td>
<td>1. Obedience and punishment orientation. Egocentric deference to superior power or prestige, or a trouble-avoiding set. Objective responsibility.</td>
</tr>
<tr>
<td>Moral value resides in performing good or right roles, in maintaining the conventional order and the expectancies of others.</td>
<td>2. Naively egoistic orientation. Right action is that instrumentally satisfying the self's needs and occasionally others'. Awareness of relativism of value to each actor's needs and perspective. Native egalitarianism and orientation to exchange and reciprocity.</td>
</tr>
<tr>
<td>Moral value resides in conformity by the self to shared or shareable standards, rights or duties.</td>
<td>3. Good boy orientation. Orientation to approval and to pleasing and helping others. Conformity to stereotypical images or majority or natural role behavior, and judgment by intentions.</td>
</tr>
<tr>
<td></td>
<td>4. Authority and social-order maintaining orientation. Orientation to &quot;doing duty&quot; and to showing respect for authority and maintaining the given social order for its own sake. Regard for earned expectations of others.</td>
</tr>
<tr>
<td></td>
<td>5. Contractual legalistic orientation. Recognition of an arbitrary element or starting point in rules or expectations for the sake of agreement. Duty defined in terms of contract, general avoidance of will or rights of and majority will and welfare.</td>
</tr>
<tr>
<td></td>
<td>6. Conscience or principle orientation. Orientation not only to actually ordained social rules but to principles of choice involving appeal to logical universality and consistency. Orientation to conscience as a directing agent and to mutual respect and trust.</td>
</tr>
</tbody>
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**Figure 1.** Classification of moral development into stages.
Figure 2: Contingency Model of Ethical Decision Making.

FIGURE 3. GENERAL THEORY OF MARKETING ETHICS.

FIGURE 4. SYNTHESIS INTEGRATED MODEL OF ETHICAL DECISION MAKING.
FIGURE 5. MODIFIED INTEGRATED MODEL OF ETHICAL DECISION MAKING.
FIGURE 6. CAUSAL MODEL DIAGRAM OF THE UNDERREPORTING DECISION.
Figure 7. Causal Model Diagram of the Premature Audit Sign-Off Decision.
APPENDIX B

QUESTIONNAIRE AND SCORING SYSTEM
May 15, 1994

Dear Participant:

We are currently engaged in a research project and your input will be most appreciated. Your participation should help us to identify certain factors affecting the performance of audit fieldwork.

In the following materials, you are asked to respond to a series of questions and case scenarios. We request that you provide your reactions to these questions; there are no "right" or "wrong" answers. All information provided will be kept confidential and results will be reported only as totals and averages of responses.

When you have completed the questionnaire, please return it directly to the Department of Accounting. We have enclosed a stamped, self-addressed envelope for this purpose.

Thank you for your participation.

Sincerely,

Larry N. Killough
1. Which of the following best describes your current job position: Staff, Senior, Supervisor, Manager, Partner?

2. Which do you consider to be your main area of practice: Audit, Tax, Advisory Services, Other (specify). Please select just one area.

For each of the following statements, please indicate how much you agree or disagree with the statement using the following scale:

<table>
<thead>
<tr>
<th></th>
<th>1 Disagree Very Much</th>
<th>2 Disagree Moderately</th>
<th>3 Disagree Slightly</th>
<th>4 Agree Slightly</th>
<th>5 Agree Moderately</th>
<th>6 Agree Very Much</th>
</tr>
</thead>
</table>

1. A job is what you make of it.

2. On most jobs, people can pretty much accomplish whatever they set out to accomplish.

3. If you know what you want out of a job, you can find a job that gives it to you.

4. If employees are unhappy with a decision made by their boss, they should do something about it.

5. Getting the job you want is mostly a matter of luck.

6. Making money is primarily a matter of good fortune.
For each of the following statements, please indicate how much you agree or disagree with the statement using the following scale:

