

THE EFFECTIVENESS OF INDEPENDENT AUDIT COMMITTEE DIRECTORS
WITH ACCOUNTING CERTIFICATIONS IN PREVENTING REPORTING
IRREGULARITIES IN PUBLICLY TRADED COMPANIES

By
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By


Larry Allen Rager

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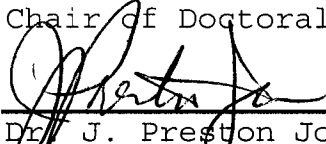
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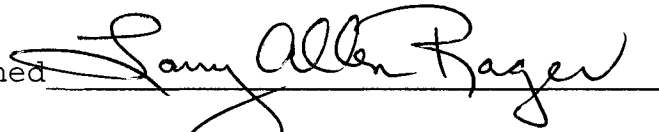


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2004

ABSTRACT

THE EFFECTIVENESS OF INDEPENDENT AUDIT COMMITTEE
DIRECTORS WITH ACCOUNTING CERTIFICATIONS IN PREVENTING
REPORTING IRREGULARITIES IN PUBLICLY TRADED COMPANIES

By

Larry Allen Rager

This research project focused on the question: Does inclusion of independent financially literate and/or accounting certified audit committee directors reduce the incidence of management misreporting? The purpose of the study was to evaluate the effect of accounting certified independent audit committee members as part of the recent empirical research examining board composition variables in determining company performance. The scope of this research is limited to disclosure in Securities and Exchange Commission (SEC) Accounting and Auditing Enforcement Releases, other SEC filings, other published literature, and the membership rosters of the American Institute of Certified Public Accountants, Institute of Certified Management Accountants, and the Institute of Internal Auditors. This study concludes that audit committee effectiveness is not dependent solely on the presence of independent directors with financial literacy or accounting certification.

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CHAPTER I

INTRODUCTION

Background of the Problem

This study is an empirical examination of whether there is evidence of a systemic relationship between board composition and a reduction of improper financial reporting. Board composition in this study is defined as inclusion of an independent director with certification as an accounting professional, for example, a Certified Public Accountant (CPA), Certified Management Accountant (CMA), or a Certified Internal Auditor (CIA).

Agency theory addresses the corporation as the nexus of contracts (Baysinger & Butler, 1985). Ultimate selection of nominees for membership on the board of directors is one of the governance decisions delegated to the chairman of many corporations. Shareholders prefer an agency relationship (and board representation) that will protect them from excesses by their agents while minimizing the costs associated with their investment (Baysinger & Butler,

1985).

Board memberships reflect numerous composition characteristics including the degree of ownership, education, business experience and whether the individuals are members of management or independent directors. Agency theory suggests that the board of directors is one of the most effective mechanisms for a firm's internal control (Fama & Jensen, 1983). Public corporations in the United States are required to conduct their activities under the direction of a board of directors. Shareholders empower the board of directors with ultimate control and authority for monitoring and ratifying the decisions of management (Fama & Jensen, 1983).

Publicly traded corporations of the United States have exhibited a substantial increase in the incidence of management fraud, and/or reporting irregularities. In recent years, several high profile corporations—including Bally Fitness, Costco, Cendant, Corel, General Automation, International Business Machines (IBM), Livent, Lucent, National Steel, Sunbeam, SunTrust Banks, Tyco, and Waste Management, Inc.—have announced restatements of prior earnings in response to financial irregularities. The perception of American business is that temptations to meet short-term expectations of financial analysts are

superceding corporate and shareholder long-term interests (Barr, 1998). This results in loss of investor confidence in the affected stocks and the overall stock market.

The 1998 fraud survey done by KPMG Peat Marwick reported that 62% of companies acknowledged incidents of fraud during the prior year and consider fraud to be a major problem (KPMG, 1999). This increase comes in spite of efforts by the federal government to reduce fraud and reporting irregularities by requiring all organizations to implement compliance programs to maintain internal mechanisms for the prevention, detection, and reporting of criminal conduct.

As the monitor of publicly traded businesses, the Securities and Exchange Commission (SEC) is the primary advocate for establishment of effective internal controls and assessment of their effectiveness. Accounting and Auditing Enforcement Releases (AAERs) are used by the SEC to summarize accounting-based enforcement actions (Feroz, Park, & Pastena, 1991). The most common violations of SEC regulations, as identified by AAERs, involve violations of internal control provisions, revenue recognition problems, and management misrepresentations (Moffeit & Montondon, 1994).

On September 28, 1998, then SEC Chairman Arthur Levitt

announced a major effort to eliminate questionable accounting techniques that misreport financial results and to educate investors about the abuses (Chambers, 1999). According to Chairman Levitt, companies are using inappropriate earnings management and operating with "gray" accounting practices that fall between legitimate techniques and fraud for the purpose of manipulating earnings in order to keep results from falling short of analysts' projections for the period (Chambers, 1999). Chairman Levitt specifically cited several practices of inappropriate manipulation of earnings including overstating "big bath" restructuring charges, misuse of acquisition accounting write-offs, "cookie jar reserves" or over-accruals, early revenue recognition, deferral of expenses, and distortion of materiality to mask improper accounting treatment (Blue Ribbon Committee, 1999, p. 18).

Blue Ribbon Committee

In September, 1998, the SEC, New York Stock Exchange (NYSE), and the National Association of Securities Dealers (NASD) formed a "blue-ribbon" panel of 11 industry leaders "to make recommendations on strengthening the role of audit committees in overseeing the corporate financial reporting

process" (Blue Ribbon Committee, 1999, p. 48). The Blue Ribbon Committee requested public comment recommendations and held an all-day hearing during December 1998, at which leaders of accounting, business, and financial organizations provided testimony and written comments. In February 1999, the Blue Ribbon Committee issued their report and two sets of recommendations. The first set focuses on strengthening the independence of the audit committee, and recommends that NASD require all listed companies with a market capitalization above \$200 million, to have (as do all NYSE companies) audit committees comprised solely of at least three independent directors (Blue Ribbon Committee, 1999). The second set of recommendations focuses on making audit committees more effective and recommends that audit committee directors be "financially literate" and that "at least one member of the audit committee have accounting or related financial management expertise" (Blue Ribbon Committee, 1999, p. 12). The Blue Ribbon Committee (1999), in addressing the need for audit committee members having the attribute of financial literacy, stated:

Because of the audit committee's responsibility for overseeing the corporate accounting and financial controls and reporting, . . . , this committee clearly

has a more recognizable need for members with accounting and/or related financial expertise--where "expertise" signifies past employment experience in finance or accounting, requisite professional certification in accounting, or any other comparable experience or background which results in the individual's financial sophistication, including having been a CEO or other senior officer with financial oversight responsibilities. (p. 25)

Committee of Sponsoring Organizations of the Treadway
Commission

In March 1999 the Committee of Sponsoring Organizations (COSO) of the Treadway Commission released commissioned research on Fraudulent Financial Reporting to clarify the "who, why, where, and how of financial reporting fraud" (Beasley, Carcello, & Hermanson, 1999, p. iii). The research examined Accounting and Auditing Enforcement Releases issued from 1987 through 1997 for Securities and Exchange Commission allegations of fraudulent financial reporting. The COSO research (Beasley, et al., 1999) identified four common fraud motivations:

1. Enhancement of earnings or avoidance of pre-tax

losses.

2. Manipulation of stock prices to benefit insiders and to enhance cash proceeds from future stock issues.
3. Achievement or maintenance of minimum requirements for stock exchange listing.
4. Hiding employee conversion/theft of assets.

Of the research sample fraud companies cited by the SEC, 83% named the chief executive officer (CEO) and/or the chief financial officer (CFO) of the corporation as respondents (Beasley et al., 1999).

This appears consistent with results of a survey conducted at a conference of chief financial officers that reported that 55% had been requested to manipulate financial results and 17% had complied (Barr, 1998). An earlier survey by Rosenzweig and Fischer (1994) determined that more experienced accountants in higher management positions are more tolerant of earnings manipulation than accountants at lower job levels. Accounting-certified employees do succumb to pressure to manipulate results as evidenced by these studies, and by the routine inclusion of such individuals as named respondents in AAERs.

The research commissioned by COSO found that of the

sample fraud companies, on average only 35% of audit committee members met the criteria of having "financial literacy" as recommended by the Blue Ribbon Committee (Beasley, et al., 1999). The COSO research considers an expert in accounting or finance as an audit committee member who is:

certified as a Certified Public Accountant (CPA), or Certified Financial Analyst (CFA), or had prior work experience in serving as a CFO, VP of finance, controller, treasurer, auditor, banker, investment banker, financial consultant, investment manager, or venture capitalist (Beasley, et al., 1999, p. 17).

Prior research suggests that independent directors are more vigilant monitors of shareholder interests than internal directors (Beasley, 1996; Byrd & Hickman, 1992; Kalbers & Fogarty, 1995). Prior studies have focused on board composition and the effects on bankruptcy, buyouts, greenmail, management self-interest, and tenure. Such research has not examined the financial literacy of independent directors to determine if the presence or absence of management reporting irregularities has any correlation to presence of financially literate audit committee directors.

The Purpose of the Study

The purpose of this research is to evaluate the effect of "accounting certified" independent audit committee directors (who would qualify as financially literate as defined by the Blue Ribbon Committee) on the incidence of reported management misreporting by publicly traded entities. The SEC, public accounting firms, publicly traded corporations, investors, insurance providers for directors and officers coverage and many other groups have an interest in determining the implications to financial reporting (if any) in having independent audit committee directors who hold an accounting certification. Based on the recommendations of the Blue Ribbon Committee, inclusion of financially literate audit committee directors is a *priori* to reduce misreporting of financial data. The COSO research found an average of 35% of audit committee members of violating companies met criteria that the Blue Ribbon Committee would qualify the directors as "financially literate" (Beasley et al., 1999). This study is being performed to determine whether presence of an independent audit committee member with a professional accounting certification reduces incidents of irregular reporting more than the "financial literacy" qualifications put forth by

the Blue Ribbon Committee.

Certified Public Accountants, Certified Management Accountants, and Certified Internal Auditors (hereinafter referred to as accounting certified professionals) as a result of their formal education, experience, professional ethics codes, and continuing education requirements are presumed to have achieved the financial expertise and a probing mind requisite necessary on audit committees. Financial expertise includes the following characteristics:

1. Accounting Knowledge

Financially literate directors should be familiar with Generally Accepted Accounting Principles, and understand the firm's accounting policies and their consequences on the entity.