1. Disagree Very Much
2. Disagree Moderately
3. Disagree Slightly
4. Agree Slightly
5. Agree Moderately
6. Agree Very Much

7. Most people are capable of doing their jobs well if they make the effort.
   1  2  3  4  5  6

8. In order to get a really good job you need to have family members or friends in high places.
   1  2  3  4  5  6

9. Promotions are usually a matter of good fortune.
   1  2  3  4  5  6

10. When it comes to landing a really good job, who you know is more important than what you know.
    1  2  3  4  5  6

11. Promotions are given to employees who perform well on the job.
    1  2  3  4  5  6

12. To make a lot of money you have to know the right people.
    1  2  3  4  5  6

13. It takes a lot of luck to be an outstanding employee on most jobs.
    1  2  3  4  5  6

14. People who perform their jobs well generally get rewarded for it.
    1  2  3  4  5  6

15. Most employees have more influence on their supervisors than they think they do.
    1  2  3  4  5  6

16. The main difference between people who make a lot of money and people who make a little money is luck.
    1  2  3  4  5  6
Opinions about Social Problems

The purpose of this part of the questionnaire is to help us understand how people think about social problems. Different people have different opinions about questions of right and wrong. There are no "right" answers to such problems in the way that math problems have right answers. We would like you to tell us what you think about several problem stories.

You will be asked to read a story. Then you will be asked to mark your answers to a series of questions. Please make sure that your mark fills the little circle, that the mark is dark, and that any erasures that you make are completely clean. To illustrate how we would like you to do this, consider the following story:

FRANK AND THE LITTLE CAR

Frank Jones has been thinking about buying a car. He is married, has two small children, and earns an average income. The car he buys will be his family's only car. It will be used mostly to get to work and drive around town, but sometimes for vacation trips also. In trying to decide what car to buy, Frank Jones realized that there were a lot of questions to consider. For instance, should he buy a larger used car or a smaller new car for about the same amount of money? Other questions occur to him.

We note that this is not really a social problem, but it will illustrate our instructions.

First, for each story you will be asked to indicate your recommendation for what a person should do. If you tend to favor one action or another (even if you are not completely sure), indicate which one. If you do not favor either action, mark the circle by "can't decide."

Second, read each of the items numbered 1 to 12. Think of the issue that the item is raising. If that issue is important in making a decision, one way or the other, than mark the circle by "great." If that issue is not important or doesn't make sense to you, mark "no." If the issue is relevant but not critical, mark "much," "some," or "little" -- depending on how much importance that issue has in your opinion. You may mark several items as "great" (or any other level of importance) -- there is no fixed number of items that must be marked at any one level.

Third, after you have made your marks along the left hand side of each of the 12 items, then at the bottom you will be asked to choose the item that is the most important consideration cut of all the items printed there. Pick from among the items provided even if you think that none of the items are of "great" importance. Of the items that are presented there, pick one as the most important (relative to the others), then the second most important, third, and fourth most important.
SAMPLE ITEMS AND SAMPLE ANSWERS:

FRANK AND THE CAR: ○ Buy new car ○ Can't decide ○ Buy used car

Great Much Some Little No

1. Whether the car dealer was in the same block as where Frank lives.
2. Would a used car be more economical in the long run than a new car.
3. Whether the color was green, Frank's favorite color.
4. Whether the cubic inch displacement was at least 200.
5. Would a large, roomy car be better than a compact car.
6. Whether the front connibilies were differential.

From the list of questions above, select the four most important:

Most important item 5
Second most important 2
Third most important 3
Fourth most important 1

Note that in our sample responses, the first item was considered irrelevant; the second item was considered as a critical issue in making a decision; the third item was considered of only moderate importance; the fourth item was not clear to the person responding whether 200 was good or not, so it was marked "no"; the fifth item was also of critical importance; and the sixth item didn't make any sense, so it was marked "no".

Note that the most important item comes from one of the items marked on the far left hand side. In deciding between item #2 and #5, a person should reread these items, then put one of them as the most important, and the other item as second, etc.

On the next page is the first story for your consideration. Please read the story and then mark your responses. After filling in your responses, go to the next story. Please fill in the circles completely, make dark marks, and completely erase all corrections.
HEINZ AND THE DRUG

In Europe a woman was near death from a special kind of cancer. There was one drug that doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost to make. He paid $200 for the radium and charged $2,000 for a small dose of the drug. The sick woman’s husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $1,000, which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I’m going to make money from it." So Heinz got desperate and began to think about breaking into the man’s store to steal the drug for his wife. Should Heinz steal the drug? (Mark one)

<table>
<thead>
<tr>
<th>Great</th>
<th>Much</th>
<th>Some</th>
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1. Whether a community’s laws are going to be upheld.

2. Isn’t it only natural for a loving husband to care so much for his wife that he’d steal?

3. Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help.

4. Whether Heinz is a professional wrestler or has considerable influence with professional wrestlers

5. Whether Heinz is stealing for himself or doing this solely to help someone else.

6. Whether the druggist’s rights to his invention have to be respected.

7. Whether the essence of living is more encompassing than the termination of dying, socially and individually.

8. What values are going to be the basis for governing how people act toward each other.

9. Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.

10. Whether the law in this case is getting in the way of the most basic claim of any member of society.
11. Whether the druggist deserves to be robbed for being so greedy and cruel.
12. Would stealing in such a case bring about more total good for the whole society or not.

From the list of questions above, select the four most important:

Most important item
Second most important
Third most important
Fourth most important

ESCAPED PRISONER

A man had been sentenced to prison for 10 years. After one year, however, he escaped from prison, moved to a new area of the country, and took on the name of Thompson. For eight years he worked hard, and gradually he saved enough money to buy his own business. He was fair to his customers, gave his employees top wages, and gave most of his own profits to charity. Then one day, Mrs. Jones, an old neighbor, recognized him as the man who had escaped from prison eight years before, and whom the police had been looking for. Should Mrs. Jones report Mr. Thompson to the police and have him sent back to prison?

(Mark one)

0 Should report him 0 Can't decide 0 Should not report him

Great Much Some Little No

1. Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person?

2. Every time someone escapes punishment for a crime, doesn't that just encourage more crime?

3. Wouldn't we be better off without prisons and the oppression of our legal system?

4. Has Mr. Thompson really paid his debt to society?

5. Would society be failing what Mr. Thompson should fairly expect?

6. What benefits would prisons be apart from society, especially for a charitable man?

7. How could anyone be so cruel and heartless as to send Mr. Thompson to prison?
8. Would it be fair to all the prisoners who had to serve out their full sentences if Mr Thompson was let off?

9. Was Mrs. Jones a good friend of Mr. Thompson?

10. Wouldn’t it be a citizen’s duty to report an escaped criminal, regardless of the circumstances?

11. How would the will of the people and the public good best be served?

12. Would going to prison do any good for Mr. Thompson or protect anybody?

From the list of questions above, select the four most important:

Most important item

Second most important

Third most important

Fourth most important

---

**NEWSPAPER**

Fred, a senior in high school, wanted to publish a mimeographed newspaper for students so that he could express many of his opinions. He wanted to speak out against the use of the military in international disputes and to speak out against some of the school’s rules, like the rule forbidding boys to wear long hair.

When Fred started his newspaper, he asked his principal for permission. The principal said it would be all right if before every publication Fred would turn in all his articles for the principal’s approval. Fred agreed and turned in several articles for approval. The principal approved all of them and Fred published two issues of the paper in the next two weeks.