2. Understanding of Internal Controls

Directors should have an understanding of the types and basis of irregular reporting as well as an understanding of control procedures that prevent or detect such misreporting. Directors should also be satisfied that internal controls that are in place, are being followed.

3. Understanding of Risks

Directors should have an adequate appreciation of business and financial risks and an understanding of compliance programs required of organizations by Federal

law.

4. Agency Representative and Ethical Conduct

Audit committee directors should have a probing mind and a commitment as an agent of the shareholders to act in the shareholder's best interests, insure that they are informed, and perform their duties in accordance with their professional certification code of ethics.

In 1986 research on "Board Composition and the Commission of Illegal Acts," Kesner, Victor, and Lamont suggested that future researchers should examine board reforms to reduce improper reporting and to examine directors' experience, education, and financial skills. Pearce and Zahra (1992) suggest that empirical research on board composition variables such as director roles needs to be undertaken to determine prediction values on company performance.

Theoretical Framework

Research about elements of board composition as well as responsibilities of audit committee members are topical issues in both practitioner and academic publications. Several boards of directors and audit-committee-related studies within the past decade are based on a framework of

agency theory (Bathala & Rao, 1995; Baysinger & Hoskisson, 1990; Beasley, 1996; Byrd & Hickman, 1992; Lee, Rosenstein, Rangan, & Davidson, 1992; McMullen, 1996; Rosenstein & Wyatt, 1990) to analyze the effects of boards as monitors of management.

Agency theory deals with relationships where a principal and an agent are contractually engaged but have conflicting goals (Jensen & Meckling, 1976). Self-interests are a cornerstone of agency theory and management actions that result in financial reporting irregularities that are an example of the conflicting goals. The board of directors is a relevant information system for monitoring management (Eisenhardt, 1989).

Eisenhardt (1989) suggested that agency research be expanded into more complex contexts including lying, other forms of secrecy, and blame to establish a better understanding of self-interest behaviors. Abrahamson and Park (1994) followed this suggestion and provided empirical evidence that in times of difficulty, corporate officers engage in behavior that shifts blame from themselves and also may conceal negative outcomes from shareholders. This research used an agency theory framework to examine impacts of having accounting-certified, independent audit committee directors representing the interests of corporate owners as

a counter to potential self-interests of management.

Research Question

This research project focused on the following question:

Does inclusion of independent financially literate and/or accounting-certified audit committee directors reduce the incidence of management misreporting?

Importance of the Study

This research is expected to provide additional knowledge about the impact of accounting-certified individuals serving as independent directors on audit committees in reducing incidents of management fraud or reporting irregularities. The recommendations of the Blue Ribbon Committee and COSO indicated that financial expertise is an important skill for audit committee directors. The Blue Ribbon Committee's definition of financial expertise (which includes experience as a CEO with financial responsibilities), as well as COSO's broad inclusion of experience which would provide financial sophistication (such as a CFO, vice president (VP) of

finance, controller, treasurer, auditor, banker, investment banker, financial consultant, investment manager, or venture capitalist), are extremely broad definitions (Blue Ribbon Committee, 1999; Beasley, et al., 1999). These do not recognize that directors who lack the defined accounting certification may also lack the education, experience, code of professional ethics, and continuing education training necessary to identify potential problems and appreciate the consequences of management misreporting required of such certified individuals. While the COSO research indicated that an average of 35% of audit committee members met their broader definition of financial literacy in the sample fraud companies reported, it did not distinguish individuals deemed as financially literate by having achieved qualification as an accounting certified professional.

An improved understanding of the distinguishing effects of accounting certified professionals as opposed to simply financially literate audit committee members will enable board nominating and search committees to seek the best qualified candidates. If accounting-certified audit committee directors have the hypothesized impact, auditors, both independent and internal, will have directors to work with who have a full understanding of accounting

irregularity problems and consequences. Likewise, investors might gain confidence that their representatives in this agency relationship with management are fully qualified to recognize the symptoms, methodologies, and implications of accounting irregularities. Regulators such as the SEC, COSO, and the stock exchanges will find the results of this research valuable to further refine recommendations for dealing with the misreporting problems identified by SEC Chairman Levitt. The certifying organizations (the American Institute of Certified Public Accountants, the Institute of Management Accountants, and the Institute of Internal Auditors) will benefit from identification of any incremental benefits from having their licensed/certified members as representatives on audit committees of publicly traded corporations.

Scope of the Study

The scope of this research is limited to disclosure in SEC Accounting and Auditing Enforcement Releases; SEC Form 10-K Filings and/or DEFA14A Proxy Statements; Standard and Poor's Register: Corporations, Directors and Executives; Marquis Who's Who In America; Corporate Yellow Book, Who's Who at the Leading U.S. Companies; Lexis-Nexis Biographical

Information; The Corporate Library-Director Profiles; Big Business Directory; and rosters of certified members of the American Institute of Certified Public Accountants (AICPA), Institute of Certified Management Accountants (ICMA), and Institute of Internal Auditors (IIA).

Organization of the Study

This chapter focuses on recognition of the accelerating problem of management misreporting by public companies, the violation of the agency relationship that this represents, and possible internal control improvements that shareholders and boards of directors can implement to reduce such incidents. Chapter II provides a review of relevant literature on the monitoring function of boards of directors and audit committees, agency relationships, and recommended qualifications for audit committee membership.

Chapter III describes the research design of the study including sample selection, data collection, and development of research hypotheses. Chapter IV contains empirical results of the study, and Chapter V reports the summary, conclusions, limitations, and suggestions for future research.

CHAPTER II

REVIEW OF LITERATURE

This chapter develops the underlying theory about the relationship of audit committee composition and the incidence of accounting irregularities. The existing theory suggests that it is an important role of the audit committee to monitor the activities of management. This chapter investigates the literature relevant to the monitoring activities by boards of directors and audit committees. This chapter discusses the theory on which the study is based, identifies previous research, and provides a structure for the research methodology.

Agency Theory: Boards of Directors Monitor Management

Agency theory suggests that separating management and control of an organization utilizing the board of directors for ratification and monitoring is an effective mechanism for a firm's internal control (Fama & Jensen, 1983). The

ideal organization utilizes the board of directors for a system of checks and balances to avoid concentrations of power that could otherwise be crime facilitative through the failure to prevent illegal activities (Daboub, Rasheed, Priem, & Gray, 1995, p. 139). Monitoring decisions and actions of management is a principal responsibility of the board of directors. When top management controls boards, there may be collusion and self-interest within the executive ranks that dispossess the other investors of their beneficial interests (Fama, 1980). The potential for management override of controls is a major weakness in many organizations where management can delegate authority, define duties, authorize transactions or bypass internal control mechanisms (Moffeit & Montondon, 1994). An analysis of AAERs issued from 1987 to 1991 found that 94% of the 208 SEC releases involved management misrepresentations, revenue recognition problems, or violations of internal control provisions (Moffeit & Montondon, 1994).

According to Eisenhardt (1989), agency theory is most relevant in situations where substantial goal conflict exists between principals and agents, and opportunism by the agent is likely. In addition to attempts to resolve the principal agent conflict, agency theory is also concerned with the problems created when the principal has difficulty

and may incur unspecified expenses in verifying what the agent is doing (Eisenhardt, 1989). Agency theory also suggests that differences between management and bondholders or independent equity holders can be reduced by use of increased monitoring of covenants and detailed financial information (Jensen & Meckling, 1976).

Board of Directors Composition

Agency theory allows a basis for developing hypotheses about the correlation of control systems that result from board composition and how changes in board composition impact strategic choices (Baysinger & Hoskisson, 1990). The proportion of independent board members has an inverse relationship that can reduce board agency conflicts according to the evidence in an agency theory– multivariate framework study, by Bathala and Rao (1995). Harold Geneen (1984) suggested that only independent directors should serve as chairman because a chief executive officer is unable to impartially judge his or her own actions and represent shareholders and too often dominates the activities and meetings of the board.

Abrahamson and Park (1994) performed agency theory research using a computer-assisted content analysis

regression technique and found that auditors, independent directors, and institutional investors prompt the disclosure of organizational problems or negative outcomes that might otherwise be concealed. According to Kosnik (1987), when separation of ownership and decision making exists, directors' application of expertise and experience in control and strategic decision making will determine the effectiveness of the board.

Beasley (1996, p. 444) noted that "the relation between board of director composition and occurrences of financial statement fraud is particularly important to the accounting profession, because accountants have a responsibility to identify situations where financial statement fraud has a greater likelihood of occurring." Principal-agent theory suggests that the presence of independent directors with specific financial training and experience will reduce the incidence of management irregularities or fraud. Board members with accounting credentials are more likely to be aware of what accounting and reporting activities are in violation of Securities Exchange Commission, Financial Accounting Standards Board (FASB), AICPA, or other regulatory requirements than board members without such training.

Several articles provide the basis for board

composition research. Eisenhardt (1989, p. 72) came to the conclusion that "agency theory provides a unique, realistic, and empirically testable perspective on problems of cooperative effort." The work of Bathala and Rao (1995) discusses the relationship of agency cost and financial variables with board composition. Their study established an inverse relationship between the percentage of independent directors and other agency conflict-controlling mechanisms, but also found that a majority of independent directors is not necessarily an optimal structure.

Research by Beasley (1996) used logit cross-sectional regression analysis and confirmed the prediction that more financial statement fraud occurs in firms with the lower percentage of independent directors. Board composition (inside versus independent directors) was determined as a more significant variable than the presence of an audit committee in lowering the occurrence of financial statement fraud (Beasley, 1996). In later research, Beasley (1998) found that in firms experiencing fraud, inside and independent directors both represent about 50% of board seats, where in firms experiencing no fraud, independent directors represent about 65% of board seats.