But the principal had not expected that Fred’s newspaper would receive so much attention. Students were so excited by the paper that they began to organize protests against the hair regulation and other school rules. Angry parents objected to Fred’s opinions. They phoned the principal telling him that the newspaper was unpatriotic and should not be published. As a result of the rising excitement, the principal ordered Fred to stop publishing. He gave as a reason that Fred’s activities were disruptive to the operation of the school. Should the principal stop the newspaper? (Mark one)

0 Should stop it 0 Can’t decide 0 Should not stop it
Great  Much  Some  Little  No

0  0  0  0  0  1. Is the principal more responsible to students or to parents?
0  0  0  0  0  2. Did the principal give his word that the newspaper could be published for a long time or did he just promise to approve the newspaper one issue at a time?
0  0  0  0  0  3. Would the students start protesting even more if the principal stopped the newspaper?
0  0  0  0  0  4. When the welfare of the school is threatened, does the principal have the right to give orders to students?
0  0  0  0  0  5. Does the principal have the freedom of speech to say "no" in this case?
0  0  0  0  0  6. If the principal stopped the newspaper, would he be preventing full discussion of important problems
0  0  0  0  0  7. Whether the principal's order would make Fred lose faith in the principal.
0  0  0  0  0  8. Whether Fred was really loyal to his school and patriotic to his country.
0  0  0  0  0  9. What effect would stopping the paper have on the student's education in critical thinking and judgment?
0  0  0  0  0  10. Whether Fred was in any way violating the rights of others in publishing his own opinions.
0  0  0  0  0  11. Whether the principal should be influenced by some angry parents when it is the principal that knows best what is going on in the school.
0  0  0  0  0  12. Whether Fred was using the newspaper to stir up hatred and discontent.

From the list of questions above, select the four most important:

Most important item
Second most important
Third most important
Fourth most important

155
Listed below are 15 sets of words or phrases with opposite meanings (Just or Unjust, Fair or Unfair, etc.). For each set of words or phrases, please evaluate CPA Z's action in the situation described below.

Please indicate your assessment of CPA Z's action by marking one of the seven boxes between each set of words or phrases. The closer the box is to the word or phrase, the stronger your belief that the word or phrase describes CPA Z's action.

CPA Z's sister, Susan, is the treasurer and a 26% stockholder of ABC Corporation. The president of ABC Corporation asked Z if he would perform the annual audit of ABC Corporation.

**Action:** CPA Z accepts the audit engagement.

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<th>Just</th>
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CPA Z, in addition to practicing public accounting, is heavily involved in community activities. He is especially well-known for his passionate promotion of higher voter participation in elections. High-Voter Company, a newly formed company, has developed a revolutionary promotional process that the company's officers claim will greatly increase voter turnout. The president of High-Voter asked Z if he would perform the initial audit of High-Voter.

**Action:** CPA Z accepts the audit engagement.

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<thead>
<tr>
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Please indicate your assessment of CPA Z’s action by marking one of the seven boxes between each set of words or phrases. The closer the box is to the word or phrase, the stronger your belief that the word or phrase describes CPA Z’s action.

CPA Z serves as the auditor for Widget & Co. Widget’s market share has declined drastically, and Z knows that Widget will soon be bankrupt. Another of Z’s clients is Solid Company. While auditing Solid’s accounts receivable, Z finds that Widget & Co. owes Solid $200,000.

Action: CPA Z warns his client, Solid Company, about Widget’s impending bankruptcy.

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1. In your present situation, how possible is it to successfully underreport your chargeable time?

   Extremely Possible    Extremely Difficult
   Very Possible         Very Difficult
   Somewhat Possible     Somewhat Difficult

2. How likely is it that successful underreporting will lead to rewards or benefits (better performance evaluations, increased job security, etc.)?

   Extremely Likely     Extremely Unlikely
   Very Likely          Very Unlikely
   Somewhat Likely      Somewhat Unlikely

3. What percentage of time budgets would you meet if you did NOT underreport your chargeable time (0 - 100%)?

   %

4. In your present situation, how possible is it to successfully prematurely sign-off on an audit procedure not performed?

   Extremely Possible    Extremely Difficult
   Very Possible         Very Difficult
   Somewhat Possible     Somewhat Difficult

5. How likely is it that premature sign-offs on audit procedures will lead to rewards or benefits (better performance evaluations, increased job security, etc.)?