According to Westphal and Zajac (1995a), the predominance of independent directors allows boards to

establish their own priorities and constrain the preferences of the CEO. Rosenstein and Wyatt (1990) examined the effect of independent directors on the market value of equity for studied firms and found a positive relationship to the appointment of independent directors. Lee et al. (1992) established an agency problem in their study of board composition and shareholder wealth when dealing with inside directors and management buyouts. Top executive behavior is more likely to correlate to shareholder interests when the board meets frequently, functions with subcommittees, has a number of long tenure members representing ownership groups, and members with industry and managerial experience (Eisenhardt, 1989). Byrd and Hickman (1992) used an ordinary least squares regression analysis, and found that when independent directors represent 40-60% of board positions, consistent monitoring of board activities was evident. They found that when a smaller percentage of board positions (35-40%) are held by independent directors, evidence of board monitoring is lacking.

Economic self-interest is at the center of agency theory and audit committee effectiveness impacts elements which alter agency costs (Kalbers & Fogarty, 1995). The effects of management self-interest were demonstrated in

research by Dhaliwal, Salamon, and Smith (1982) that showed firms controlled by management were found to choose accounting methods (such as depreciation) that inflate earnings more than owner-controlled firms. "Greenmail" transactions represent situations in which companies repurchase large blocks of shares (at a premium to market) from dissident shareholders perceived as threats to management. Bradley and Wakeman (1983) found in their agency theory research that ineffective executives used greenmail to maintain management control at the expense of other shareholders and to the detriment of future earnings. When boards have only a few independent directors and when their managerial experience is limited, management is most likely to succeed with a greenmail effort to preclude an imminent dissident takeover (Kosnik, 1987).

Board composition and director independence have generated extensive empirical research relating to firm financial performance, executive turnover, distressed or bankrupt firms, CEO compensation, anti-takeover provisions, shareholder lawsuits, and strategic orientation. Pearce and Zahra (1992) noted that composition of the board is an important variable for analysis of performance of duties and contributions to financial performance for a firm. Research on boards has yet to determine a specific role for

directors, but the expectation is that independent directors will be more effective in monitoring the self-interests of management than will dependent directors (Lipton & Lorsch, 1992).

Research by Johnson, Daily, and Ellstrand (1996) notes that while research has yet to identify a specific role for independent directors, the search for such roles should be continued. Supporters of board reforms suggest that independent directors be nominated based on factors including functional expertise and specialized knowledge (Waldo, 1985).

Dalton and Kesner (1987, p. 35) noted a correlation between troubled businesses and directors "unwilling or unable" to perform fiduciary duties and concluded that director effectiveness must be enhanced to improve corporate performance. Public accounting firms recognize that in their auditing function they report to the board of directors. But the auditors often find the audit committee focus is on review of the audit reports and fees, "leaving the auditors to report to, receive their assignments from, and recognize that their employment is dependent on the chief financial officer" (Koontz, 1967, p. 179).

Agency Theory: Board Audit Committees Monitoring Role

The SEC does not require audit committees, but the major stock exchanges do. For U.S. publicly traded companies the three major exchanges, (NYSE, NASDAQ, and AMEX), require board audit committees. Of the three, the NYSE has the most stringent audit committee membership requirement mandating that all of the directors serving in this capacity be independent directors. NASDAQ requires only that the majority of members of the audit committee be independent directors, while AMEX only recommends that audit committee members be independent from management.

The National Commission on Fraudulent Financial Reporting (known as the Treadway commission), issued in October 1987, 11 recommended practice guidelines for audit committee members including the specification of a written charter of audit committee duties and responsibilities. The commission went on to suggest that "corporations might consider special training for current members or recruit board members specifically qualified for service on the audit committee" (Bull & Sharp, 1989, p. 50).

The Committee of Sponsoring Organizations (COSO), formed under the auspices of the Treadway Commission, was an assemblage of leading accounting and financial

organizations. The 1992 COSO report focused on financial and accounting process elements of internal control and to a lesser extent, the impact of the management processes and corporate culture (Glover & Aono, 1995). The six areas of information that the Treadway Commission suggested are necessary for audit committees to evaluate are financial statements, control structure, compliance, economy and efficiency, goal achievement, and fraud (Pavlock, Sato, & Yardley, 1990). These suggested areas nearly replicate the responsibilities suggested by Charles Waldo (1985) regarding the roles, structures, and information needs of board members. But the COSO report neither defined the necessary qualifications or expertise for an audit committee member's success, nor the specific responsibilities required for effective monitoring of internal controls (Kelly, 1993).

Menon and Williams (1994) noted that audit committees that include inside directors lack objectivity and also noted an SEC statement that inclusion of inside directors on the audit committee might be worse than no audit committee since it could mislead shareholders by giving the appearance of effective monitoring of management. The reliability of financial reporting is enhanced by an effective audit committee and provides the greatest

protection to shareholders (Carcello & Neal, 1997). Daily (1996) points out that the audit committee plays a greater role than the board of directors as a whole, in protecting the financial status of a company. Board members rely on audit committee members to note and question aggressive accounting procedures, variations in business practices, and adherence to the corporation's codes of conduct (Bean, 1999).

Audit committees are viewed as monitors to improve the quality of information flows in agency situations with potential high exposure (Pincus, Rusbarsky, & Wong, 1989). Agency theory research (e.g., Pincus et al., 1989) has indicated that the agency costs of equity reflect that shareholders are an audit committee's primary constituency. Bradbury (1990, p. 33) in his agency theory study of audit committee formation, found audit committees to be "efficient mechanisms," especially with larger boards, for the review of financial statements prepared by the independent auditors. Studies found that firms with audit committees are less likely to have illegal acts, SEC enforcement action, irregularities, or unreliable financial statements (DeFond & Jiambalvo, 1991; McMullen, 1996).

Dechow, Sloan and Sweeney (1996) evaluated AAERs using chi-square analysis and logistic regression and found a

correlation in earnings manipulation and weakness in oversight of management because of a lack of an audit committee, absence of large independent shareholders, and the presence of an insider-dominated board. Parker (1998) found evidence using an OLS regression that audit committees with an absence of inside directors restrain income-increasing accounting and result in more-conservative reporting. While management may attempt to smooth earnings or avoid disclosure of unfavorable developments, independent auditors are not positioned to challenge management judgements unless accounting adjustments and allowances are in violation of approved practices and procedures (Anderson & Anthony, 1986). The audit committee, however, should monitor such practices and evaluate whether such actions are independent of limits of reasonableness and legitimacy (Anderson & Anthony, 1986).

Audit Committee Qualifications

The major stock exchanges do not specify any specific training, qualifications, or responsibilities of audit committee members. Business experience was long regarded as the essential background for directors. Retired officers of other public corporations and individuals lacking a

business background may not wish to participate in the oversight role of an audit committee according to Wallace (1985). Baum and Byrne (1986) noted that technical expertise is often lacking in lay directors without a business background. But in nominating directors, some independent directors may be more valuable than others, since often directors are added to lend gender or racial diversity, or because they are well-known individuals, rather than for their business experience (Bhagat & Black, 1997).

Accounting Knowledge and the Audit Committee

Firstenberg and Malkiel (1994) recognized the lack of defined responsibilities as a weakness of boards and recommended a strengthening of their role with a list of specific job expectations including the ability to work with independent auditors to test reporting systems and financial controls. Bean (1999, p. 47) commented that "at many companies audit committee members may not have the expertise in matters of internal control that CPAs do, and some people serving on audit committees have very little accounting or financial background at all." Pearce and Zahra (1991) did research that considered characteristics

or attributes of the board that included competence and expertise and their effect on the power of the board. The conclusion of their research using ANOVA found that boards lacking expertise and independence were less powerful and had less than superior corporate financial performance (Pearce & Zahra, 1991). In later research, they found that often directors do not have the requisite skills necessary to exercise effective control or provide counsel to management (Pearce & Zahra, 1992).

While knowledge of finance and accounting as well as experience working with auditors are helpful, generally directors are not selected because they would fulfill a need for the audit committee (Neumann, 1985). Even retired officers of other public corporations may lack a comprehension of current accounting and reporting issues and may also lack the desire to become deeply involved in the monitoring of management (Knapp, 1987).

Increasingly, there is recognition that service on an audit committee might require an occupational background that provides a strong working knowledge of business practices and concepts (Kesner, 1988). In times of financial distress, representation by independent directors with special expertise increases, and "although all directors can in principle monitor managers' performance,

directors' backgrounds and affiliations will in practice affect their ability to monitor effectively" (Gilson, 1990, p. 369). Kalbers and Fogarty (1993, p. 28) noted that audit committee members with skills in accounting and finance as well as knowledge of the company and industry could contribute to effectiveness of the committee and thus provide "expert power." Likewise, Lear (1998) urged chief executive officers to improve the quality and effectiveness of audit committees by recruiting new board members with background and experience in financial controls, auditing, and information technology.

Scarbrough, Rama, and Raghunandan (1998) utilized chi-square analysis of audit committee composition in their research on interaction with internal auditing, and noted that a key responsibility of the audit committee is to ensure the design and implementation of effective internal controls. English (1994) noted that the caliber of audit committee members and the provision of wide and explicit powers to the audit committee directly affect the value of the committee and how it is regarded by other board members and senior management. Barr (1998) suggested that while providing more specific duties and responsibilities for audit committee members may be acceptable to companies, the prospect for specifying their qualifications would meet

with resistance because it might require the company to evaluate the financial talents of board candidates.

Ironically, the Federal Deposit Insurance Corporation Improvement Act (FDICIA) effective in 1993 requires audit committees of very large banks and savings institutions to have audit committees with at least two members who have financial management expertise or banking experience (McMullen, 1994). Prior to the FDICIA, a survey done by the General Accounting Office reported that only 35% of bank audit committee members had auditing or accounting experience (Verschoor, 1993). The FDICIA further requires that access to independent legal counsel also be available.

According to Chapin (1993), such requirements are logical for all large public companies and should be required by statute or by SEC action. Bull and Sharp (1989) recommended that CPA firms communicate to clients the qualifications for audit committee service. The qualities suggested include financial statement literacy, analytical abilities, an understanding of both internal and independent audit processes, and the disposition to probe and get answers (Bull & Sharp, 1989). Backgrounds recommended for audit committee directors by Bull and Sharp (1989) include retired CPA firm partners, chief financial officers and chief internal auditors of other corporations,

and academics with appropriate credentials and skills.

While Bull and Sharp (1989) also include CEOs of other corporations as prospective audit committee directors, Verschoor (1993) does not recommend other CEOs for such assignments. His research found that the audit committee chair of 39% of the 229 largest publicly held companies other than banks, also served as either the chairman of the board or chief executive officer of another company (Verschoor, 1993). It raises the question whether a person whose primary obligation (and source of income) derives from duties as a board chair or CEO, has the necessary time and energy to properly perform the duties of audit committee chair for another company (Verschoor, 1993). Also, when chairmen and CEOs from other companies serve as chair of the audit committee, it raises concerns cited by Westphal and Zajac (1995b, p. 282), which indicated that CEO directors are a relatively homogeneous group who "may support fellow CEOs under normal conditions by impeding increased board control over management."

Audit committee responsibilities cover a wide range of comprehension and knowledge, and the processes of accounting and auditing are subject to change (Braiotta, 1994). Braiotta (1994) notes that the effectiveness of the audit committee correlates to the background of the members

and the chairperson and recommends that persons with both financial and nonfinancial backgrounds be included. Thus the question: Does the inclusion of accounting-trained board members reduce the incidence of management irregularities? McMullen and Raghunadan (1996, p. 80) noted that "expertise in accounting, internal controls and auditing" are the cornerstone abilities for audit committee effectiveness and theorized that a CPA on an audit committee would enhance the accounting, auditing, and financial reporting awareness of the committee.

Daboub et al.(1995) proposed that inclusion of militarily experienced executives on the top management team reduces active corporate participation in illegal activities because individuals with military backgrounds are perceived as having the virtues of a professional code, discipline, and dedication as a result of intensive training. These are characteristics similar to the education, training, and codes of professional conduct required of professionally certified accountants. Executive search firms are seeing an increasing demand for chief financial officers to serve as independent directors of corporate boards because of their ability to understand the bigger picture as well as their contributions on audit committees (McLean, 1998).

Does the presence of an independent director with a professional accounting credential increase board effectiveness in reducing incidents of management irregularities? Independent directors with professional credentials as a Certified Public Accountant (CPA), Certified Management Accountant (CMA), or Certified Internal Auditor (CIA) are by training attuned to the rules and regulations that determine the basis for financial reporting and business ethics. The theory, research, and observations noted suggest that the presence of one or more of these professionally certified individuals as an independent director on an audit committee will increase the monitoring of management and reduce the incidence of management fraud or reporting irregularities.

CHAPTER III

METHODOLOGY

This chapter begins with a review of theoretical linkages. A general overview of audit committee responsibilities and requisite skills of committee members follows. Underlying hypotheses of the empirical section of the research are discussed next, including a description of the analytical methods that the study employed.

Theoretical Linkages

This study will add to the body of knowledge established by several previous studies. Beasley (1996, p. 463), in concluding that "board composition ... and certain outside director characteristics also affect the likelihood of financial statement fraud," suggested that additional work be done on understanding audit committee effectiveness in fulfilling "their financial reporting oversight responsibilities." McMullen (1996) concluded that the presence of audit committees resulted in fewer reporting

irregularities. McMullen also suggested research on the "differences between the audit committees of companies with and without financial reporting problems, in terms of composition, independence and experience of audit committee members ... to enhance audit committee performance and improve the reliability of financial reporting" (1996, p.101). Kalbers and Fogarty (1995, p.27-28) concluded "that the mandatory creation of entities such as audit committees is only a first step toward enhancement of the control environment" and suggested that there is a "need for further research of audit committees and other monitoring devices."

The overall hypothesis of this study states that independent, financially literate, and/or accounting-certified audit committee directors possess the expertise in accounting knowledge, understanding of internal controls and risks, and ethical conduct that contribute to the financial literacy of audit committee agency representatives. The expected result was that the presence of accounting-certified independent audit committee members reduces incidents of intentional management misreporting in publicly traded corporations.

Overview

Independent audit committee members provide important controls as representatives of the shareholders in three key areas: financial, compliance, and performance. For their review and appraisal of financial and operating information, such members are expected to have sufficient financial understanding of both the company and the industry to assess the integrity and reliability of financial statements and operating data. This requires knowledge of Generally Accepted Accounting Principles.

Independent audit committee members are also expected to have compliance skills that reflect a knowledge and understanding of the company's internal policies, plans, and procedures as well as external laws and regulations that affect the business. This area requires audit committee members to have an extensive and current understanding of FASB, SEC, IRS, EPA, and other laws and regulations.

Further, these audit committee members are expected to evaluate whether the resources of the business have been effectively employed in pursuit of established goals and objectives. This requires the independent audit committee member to stay current with the activities and plans of the company.

Taken together, these responsibilities of the independent audit committee member require skills most commonly found in individuals with accounting certifications as a CPA, CMA, or CIA.

Selection of Accounting Irregularity Companies

Following the basic research of Beasley (1996), this study identified a total of 150 publicly traded firms using AAERs to test the hypotheses. Beasley's 1994 dissertation, the basis for the 1996 article, was recognized in 1995 with the "Competitive Manuscript Award" from the American Accounting Association.

The source of selection for companies was based on the publicly available AAERs issued by the SEC that report findings of accounting irregularities. Since 1982, the SEC has published AAERs to provide details of financial reporting enforcement actions (Dechow et al., 1996). Bonner, Palmrose, and Young, 1998, noted that AAERs "are an objective criterion for identifying companies with fraudulent financial reporting" (p. 505). In considering cases that ultimately lead to AAERs, the SEC prefers to initiate winnable cases that result in a registrant's consent agreement and their investigation selection

criteria ranks prospects for the seriousness of the offense, probability of success and deterrence value (Feroz et al., 1991).

Violations of SEC Rule 10(b)-5 and Rule 13(a) indicate intent to mislead, defraud, or manipulate earnings according to the Securities Exchange Act of 1934. AAERs with consent agreements from the respondent corporation and or individuals represent acknowledgment of the violation and acceptance of any penalties. This study was limited to corporate or management violators of Rules 10(b)-5 or 13(a), that is, actions done with intent. If a firm or management respondents were cited in an AAER for violation of either of these SEC rules, and if proxy information was available to identify audit committee members, the firm was included in the sample population. By limiting the sample to willful management violators of reporting standards (rather than including unintentional accounting irregularities), the benefit of having an accounting certified professional as an independent audit committee director could be measured more clearly.

The use of AAERs is consistent with existing research on financial and market effects of AAERs (Feroz et al., 1991), board composition and financial statement fraud (Beasley, 1996), causes and consequences of earnings

manipulation (Dechow et al., 1996), and fraud type and auditor litigation (Bonner et al., 1998).

The study was limited to the evaluation of audit committee directors of the largest 75 misreporting entities in the sample pool for which SEC Form 10-K (Annual Report to the SEC) and Form DEF14A (Proxy Data) for the period cited was available from the SEC Electronic Data Gathering, Analysis, and Retrieval System (Edgar).

Comparison of Cited Firms and Non-Cited Firms

A comparison group of non-cited control firms was created to provide matched pairs based on the criteria used in the Beasley (1996) and Dechow, et al. (1996) studies, including stock exchange, firm capitalization, primary industry SIC code, and the year of the cited AAER violation. Cited and non-cited firms (for which proxy information was available) were matched for the same calendar year. The common stock of the 75 cited sample firms were matched with non-cited firms of similar capitalization listed on the same stock exchange that also match or overlap industry SIC codes. Specifically, firm matches for the same period were based on the following:

1. Common stock exchange listings (NYSE, NASDAQ,

AMEX) were matched.

2. Firm four-digit SIC codes (from Filing 10-K) of the violator were matched with non-cited violators using the Big Business Directory and/or Standard & Poor's Register. If no match of the four-digit code could be identified, firms were matched using three-digit, or progressively, a two-digit SIC code level.
3. Firm capitalization as reported in SEC Filing 10-K was matched using six categories: up to \$250 million (M), \$250(M)-\$500(M), \$500(M)-\$1 billion (B), \$1(B)-\$2.5(B), \$2.5(B)-\$5(B), and greater than \$5(B).

The largest 15 violating companies and their non-cited matches using the above criteria are shown in Table 1. The complete list of 75 cited companies and their non-cited matches using the criteria and also indicating the AAER of the violating company, the violation year(s), and the capitalization category for the firm is shown in Appendix C.

Of the 15 violating companies presented in Table 1, the 13 largest were listed on the NYSE and next two were listed on AMEX and NASD respectively. Historically, most of the corporations with the largest market capitalizations

were found on the NYSE. Most of the 15 represent "traditional" standard industrial classification businesses: 6 are in manufacturing categories (2 in chemical and allied products, and 1 each in electrical housewares, communication equipment, semiconductors, and measurement analyzing control instruments); 3 are in service businesses (1 each in financial services, hotels and motels, and prepackaged software); 2 are in transportation and public utilities (1 each in communications and sanitary services); 2 are in retail trade (1 each in drug and variety stores); and 1 is in wholesale trade of drugs and sundries. Only 1 would qualify as a "new economy" company as an internet service provider.

Of the largest 15 matched companies shown in Table 1, the best overall comparison based on overlap SIC code and capitalization match is Woolworth and Dollar General, as both companies primarily operate rural/suburban low to mid-priced retail stores. The worst overall comparison of the companies in Table 1 is that of Cendant and Loews as a result of the large differential in capitalization. Cendant's capital structure and diversity of their hotel and service industry holdings so far exceeded all others that Loews was the best match available.