   Extremely Likely     Extremely Unlikely
   Very Likely          Very Unlikely
   Somewhat Likely      Somewhat Unlikely

6. What percentage of time budgets would you meet if you did NOT prematurely sign-off on audit procedures (0 - 100%)?

   %
NGK Systems, Inc. manufactures sensor subassemblies used in anti-lock braking systems. The company is a medium-sized client of your firm and the time budget for completion of the audit is fairly tight.

You have been assigned to perform the audit procedures related to the review and evaluation of NGK's internal control structure. The time budget for this portion of the audit is fifty hours. After completing the audit procedures, you find that you have spent fifty-five hours (ten percent over the budgeted hours).

For each of the following statements, please indicate your response using the following scale:

1. Extremely Likely
2. Very Likely
3. Somewhat Likely
4. Neither Likely or Unlikely
5. Somewhat Unlikely
6. Very Unlikely
7. Extremely Unlikely

1. How likely is another accountant to underreport their chargeable hours in the situation given above?

2. How likely are you to underreport your chargeable hours in the situation given above?

3. How many hours would you report on your time sheet as chargeable?

__________________________

4. If your Firm's code of conduct specifically prohibited underreporting activity, how likely would you be to underreport your chargeable hours in the situation given above?

5. If your Firm had a stated policy of terminating anyone caught underreporting, how likely would you be to underreport your chargeable hours in the situation given above?
NGK Systems, Inc. manufactures sensor subassemblies used in anti-lock braking systems. The company is a medium-sized client of your firm and the time budget for completion of the audit is fairly tight.

You have been assigned to perform the audit procedures related to the review and evaluation of NGK’s internal control structure. The time budget for this portion of the audit is fifty hours. After completing the audit procedures, you find that you have spent sixty-five hours (thirty percent over the budgeted hours).

For each of the following statements, please indicate your response using the following scale:

1. Extremely Likely  5. Somewhat Unlikely
2. Very Likely       6. Very Unlikely
3. Somewhat Likely   7. Extremely Unlikely
4. Neither Likely or Unlikely

1. How likely is another accountant to underreport their chargeable hours in the situation given above?

   1  2  3  4  5  6  7

2. How likely are you to underreport your chargeable hours in the situation given above?

   1  2  3  4  5  6  7

3. How many hours would you report on your time sheet as chargeable?

   ____________________________ hours

4. If your Firm’s code of conduct specifically prohibited underreporting activity, how likely would you be to underreport your chargeable hours in the situation given above?

   1  2  3  4  5  6  7

5. If your Firm had a stated policy of terminating anyone caught underreporting, how likely would you be to underreport your chargeable hours in the situation given above?

   1  2  3  4  5  6  7
NGK Systems, Inc. manufactures sensor subassemblies used in anti-lock braking systems. The company is a medium-sized client of your firm and the time budget for completion of the audit is fairly tight.

You have been assigned to perform the audit procedures related to the review and evaluation of NGK's internal control structure. The time budget for this portion of the audit is fifty hours. After completing the audit procedures, you find that you have spent eighty hours (sixty percent over the budgeted hours).

For each of the following statements, please indicate your response using the following scale:

1 Extremely Likely       5 Somewhat Unlikely
2 Very Likely            6 Very Unlikely
3 Somewhat Likely        7 Extremely Unlikely
4 Neither Likely or Unlikely

1. How likely is another accountant to underreport their chargeable hours in the situation given above?
   1  2  3  4  5  6  7

2. How likely are you to underreport your chargeable hours in the situation given above?
   1  2  3  4  5  6  7

3. How many hours would you report on your timesheet as chargeable?
   ____________________________ hours

4. If your Firm's code of conduct specifically prohibited underreporting activity, how likely would you be to underreport your chargeable hours in the situation given above?
   1  2  3  4  5  6  7

5. If your Firm had a stated policy of terminating anyone caught underreporting, how likely would you be to underreport your chargeable hours in the situation given above?
   1  2  3  4  5  6  7
NGK Systems, Inc. manufactures sensor subassemblies used in anti-lock braking systems. The company is a medium-sized client of your firm and the time budget for completion of the audit is fairly tight.