Table 1

Comparison of Largest 15 Matched Companies

	Violator	Non Violator
1	Cendant	Loews
Stock Exchange	NYSE	NYSE
Overlap SIC Code	7011	7011
Capitalization(\$M)	\$30,448	\$8,598
2	Waste Management	Browning-Ferris
Stock Exchange	NYSE	NYSE
Overlap SIC Code	4953	4953
Capitalization(\$M)	\$27,438	\$6,700
3	McKesson/HBOC	Cardinal Health
Stock Exchange	NYSE	NYSE
Overlap SIC Code	5122	5122
Capitalization(\$M)	\$8,335	\$7,060
4	Boston Scientific	Medtronic
Stock Exchange	NYSE	NYSE
Overlap SIC Code	3841	3841
Capitalization(\$M)	\$7,100	\$20,800
5	America Online	EDS
Stock Exchange	NYSE	NYSE
Overlap SIC Code	7370	7370
Capitalization(\$M)	\$5,850	\$22,700
6	W. R. Grace	Westvaco
Stock Exchange	NYSE	NYSE
Overlap SIC Code	2800	2800
Capitalization(\$M)	\$4,300	\$2,799
7	Bausch & Lomb	Hercules
Stock Exchange	NYSE	NYSE
Overlap SIC Code	2800	2800
Capitalization(\$M)	\$3,056	\$4,600

Table 1 continued

	Violator	Non Violator
8	Woolworth	Dollar General
Stock Exchange	NYSE	NYSE
Overlap SIC Code	5331	5331
Capitalization(\$M)	\$3,055	\$2,724
9	Sunbeam	Black & Decker
Stock Exchange	NYSE	NYSE
Overlap SIC Code	3634	3634
Capitalization(\$M)	\$2,801	\$4,561
10	Sensormatic	Stanley Works
Stock Exchange	NYSE	NYSE
Overlap SIC Code	3669	3669
Capitalization(\$M)	\$2,425	\$1,750
11	PerryDrug/Rite Aid	Revco
Stock Exchange	NYSE	NYSE
Overlap SIC Code	5912	5912
Capitalization(\$M)	\$2,289	\$1,247
12	Advanced Micro	Analog Devices
Stock Exchange	NYSE	NYSE
Overlap SIC Code	3674	3674
Capitalization(\$M)	\$1,980	\$1,695
13	Mercury Finance	Beneficial
Stock Exchange	NYSE	NYSE
Overlap SIC Code	6141	6141
Capitalization(\$M)	\$1,924	\$2,000
14	Infomix	Symantec
Stock Exchange	AMEX	AMEX
Overlap SIC Code	7372	7372
Capitalization(\$M)	\$1,297	\$1,047
15	IDB Communications	Turner Broadcasting
Stock Exchange	NASD	NASD
Overlap SIC Code	4800	4800
Capitalization(\$M)	\$1,249	\$1,246

Research Design

This study used a test of independent frequencies because the dependent variable, the AAER citation of a Rule 10(b)-5 or Rule 13(a) violation is dichotomous (a company has a violation/does not have a violation; Beasley, 1996). As nominal, non-parametric data were used, chi-square tests were used to determine if extraneous variables influenced the outcome and bivariate tests were used for differences between the groups. The units of analysis for the study were audit committee directors of the 75 violating and 75 non-violating companies. The variables are categorical and were tested using "two by two" cross-tabulation for the relationships between categorical variables. Cross-tabulation is the most commonly used measure of association between variables (Alreck & Settle, 1985).

Data Collection for Sample

The study used a choice-based sample of the 75 largest capitalized firms cited by the SEC for accounting irregularities or misreporting as reported in AAER's Nos. 743-1397. The choice-based sample was based on the 654 AAERs issued for the five-plus year period between January 1, 1996, and May 16, 2001. Of these, 67% included

violations of regulations 10(b)-5 and/or 13(a) by firms and their management. Fewer than 654 total firms were cited as some firms and management were cited in multiple AAERs. The remaining balance of AAERs analyzed for the period represent violations of other regulations by corporations, auditors, or brokerage firms. AAERs included in the research represent violations for fraud (which by definition is always intentional). Other AAER reporting and disclosure issues may or may not be intentional.

A choice-based sample (rather than a random sample) was used because the population of reported or cited firms was less than 50% of all publicly traded corporations (Beasley, 1996). This study used a "one-to-one matching process" in which half of the corporations were cited by the SEC with a violation of specified accounting irregularities and the other half have no cited accounting irregularities (Beasley, 1996, p. 422).

Measurement

Independent Variables

The independent variables measured dealt with the classification of audit committee members' levels of financial literacy. Multiple resources were used to

research the proper categorization of each of the 449 audit committee directors in the choice-based sample (see subsequent section for Reliability).

1. Audit Committee Members Having BRC Financial Literacy

The first independent variable measured was the number of audit committee members, whether "inside" or independent, having "Financial Literacy" as defined by the Blue Ribbon Panel.

2. Audit Committee Members Having Strict Financial Literacy

The second independent variable measured was the number of audit committee members, whether "inside" or independent, having "Strict Financial Literacy" as defined by the director having experience as a CFO or Controller and/or accounting certification.

3. Independent Audit Committee Members Having Financial Literacy

The third independent variable measured was the number of independent audit committee members having "Financial Literacy" as defined by the Blue Ribbon Panel.

4. Independent Audit Committee Members Having Strict Financial Literacy

The fourth independent variable measured was the number of independent audit committee members having "Strict Financial Literacy" as defined by the director

having experience as a CFO and/or accounting certification.

5. Independent Audit Committee Members Having Accounting Certifications

The fifth independent variable measured was the number of independent audit committee members having accounting certifications as CPAs, CMAs, or CIAs.

Reliability and Validity

The reliability and validity of using AAERs to identify violating companies has been shown in the research of Feroz, et al. (1991), Beasley (1996), Dechow, et al. (1996), and Bonner, et al. (1998).

To enhance reliability of financial literacy and/or certification of director classification levels, multiple sources of biographical information plus reviews by the accounting certifying organizations were utilized. The initial resources used were SEC Form 10-K Filings and DEFA14A Proxy Statements, identifying audit committee directors and providing biographical information about their business experience, background, and family relationships among directors and/or with management. The following additional biographical sources were referenced to corroborate independence, BRC, and stricter financial

literacy classification levels: Standard and Poor's Register of Corporations, Directors and Executives; Marquis Who's Who in America; Corporate Yellow Book, Who's Who at the Leading U.S. Companies; Lexis-Nexis Biographical Information; and The Corporate Library - Director Profiles. Determination of accounting certifications was provided by the certifying organizations. Personnel at each of the accounting certifying organizations (the AICPA, ICMA, and IIA) were provided with the list of the 449 directors for matches against their certified membership rosters and the organizations then provided the lists of accounting certified directors (see appendix). Reliability was tested by a research colleague performing a random sample test on classifications of audit committee directors for 20 of the 150 companies (10 violating and 10 non-cited firms). This retest sample represented 13.3% of both violating and non-cited firms, 13.6% (29/214) of violating directors, and 13.2% (31/235) of non-cited company directors. Classifications for BRC literacy, strict financial literacy, certification, and independence of all 60 directors in the sample were found to be the same as used in the research (see Appendix J).

Reliability analysis of the variables was performed to assess the independence of the independent variables

(BRC literacy, strict financial literacy, independent audit committee members having BRC financial literacy, independent audit committee members having strict financial literacy, and independent audit committee members having accounting certifications). The first two hypotheses, which included the 449 cases of both independent and not independent directors, reflect an alpha coefficient of .28, which is low. For hypotheses three through five, which excluded not independent directors, the results of the 400 cases show an alpha coefficient of .39, which is also low. The low alphas mean that the dichotomous variables are relatively independent measures and accordingly, this study used these variables to predict violations of SEC reporting.

Data Analysis

The nonparametric measurement of this study involved assignment of observations to different categories in a set of well-defined, mutually exclusive categories (Williams, 1992, p.117). Only corporations for which data were available were included in the choice-based sample. A cross-tabulation and chi-square analysis was chosen as the statistical model best suited for comparing the categories

in the hypotheses. The contingency table results in a two-by-two table because the dependent variable consists of violators and non-violators. The independent variables also consist of dichotomous categories. Audit committee directors can be categorized as financially literate, having experience as a chief financial officer, or holding an accounting certification or not.

The level of significance for the chi-square test was established at .05 with a confidence level of 95%.

Development of Hypotheses

This study examined five hypotheses about audit committee composition and the occurrence of improper financial reporting.

Financially Literate Audit Committee Members

Audit committee members who meet the definition of financial literacy established by the Blue Ribbon Committee should have "the ability to read and understand fundamental financial statements, including a company's balance sheet, income statement and cash flow statement" (Blue Ribbon Committee, 1999, p.26). Such basic skills are the objectives of introductory financial accounting courses and do not provide the technical competencies to recognize some

of the irregular accounting practices about which the SEC expressed concerns.

Categorization for financial literacy of audit committee members was based on proxy statement information applied to the Blue Ribbon Committee's published definition of financial literacy was used to categorize directors'

past employment experience in finance or accounting, requisite professional certification in accounting, or any other comparable experience or background which results in the individual's financial sophistication, including being or having been a CEO or other senior officer with financial oversight responsibilities (Blue Ribbon Committee, 1999, p.25).

This led to the following research hypothesis:

H1: The number of audit committee members meeting the Blue Ribbon Committee's (BRC) definition of having accounting and/or related financial management expertise is lower for firms cited for accounting irregularities compared to SEC complying firms.

The corresponding null hypothesis states:

H01: The number of audit committee members meeting the

BRC's definition of having accounting and/or related financial management expertise is not lower for firms cited for accounting irregularities compared to SEC complying firms.

Stricter Standard of Financially Literate Audit Committee Members

The previous hypothesis recognizes financial literacy for those who are or were previously "a CEO or other senior officer with financial oversight responsibilities" (Blue Ribbon Committee, 1999, p.25). The second hypothesis applies a stricter definition of financial literacy, which requires experience as a Chief Financial Officer (CFO) or Controller and/or accounting certification rather than CEO experience. Categorization of directors meeting the stricter definition used the multiple resources listed in Measurement-Independent Variables and the directors holding accounting certifications as determined by the AICPA, ICMA and IIA.

This led to the second research hypothesis:

H2: The number of audit committee members meeting the

stricter standard of accounting and/or related financial management expertise is lower for firms cited for accounting irregularities compared to SEC complying firms.

The corresponding null hypothesis states:

H02: The number of audit committee members meeting the stricter standard of accounting and/or related financial management expertise is not lower for firms cited for accounting irregularities compared to SEC complying firms.

Independent, Financially Literate Audit Committee Members

The third hypothesis examined a subset of the first hypothesis by introducing an "independence" variable. Audit committee members who are independent directors are agents of shareholders with fiduciary responsibilities for evaluating the quality and integrity of management reporting, monitoring the internal control process and providing reasonable assurance that the company is in compliance with laws and regulations. Determination of the independence of audit committee members was based on proxy statement information regarding employee or non-employee

status and disclosures of any family relationships with management, the director's status with the company as a vendor or contractor, or any other relationship between the director and management which might impair the director's capacity as an agent of the shareholders.