You have been assigned to perform the audit procedures related to the review and evaluation of NGK's internal control structure. The time budget for this portion of the audit is fifty hours. After completing the audit procedures, you find that you have spent one hundred hours (twice the budgeted hours).

For each of the following statements, please indicate your response using the following scale:

1 Extremely Likely  5 Somewhat Unlikely
2 Very Likely      6 Very Unlikely
3 Somewhat Likely  7 Extremely Unlikely
4 Neither Likely or Unlikely

1. How likely is another accountant to underreport their chargeable hours in the situation given above?

   1  2  3  4  5  6  7

2. How likely are you to underreport your chargeable hours in the situation given above?

   1  2  3  4  5  6  7

3. How many hours would you report on your time sheet as chargeable?

   ____________________ hours

4. If your Firm's code of conduct specifically prohibited underreporting activity, how likely would you be to underreport your chargeable hours in the situation given above?

   1  2  3  4  5  6  7

5. If your Firm had a stated policy of terminating anyone caught underreporting, how likely would you be to underreport your chargeable hours in the situation given above?

   1  2  3  4  5  6  7
Gerdig Inc. manufactures gearing subassemblies used in transmissions and differential braking systems. The company is a medium-sized client of your firm and the time budget for completion of the audit is fairly tight.

You have been assigned to perform the audit procedures related to the review and evaluation of Gerdig’s internal control structure. The time budget for this portion of the audit is fifty hours. After working fifty hours, you are not yet finished. You estimate that it will take another five hours (ten percent over budget) to complete the testing. The remaining procedures require minimal workpaper documentation.

For each of the following statements, please indicate your response using the following scale:

1  Extremely Likely  5  Somewhat Unlikely
2  Very Likely       6  Very Unlikely
3  Somewhat Likely   7  Extremely Unlikely
4  Neither Likely or Unlikely

1. How likely is another accountant to sign-off on the audit procedures without performing the procedures in the situation given above?

   1  2  3  4  5  6  7

2. How likely are you to sign-off on the audit procedures without performing the procedures in the situation given above?

   1  2  3  4  5  6  7

3. Assume that the remaining procedures are really immaterial to the performance of the review and evaluation of internal control. How likely are you to sign-off on the audit procedures without performing the procedures in the situation given above?

   1  2  3  4  5  6  7
Gerdig Inc. manufactures gearing subassemblies used in transmissions and differential braking systems. The company is a medium-sized client of your firm and the time budget for completion of the audit is fairly tight.

You have been assigned to perform the audit procedures related to the review and evaluation of Gerdig's internal control structure. The time budget for this portion of the audit is fifty hours. After working fifty hours, you are not yet finished. You estimate that it will take another fifteen hours (thirty percent over budget) to complete the testing. The remaining procedures require minimal workpaper documentation.

For each of the following statements, please indicate your response using the following scale:

1. Extremely Likely          5. Somewhat Unlikely
2. Very Likely              6. Very Unlikely
3. Somewhat Likely          7. Extremely Unlikely
4. Neither Likely or Unlikely

1. How likely is another accountant to sign-off on the audit procedures without performing the procedures in the situation given above?

2. How likely are you to sign-off on the audit procedures without performing the procedures in the situation given above?

3. Assume that the remaining procedures are really immaterial to the performance of the review and evaluation of internal control. How likely are you to sign-off on the audit procedures without performing the procedures in the situation given above?
Gerdig Inc. manufactures gearing subassemblies used in transmissions and differential braking systems. The company is a medium-sized client of your firm and the time budget for completion of the audit is fairly tight.

You have been assigned to perform the audit procedures related to the review and evaluation of Gerdig’s internal control structure. The time budget for this portion of the audit is fifty hours. After working fifty hours, you are not yet finished. You estimate that it will take another thirty hours (sixty percent over budget) to complete the testing. The remaining procedures require minimal workpaper documentation.

For each of the following statements, please indicate your response using the following scale:

1. Extremely Likely
2. Very Likely
3. Somewhat Likely
4. Neither Likely or Unlikely
5. Somewhat Unlikely
6. Very Unlikely
7. Extremely Unlikely

1. How likely is another accountant to sign-off on the audit procedures without performing the procedures in the situation given above?

2. How likely are you to sign-off on the audit procedures without performing the procedures in the situation given above?

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Gerdig Inc. manufactures gearing subassemblies used in transmissions and differential braking systems. The company is a medium-sized client of your firm and the time budget for completion of the audit is fairly tight.

You have been assigned to perform the audit procedures related to the review and evaluation of Gerdig's internal control structure. The time budget for this portion of the audit is fifty hours. After working fifty hours, you are not yet finished. You estimate that it will take another fifty hours (twice the budgeted hours) to complete the testing. The remaining procedures require minimal workpaper documentation.

For each of the following statements, please indicate your response using the following scale:

1  Extremely Likely  5  Somewhat Unlikely
2  Very Likely       6  Very Unlikely
3  Somewhat Likely   7  Extremely Unlikely
4  Neither Likely or Unlikely

1. How likely is another accountant to sign-off on the audit procedures without performing the procedures in the situation given above?

1  2  3  4  5  6  7

2. How likely are you to sign-off on the audit procedures without performing the procedures in the situation given above?

1  2  3  4  5  6  7

3. Assume that the remaining procedures are really immaterial to the performance of the review and evaluation of internal control. How likely are you to sign-off on the audit procedures without performing the procedures in the situation given above?

1  2  3  4  5  6  7
SCORING OF QUESTIONNAIRE MEASURES

1. Which of the following best describes your current job position: Staff, Senior, Supervisor, Manager, Partner?
   
   Staff = 1   Senior = 2   Supervisor/Manager = 3

2. Which do you consider to be your main area of practice: Audit, Tax, Advisory Services, Other (specify). Please select just one area.
   
   Audit = 1   Tax = 2   Advisory Services = 3   Other = 4

3. Locus of control measure responses are based on a six point Likert scale.

   For each of the following statements, please indicate how much you agree or disagree with the statement using the following scale:

   1   Disagree Very Much   4   Agree Slightly
   2   Disagree Moderately   5   Agree Moderately
   3   Disagree Slightly     6   Agree Very Much

4. The DIT P score was calculated according to the DIT manual instructions.

5. The deontological and teleological measures are the sum of six items (three items used with two case scenarios), scored with a seven point scale. The first three items listed below are teleological, the others are deontological.

   Produces the Greatest Utility
   Produces the Least Utility

   Maximizes Benefits While Minimizes Harm
   Minimizes Benefits While Maximizes Harm

   Leads to the Greatest Good for the Greatest Number
   Leads to the Least Good for the Greatest Number

   Violates an Unwritten Contract
   Does Not Violate an Unwritten Contract

   Obligated to Act this Way
   Not Obligated to Act this Way

   Violates an Unspoken Promise
   Does Not Violate an Unspoken Promise

5. In your present situation, how possible is it to successfully underreport your chargeable time?

   Extremely Possible   1   Extremely Difficult   6
   Very Possible        2   Very Difficult       5
   Somewhat Possible    3   Somewhat Difficult  4

168
7. How likely is it that successful underreporting will lead to rewards or benefits (better performance evaluations, increased job security, etc.)?