This led to the third research hypothesis:

H3: The number of independent audit committee members meeting the BRC definition of accounting and/or related financial management expertise is lower for firms cited for accounting irregularities compared to firms with a higher number of independent audit committee members.

The corresponding null hypothesis states:

H03: The number of independent audit committee members meeting the BRC definition of accounting and/or related financial management expertise is not lower for firms cited for accounting irregularities compared to firms with a higher number of independent audit committee members.

Independent, Strictly Defined Financially Literate Audit

Committee Members

The fourth hypothesis examined a subset of the second hypothesis by introducing an "independence" variable. Audit committee members who are independent directors are agents of shareholders with fiduciary responsibilities for evaluating the quality and integrity of management reporting, monitoring the internal control process and providing reasonable assurance that the company is in compliance with laws and regulations.

This led to the fourth research hypothesis:

H4: The number of independent audit committee members meeting the stricter definition of accounting and/or related financial management expertise is lower for firms cited for accounting irregularities compared to firms with a higher number of independent audit committee members.

The corresponding null hypothesis states:

H04: The number of independent audit committee members meeting the stricter definition of accounting and/or related financial management expertise is not lower for firms cited for accounting irregularities compared to firms with a higher number of independent audit committee members.

Accounting Certified, Independent Audit Committee Members

The fifth hypothesis examined a subset of the fourth hypothesis by introducing a variable of accounting certification. Audit committee members who are both accounting certified and independent, represent important attributes for audit committee membership (Blue Ribbon Committee, 1999). Their special expertise and objective evaluation of management should produce a lower incidence of financial irregularities (Blue Ribbon Committee, 1999). Categorization as accounting certified was based on responses from the AICPA, ICMA and IIA.

This led to the fifth research hypothesis:

H5: The number of independent audit committee members who hold professional accounting certifications (CPA, CMA, or CIA) is lower for firms cited for accounting irregularities compared to firms with a higher number of independent audit committee members who do not hold professional accounting certifications.

The corresponding null hypothesis states:

H05: The number of independent audit committee members who hold professional accounting certifications (CPA, CMA, or CIA) is not lower for firms cited for accounting irregularities compared to firms with a higher number of independent audit committee members who do not hold

professional accounting certifications.

CHAPTER IV

ANALYSIS AND PRESENTATION OF FINDINGS

Introduction

This research was conducted to determine whether the presence of independent audit committee members with progressively higher levels of financial literacy and/or accounting certification reduces the incidence of AAER 10(b)-5 or 13(a) violations. Five independent hypotheses were formulated to test the tenants of the Blue Ribbon Committee, that is,

... members of the audit committee must have the ability to ask probing questions about the corporation's financial risks and accounting ... and the {sic}(BRC) Committee recognizes that the director's ability to ask and intelligently evaluate the answers to such questions ... hinges on ... a certain basic "financial literacy." (Blue Ribbon Committee, 1999, p. 25-26)

The chapter continues with a discussion of the sample,

followed by the results of each of the five research hypotheses using chi-square analysis.

The Sample

The population for the sample consisted of publicly traded corporations cited by the SEC during the period starting in January 1996 through May 16, 2001, as shown in Appendix A. The cut-off of May 16, 2001, was used to include the most recent AAERs as the research was initiated. For the contingency that full SEC data might not be available for all the firms, Appendix B includes 84 companies with the largest market capitalization. The 75 largest market capitalized violators of 10(b)-5 or 13(a) regulations for which SEC Edgar data were available were identified. As shown in detail in Appendix C and summarized in Table 1, the violating corporations were then matched in a choice-based sample with nonviolating companies traded on the same stock exchange, in the same or overlapping SIC codes, of a similar market capitalization, and for which the necessary Edgar data were available.

TABLE 2

	<u>75</u> <u>Violating</u> <u>Companies</u>	<u>75</u> <u>Non Violating</u> <u>Companies</u>
Average Market Capitalization	\$1.53 Billion	\$1.35 Billion
<u>Audit Committee Directors:</u>		
Not Independent	25	24
Independent	189	211
Total	214	235
	<u>Choice-Matched Sample Pairs</u>	
	<u>Violating</u> <u>Companies</u>	<u>Non Violating</u> <u>Companies</u>
<u>Listing Stock Exchange:</u>		
NASD	37	37
NYSE	30	30
AMEX	8	8
Total Companies	75	75
<u>SIC Major Industrial Groups:</u>		
Manufacturing	38	38
Services	20	20
Retail Trade	7	7
Transportation, Communication, Electric, Gas, and Sanitary Services	4	4
Finance, Insurance, and Real Estate	3	3
Wholesale Trade	2	2
Construction	1	1
Total Companies	75	75

Of the 25 violating company directors lacking independence, 7 hold accounting certifications. For the non violating companies 2 of the 24 "not independent" directors are accounting certified. The "not independent" directors were excluded from consideration in research

hypotheses H3 through H5.

As shown in Appendix D, audit committee members were then classified for independence, BRC financial literacy, stricter financial literacy and/or accounting certification, or only accounting certification using the multiple sources of information discussed in the previous chapter. There are 214 audit committee directors of violating companies, of which 25 were classified as "not independent" as a result of their employment with the company or other disclosed information. For the non-violating companies, there are 235 audit committee directors of which 24 were classified as "not independent." Of the 25 violating company directors lacking independence, 7 hold accounting certifications. For the nonviolating companies 2 of the 24 "not independent" directors are accounting certified. The "not independent" directors were excluded from consideration in research hypotheses H3 through H5. An alphabetical list of all audit committee directors for the violators and non-violators is included in Appendix E.

Somewhat unexpectedly, 6 of the directors of the 150 companies held a total of 13 audit committee membership positions. There were 2 noncertified directors, each serving 2 non-violating companies and 2 other noncertified

directors, each serving both a violating and a non-violating company. There was also a non-certified director with 3 audit committee directorships on the list, serving 1 violating company and 2 non-violators. The only accounting-certified director on the list with multiple representation on the list served both a violating and a non-violating company.

The Findings

Hypothesis 1

Research hypothesis H1 theorized that audit committee members, whether independent or inside, of non-violating corporations would reflect a higher number of BRC defined financial literacy (H1) than in the violating corporations. The results shown in Table 2 indicate that research hypothesis H1 is rejected and the null hypothesis is not rejected, as the chi-square statistics indicate no significant differences between violators and non-violators:

Table 3

H1: Audit Committee Members with BRC Financial Literacy

Class	Violators		Non Violators		Total	
	Number	%	Number	%	Number	%
Yes BRC	205	95.8%	229	97.4%	434	96.7%
Not BRC	9	4.2%	6	2.6%	15	3.3%
Column Total	214	47.7%	235	52.3%	449	100.0%

Chi-square = .947, DF = 1, p = .330

Minimum expected frequency = 7.149

Hypothesis 2

Research hypothesis H2 theorized that audit committee members, whether independent or inside, of non-violating corporations would reflect a higher number of stricter financial literacy (H2) than in the violating corporations. The results shown in Table 3 indicate that research hypothesis H2 is rejected and the null hypothesis is not rejected as the chi-square statistics indicate no significant differences between violators and non-violators:

Table 4

H2: Audit Committee Members with Stricter Financial Literacy and/or Accounting Certification

Class	Violators		Non Violators		Total	
	Number	%	Number	%	Number	%
Yes Stricter Literacy	51	23.8%	58	24.7%	109	24.3%
Not Stricter Literacy	163	4.2%	177	75.3%	340	3.3%
Column Total	214	47.7%	235	52.3%	449	100.0%

Chi-square = .044, DF = 1, p = .834

Minimum expected frequency = 51.951

Hypothesis 3

Research hypothesis H3 theorized that introducing an independence variable to the directors would reflect a higher number of independent, non-violating audit committee directors with BRC defined literacy (H3) than in violating companies. As shown in Table 4, the results indicate that research hypothesis H3 is also rejected and the null hypothesis is not rejected as again, the chi-square statistics indicate no significant differences between violators and non-violators:

Table 5

H3: Independent Audit Committee Members with BRC Financial Literacy

Class	Independent Violators		Independent Non Violators		Total Independent	
	Number	%	Number	%	Number	%
Yes BRC Literate	180	46.8%	205	53.2%	385	96.3%
Not BRC Literate	9	4.8%	6	2.8%	15	3.7%
Column Total	189	47.3%	211	52.7%	400	100.0%

Chi-square = 1.016, DF = 1, p = .313

Minimum expected frequency = 7.088

Hypothesis 4

Research hypothesis H4 theorized that introducing an independence variable to the directors would reflect a higher number of independent, non-violating audit committee directors with stricter financial literacy (H4) than in violating companies. As shown in Table 5, the results indicate that research hypothesis H4 is also rejected and the null hypothesis is not rejected as again, the chi-square statistics indicate no significant differences

between violators and non-violators:

Table 6

H4: Independent Audit Committee Members with Strict Financial Literacy

Class	Independent Violators		Independent Non Violators		Total Independent	
	Number	%	Number	%	Number	%
Yes Strict Literacy	43	47.8%	47	52.2%	90	22.5%
Not Strict Literacy	146	47.1%	164	52.9	310	77.5%
Column Total	189	47.3%	211	52.7%	400	100.0%

Chi-square = .013, DF = 1, p = .909

Minimum expected frequency = 42.525

Hypothesis 5

Research hypothesis H5 theorized that defining financial literacy as only those independent audit committee directors holding accounting certifications as CPAs (See Appendix F), CIAs (see Appendix G), or CMAs (see Appendix H) would reflect a higher number of independent non-violating audit committee directors with accounting certifications than with independent violating audit committee directors. Accounting-certified audit committee

directors represented 58 of the 400 independent audit committee directors, as shown in Appendix I. The results indicate that research hypothesis H5 is rejected and the null hypothesis is not rejected, as the chi-square statistics indicate no significant differences between violators and non-violators.