<table>
<thead>
<tr>
<th>Extremely Likely</th>
<th>1</th>
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<tbody>
<tr>
<td>Very Likely</td>
<td>2</td>
</tr>
<tr>
<td>Somewhat Likely</td>
<td>3</td>
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<tr>
<td>Extremely Unlikely</td>
<td>6</td>
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<tr>
<td>Very Unlikely</td>
<td>5</td>
</tr>
<tr>
<td>Somewhat Unlikely</td>
<td>4</td>
</tr>
</tbody>
</table>

8. What percentage of time budgets would you meet if you did **NOT** underreport your chargeable time (0 - 100%)?

__________ %

9. In your present situation, how possible is it to successfully prematurely sign-off on an audit procedure not performed?

<table>
<thead>
<tr>
<th>Extremely Possible</th>
<th>1</th>
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</thead>
<tbody>
<tr>
<td>Very Possible</td>
<td>2</td>
</tr>
<tr>
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<td>5</td>
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<tr>
<td>Somewhat Difficult</td>
<td>4</td>
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</tbody>
</table>

10. How likely is it that premature sign-offs on audit procedures will lead to rewards or benefits (better performance evaluations, increased job security, etc.)?

<table>
<thead>
<tr>
<th>Extremely Likely</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
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<td>5</td>
</tr>
<tr>
<td>Somewhat Unlikely</td>
<td>4</td>
</tr>
</tbody>
</table>

11. What percentage of time budgets would you meet if you did **NOT** prematurely sign-off on audit procedures (0 - 100%)?

__________ %

12. Each participant read two case scenarios. In the underreporting scenario, the number of hours worked to perform a specific audit procedure had exceeded the procedure’s 50 hour time budget. In the premature sign-off scenario, the auditor was in the process of evaluating a client’s system of internal control and had already worked the budgeted 50 hours and was still not finished. After reading the scenarios, participants responded to a series of questions. Questions 1-5 shown on the next page were asked with the underreporting case scenario, questions 6-9 are responses to the premature sign-off case scenario.

For each of the following statements, please indicate your response using the following scale:

1. Extremely Likely
2. Very Likely
3. Somewhat Likely
4. Neither Likely or Unlikely
5. Somewhat Unlikely
6. Very Unlikely
7. Extremely Unlikely

1. How likely is another accountant to underreport their chargeable hours in the situation given above?

1 2 3 4 5 6 7
2. How likely are you to underreport your chargeable hours in the situation given above?

1 2 3 4 5 6 7

3. How many hours would you report on your time sheet as chargeable?

_________________________ hours

4. If your Firm's code of conduct specifically prohibited underreporting activity, how likely would you be to underreport your chargeable hours in the situation given above?

1 2 3 4 5 6 7

5. If your Firm had a stated policy of terminating anyone caught underreporting, how likely would you be to underreport your chargeable hours in the situation given above?

1 2 3 4 5 6 7

6. How likely is another accountant to sign-off on the audit procedures without performing the procedures in the situation given above?

1 2 3 4 5 6 7

7. How likely are you to sign-off on the audit procedures without performing the procedures in the situation given above?

1 2 3 4 5 6 7

8. Assume that the remaining procedures are really immaterial to the performance of the review and evaluation of internal control. How likely are you to sign-off on the audit procedures without performing the procedures in the situation given above?

1 2 3 4 5 6 7
VITA

Mike Shapeero holds a Bachelor’s degree in Accounting and a Masters of Business Administration with a concentration in Accounting from the California State University, Chico. He is a Certified Public Accountant, licensed in California, and a Certified Management Accountant.

His professional work experience includes six years of public accounting practice during which he provided audit, tax planning and preparation, financial accounting, and management consulting services. He has been employed by both national and local public accounting firms.

He has served on the faculties of the California State University, Chico, Virginia Polytechnic Institute and State University, and the University of Wisconsin-Eau Claire. He has taught accounting courses at both the graduate and undergraduate levels.

His publications include articles in Professional Ethics: A Multidisciplinary Journal, Journal of Managerial Issues, and Management Accounting. He is a member of the American Accounting Association, the Institute of Certified Management Accountants, and the Institute of Management Accountants.

Mike Shapeero

171