Table 7

H5: Independent Audit Committee Members with Accounting Certification

Class	Independent Violators		Independent Non Violators		Total Independent	
	Number	%	Number	%	Number	%
Yes Certified	27	46.6%	31	53.4%	58	14.5%
Not Certified	162	47.4%	180	52.6%	342	85.5%
Column Total	189	47.3%	211	52.7%	400	100.0%

Chi-square = .013, DF = 1, p = .908

Minimum expected frequency = 27.405

The research hypotheses are not significant, as all tests reported small chi-square values indicating no differences between violating and non-violating companies. Also, the bivariate tables of percentages indicate the

variables are not related to one another, as the row percentages for the violators and non-violators are nearly the same as the column totals at the bottom of the table.

In all cases, the minimum expected cell frequency was manually verified and all are greater than the five necessary for the chi-square statistic to be valid.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

This research was performed to assess the theory that the presence of independent audit committee directors with accounting certification reduces the incidence of management irregularities or fraud. The literature suggests that independent accounting-certified audit committee directors have the accounting and auditing knowledge, independent professionalism, and ethics to ask and evaluate difficult questions of management that will reduce management misreporting (Blue Ribbon Committee, 1999). The results of this study do not support that theory.

All Directors BRC and Stricter Literacy

Analyzing all 449 audit committee directors in the study, whether independent or not, showed in hypotheses H1 and H2 that no significant differences exist in either BRC financial literacy or the stricter definition of financial literacy between violating and non-violating companies.

Hypothesis H1 considered only the basic BRC literacy of audit committee directors, regardless of independence, and its implications on reducing violations of SEC reporting requirements. Contrary to the expectations of the Blue Ribbon Committee, basic financial literacy ("the ability to read and understand fundamental financial statements," Blue Ribbon Committee, 1999, p. 26) of audit committee directors did not vary significantly between violators and non-violators. Of the violating companies' audit committee members, only 9 of 214 members (4.2%) did not meet the "financial literacy" criteria set by the BRC. Non-violating audit committee members represented 6 of 235 (2.6%) not meeting the financial literacy criteria, an insignificant difference between the two groups. The findings of this research show that the basic financial literacy of audit committee members will not reduce the incidence of SEC violations, as nearly 97% of the sample of both violators and non-violators already met the BRC criteria before the establishment of the BRC. The BRC

criteria are so basic that essentially any person with any experience in a business environment would qualify as BRC literate. Carcello, Hermanson, and Neal (2002) note that according to the BRC definition of expertise, "this would classify most senior-level operating executives as financial experts" (p. 298).

Few CEOs of major corporations would consider themselves as "financial experts." The complexity of accounting statements and auditing standards issued by the FASB and AICPA respectively, are so numerous that it is difficult for a full-time CFO or auditor to stay current on current pronouncements. To expect a non-accountant CEO to be a financial expert in these aspects of a corporation for which they serve as an audit committee director is not realistic.

Competitive considerations preclude CEOs from serving as directors of firms in the same industry where the CEO has management expertise. Auditing pronouncements emphasize the importance for auditors "to understand the client's business and industry when performing a financial-statement audit" (Bell, Marrs, Solomon, & Thomas, 1997, p.1). Expecting a CEO from a different industry to have an in-depth understanding of financial and auditing statements and standards for another industry requires more

"expertise" than non-employee CEO directors have. It appears that the presence of many CEO/senior-level non-employee directors is more for the "star power" that they bring to board than their ability or commitment to serve as a hard-working agent for the shareholders of the corporation. William Donaldson, new SEC Chairman, notes that because of higher expectations for directors, "not every company can have a CEO on its board" (Burns, 2003, p. R7). There is disagreement among board chairmen as to the role directors should assume (Hymowitz, 2003). While some prefer directors who are not engaged in the details of the business, who will act as "checks and balances," others recognize that in today's environment, "now boards also need individuals who can roll up their sleeves and get into detail much more than they used to ..." (Hymowitz, 2003, pp. R1, R4).

Hypothesis H2 considered a stricter definition of financial literacy, also regardless of independence. This definition requires experience as a Chief Financial Officer or Controller and/or accounting certification of audit committee directors and considered the impact of such persons on reducing violations of SEC reporting requirements. McMullen and Raghunadan (1996, p. 80) noted that "expertise in accounting, internal controls and

auditing" are the cornerstone abilities for audit committee effectiveness. They suggested that CFO or Controller experience, or accounting certification of members on an audit committee, would enhance the accounting, auditing, and financial reporting awareness of the committee. This expectation is consistent with the writings of Bean (1999, p. 47) that "at many companies audit committee members may not have the expertise in matters of internal control that CPAs do, and some people serving on audit committees have very little accounting or financial background at all." Contrary to these expectations, this research found that experience of audit committee directors as a CFO or Controller and/or with accounting certification, did not vary significantly between violators and non-violators.

This result may relate to "a reluctance among directors everywhere to upset the collegiality of the boardroom" (Hymowitz, 2003, p. R4). Heavy reliance on outside directors who also serve as CFOs or are accounting-certified executives in other corporations may carry unrealistic expectations. A survey by the National Association of Directors found that for 1999 the typical director spent an average of 125 hours annually on board-related work (Hymowitz, 2003). This is insufficient time for directors to absorb, analyze, and question the provided

financial materials, which may be three inches thick. Many directors spend their commute time to the meetings reading the materials provided by the company.

BRC and Stricter Literacy of Independent Directors

Independence of the audit committee members is regarded as an essential qualification for a director representing the shareholders. Menon and Williams (1994) noted that audit committees that include inside directors lack objectivity, and also noted an SEC statement that inclusion of inside directors on the audit committee might be worse than no audit committee since it could mislead shareholders by giving the appearance of effective monitoring of management. Therefore, hypotheses H3 and H4 considered the effect of only independent audit committee directors with BRC financial literacy and stricter financial literacy. When limited to the 400 independent directors, hypotheses H3 and H4 showed no significant differences between audit committee directors of violating and non-violating companies. Hypotheses H3 and H4 of this study indicate that independent audit committee directors with financial literacy (even as extensive as experience as a CFO or Controller) have not significantly demonstrated an

ability or perhaps a willingness to detect and prevent issues of irregular reporting as cited by 10(b)-5 and 13(a) violations.

In the case of BRC basic financial literacy (Hypothesis H3), credited to those audit committee members who are or have "been a CEO or other senior officer with financial oversight responsibilities" (Blue Ribbon Committee, 1999, p.25), Verschoor (1993) does not recommend other CEOs for audit committee assignments. His research raised the question whether a person whose primary obligation (and source of income) are derived from duties as a board chair or Chief Executive Officer, has the necessary time and energy to properly perform the duties of audit committee chair for another company (Verschoor, 1993). With over 95% of both the independent violators and non-violators meeting the BRC standard of financial literacy, Verschoor's research raises valid questions about the BRC assumption that such "expertise" will result in better oversight of corporate accounting and financial controls and reporting (Blue Ribbon Committee, 1999).

Consistent with the logic of even stricter financial literacy, executive search firms are seeing an increasing demand for chief financial officers to serve as independent directors of corporate boards because of their ability to

understand the bigger picture as well as their contributions on audit committees (McLean, 1998). In the case of stricter financial literacy (Hypothesis H4) that is credited to those audit committee members who are or have experience as a Chief Financial Officer or Controller and/or accounting certification, both independent violators and non-violators represented between 22% and 23% of audit committee members. While this study reports that the presence of financial experienced or accounting-certified audit committee members has no significant impact on the financial irregularities, the opposite opinion (and the basis of the research hypothesis) is still common, as noted in a recent article stating "firms with financially savvy boards are less likely to restate reports than those with boards that lack accounting and finance expertise" (Burns, 2003, p. R7).

Accounting Certified, Independent Audit Committee Members

Before this research, the general assumption was that the financial expertise of professional accounting-certified independent audit committee members would reduce the incidence of reporting irregularities. Backgrounds recommended for independent audit committee directors by

Bull and Sharp (1989) include retired CPA firm partners, chief financial officers or chief internal auditors of other corporations, and academics with appropriate credentials and skills. McMullen and Raghunadan stated that while "having a CPA on the committee cannot guarantee there will be no financial reporting problems, taking these minimum steps should improve financial reporting quality and help avoid potential trouble in the future" (1996, p. 81).

The 1999 recommendations of the Blue Ribbon Committee, and the January 2003 SEC Release No. 33-8177 in response to the Sarbanes-Oxley Act of 2002, both focus on the premise that independent financial expertise on audit committees will reduce the opportunities for future failures like those of Enron, WorldCom, Tyco, and others. Specifically, the new SEC regulation regarding disclosure of independence and financial expertise of audit committee members is incorporated in Release No. 33-8177. This SEC pronouncement states that "the rules require a company to disclose whether the person or persons identified as the audit committee financial expert is independent of management" (2003, SEC Release No. 33-8177, II A.3). The release also defines an audit committee financial expert as a person who has the following attributes:

1. An understanding of generally accepted accounting principles and financial statements;
2. The ability to assess the general application of such principles in connection with the accounting for estimates, accruals and reserves;
3. Experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the registrant's financial statements, or experience actively supervising one or more persons engaged in such activities;
4. An understanding of internal controls and procedures for financial reporting; and
5. An understanding of audit committee functions.
6. Under the final rules, a person must have acquired such attributes through any one or more of the following:
 - i. Education and experience as a principal financial officer, principal accounting officer, controller, public accountant or auditor or experience in one or more positions that involve the performance of

- similar functions;
- ii. Experience actively supervising a principal financial officer, principal accounting officer, controller, public accountant, auditor or person performing similar functions;
 - iii. Experience overseeing or assessing the performance of companies or public accountants with respect to the preparation, auditing, or evaluation of financial statements; or
 - iv. Other relevant experience. (2003, SEC Release No. 33-8177, II A.4.c)

The SEC Release is very specific in requiring the financial expert to have personally prepared or supervised the preparation of audited financial statements that are "generally comparable to the breadth and complexity of issues... (of) the registrant's financial statements" (2003, SEC Release No. 33-8177, II A.4.c). According to John Morse, CFO of the *Washington Post*, "There are very few people on boards today that meet this narrow definition" (Bryan-Low, 2002, p. C1). A survey by the Directorship Search Group "said their boards would be more effective if

they included more professional directors and large shareholders" (Hymowitz, 2003, p. R4). The survey further stated that "investors more than directors believe more reforms are necessary, but both groups agree that CEO resistance and lack of director motivation are the biggest impediments to change" (Hymowitz, 2003, p. R4). The implication is that independent directors who are better qualified to deal with financial matters and who have a sincere interest in representing the shareholders would improve financial reporting.

Hypothesis H5 considered the impact of the most stringent criteria, until SEC Release 33-8177, for evaluating effectiveness of independent audit committee directors by measuring whether the presence of an accounting-certified (CPA, CMA, or CIA) audit committee director would result in fewer reporting irregularities. The results of this research reflect no significant difference as accounting-certified audit committee directors represent 14.3% of violators and 14.7% of non-violators. The expectation that independent, accounting-certified audit committee members would result in fewer violations of the SEC financial-reporting rules was based on the premise that such individuals would know what questions to ask, understand the consequences of the

alternatives, and act in accordance with their professional code of ethics. The results of the research raise serious questions about multiple aspects of professionally certified audit committee directors including:

1. Is the director truly independent of the corporation?
2. Is the director current on the details of auditing standards and industry standards under GAAP?
3. Is the director relying too much on expectations that if there were accounting practices or "materiality problems," the CFO, the internal audit director, or the external auditor would have identified them and brought them to the attention of the audit committee?

A possible answer to the above question about the directors' independence may relate to the high incidence of board members being selected by the CEO they are supposed to oversee, complaints that shareholders have too little opportunity to nominate directors, and the rarity of independent director meetings without the presence of management (Burns, 2003). The question about directors knowing current details of auditing standards and industry standards under GAAP can be related to Korn/Ferry

information that in searches for audit committee directors before the financial disasters of 2001-2003, the financial expertise of prospective candidates was only of importance in 10% of the searches (Burns, 2003). Also, before the crisis, only 17% of audit committees met six or more times per year and 50% of audit committee meetings were for an hour or less (Burns, 2003). Finally, while it is probably true that directors rely too much on the CFO, internal audit director, or external auditor, "even the most dedicated board members are unlikely to detect fraud at a company without assistance from accounting experts" (Burns, 2003, p. R6). Audit committee directors need to know enough to ask the right questions and expect accurate and truthful answers from the CFO, internal and external auditors.

Limitations

A major limitation of this study is the absence of SEC accumulated data on audit committee members: the basis and depth of their financial experience, expertise, professional certifications, and relevant continuing professional education; actual number of hours spent on audit committee work annually; the number of meetings of the audit committee with internal and external auditors; and an indication of the audit committee members'

independence not only from management, but also from the external auditors. The lack of specific information on the depth of directors' financial experience probably contributes to the small number of directors who were classified as "not financially literate" using the BRC definition.

The limitations of this study also overlap several of the limitations discussed in the 1996 Beasley study. These include but are not limited to types of fraud included that were limited to SEC 10(b) and/or 13(a) reporting irregularities; ownership levels of audit committee directors in the firm; and potential that choice-based sample non-violators may still be the subject of SEC citation for the period of the study (Beasley, 1996). Also, although directors were classified as independent based on not being an employee of the firm or having a relationship disclosed in Form 10-K or proxy materials, the study was not able to determine the potential range of directors loyalties as "supporters of management" on one extreme to "outside shareholders' agent" on the other (Beasley, 1996).

The overlap limitations with the Beasley study still exist for several reasons. The SEC reporting of fraud is limited to those identified statutory sections, that is, 10(b) and 13(a) covering financial reporting irregularities

and does not include other types of management fraud such as embezzlement, kickbacks, price fixing, misappropriation, and so forth. The total direct and indirect ownership level of an audit committee director is still difficult to determine from 10-K information. AAER citations are generally issued by the SEC not months, but typically years after the financial period reported. As a result, it is possible that a company in the choice-based sample of non-violators may be identified as a violator subsequent to the date of this research for the period used in the study. Total compensation for audit committee directors, including annual base compensation, compensation for committee meetings, value of stock options awarded and exercised, loans granted or guaranteed, and so forth is not disclosed.

One of the limitations of the Beasley study, the potential challenge to validity of the theory that audit committee members do serve as effective management monitors, has been effectively eliminated as a result of recent events. The executive director of the Council of Institutional Investors, Sarah Teslik, recently commented on board selection that "as long as boards are chosen by people they're supposed to oversee, oversight won't happen" (Nasaw, 2003, p. R8).

Untested Data Generated

Several data items generated by the study were not empirically tested but are worthy of disclosure. Of the 75 companies from the choice-based sample of non-violating companies, only 1 company had an audit committee with more than 1 independent accounting certified director. Of the 75 violating companies, 4 companies had more than 1 independent accounting certified audit committee directors, including a corporation where 3 of the 4 audit committee directors were accounting certified. This comparison, like the results of this study, is inconsistent with the study's expectation that more financial expertise on audit committees will reduce the incidence of financial irregularities.

Nonviolating companies had not a single independent audit committee director with multiple accounting certifications, while 3 independent audit committee directors of violating corporations hold more than one of the three certifications being researched. Again, contrary to the expectations of the study, more certifications did not translate into more effective oversight by audit committee directors.

Overall, 30 of the 75 choice-based sample of non-violating companies had at least one independent accounting certified audit committee director while 22 of the 75 violating companies were represented by similarly qualified directors. Lastly, the presence of a higher percentage of accounting-certified directors in violating companies than in non-violators is a result contrary to this study's expectation.

Conclusions

The principal hypothesis of this research—that audit committee financial expertise indicated by professional accounting certification would reduce management misreporting—is consistent with comments from two recent best-selling books. According to Frank Partnoy, author of *Infectious Greed: How Deceit and Risk Corrupted the Financial Markets*, “members of corporate-audit committees often didn’t even know the right question to ask” (2003, p. 217). Similarly, former SEC Chairman Arthur Levitt, author of *Take on the Street*, wrote, “Boards of Directors, especially the audit committees that are supposed to

oversee the auditing process, were either asleep at the wheel or lacked the expertise to challenge the CFO" (2002, p.117).

This study concludes that audit committee effectiveness is not dependent solely on the presence of independent directors with financial literacy, financial expertise, or even accounting certification. An alternative explanation would suggest that additional variables impact the effectiveness or willingness of an independent audit committee to ask and evaluate difficult questions of management that could reduce management misreporting. With the current implementation of financial reporting reforms passed by Congress and others issued as new SEC regulations, now would be a logical time for the accounting certification bodies to consider amending their codes of professional conduct to provide for possible suspension or rescission of an individual's CPA, CMA, or CIA certification if that individual served as an audit committee director during a period for which the SEC issues an AAER finding of violations of 10(b) or 13(a) regulations.

In his book, Levitt provides a governance checklist of variables that may impact the effectiveness or willingness of audit committee directors to ask the tough questions

(2002). The first item on Levitt's checklist is board independence (2002). Levitt cites an example of a technically independent director of Apple Computer. CEO Bill Campbell of Intuit, a former Apple executive, started a software company that he later sold to Apple and meets the independence criteria by not having those Apple ties for more than three previous years (2002). The "in fact" independence of audit committee directors cannot always be measured—directors also may be truly independent of management at the time of their initial election and subsequently lose that "arms length" approach while serving on the board of directors. It is not unusual for directors to become enamored with the prestige of serving on a board, the sometimes lucrative payments for service, the opportunity to work with other directors from a variety of backgrounds, and a growing trust that the management of the corporation would not intentionally engage in any financial misrepresentation.

Portnoy reports that the Enron chair of the audit committee, Robert K. Jaedicke, certainly had the credentials and financial expertise for the position as accounting professor emeritus and former dean of the Stanford Business School (2003). Jaedicke's ability to maintain his independence is brought to question by Portnoy

in noting that he "made nearly \$1 million from Enron stock" (2003, p.305). When testifying before Congress about the Enron audit committee responsibilities he stated: "We do not manage the company. We do not do the auditing. We are not detectives" (Levitt, 2002, p.234). The report of an Enron board special investigative committee was self-indicting, by stating that "the entire board, despite its financial sophistication, had failed in its oversight duties" (Levitt, 2002, p. 233).

All audit committee members including accounting-certified audit committee directors are likely to rely too much on the outside audit firm to be the gatekeepers of accurate financial reporting and the monitoring of circumstances that would induce or permit management to engage in illegal activities. Such an attitude presupposes that it is always someone or some other group's responsibility to monitor the organization and respond accordingly. Levitt suggests that audit committee members who previously worked for the current outside auditor may be less likely to question the auditor because of the "former colleagues" relationship (2002). For the near term, because of recent financial reporting violations, audit committees, and external auditors will likely be intense in

their scrutiny of financial reporting. The question to be answered is how long will it last?

The second of Levitt's governance checklist variables deals with board overcommitment. Audit committee directors who hold full-time positions of responsibility with other organizations or hold multiple directorships on corporate boards, are probably spread too thin to do a thorough review of complex financial data presented for all their fiduciary organizations. In this choice-based sample of 75 violating and 75 non-violating companies, one individual (Gerald Tsai, Jr.) was found serving on the audit committees of 3 of the 150 total companies (one violator, Perry Drug/Rite Aid, and two non-violators, Triarc Companies and Sequa Corp.). Levitt cites several examples of former politicians or politically connected individuals with excessive board memberships: Vernon Jordan, 11 boards; George Mitchell, 12 boards; and Jack Kemp, sitting on 21 boards (2002). According to Levitt, "the Council of Institutional Investors recommends 5 boards as the maximum that any one person can serve on properly" (2002, p.229). A survey of the Standard & Poor's 1,500 companies in the first seven months of 2002, found that 32.4% of directors of these companies serve on two or more boards (Plitch, 2003). This is consistent with information from the

Corporate Library, which tracks information on 1,700 large companies in the U.S. and found that 4,722 of the 14,091 or 33.5% of the directors serve on two or more boards (Burns, 2003). The number of boards on which CEOs now serve has dropped from an average of four boards in 1993 to an average of two in 2003 (Hymowitz, 2003).

Another variable of Levitt's governance checklist that impacts audit committee is board compensation (2002). He notes that excessive pay "could signal a fat and complacent board, or, at the other extreme, one that isn't paid enough to take its role seriously" (Levitt, 2002, p.230). Enron's audit committee chair, Robert K. Jaedicke, was paid \$78,750 for his annual board services exclusive of stock compensation (Cowan & Abelson, 2002). The average of board compensation, cash, and stock, for the year 2001 was \$92,452 according to the executive search firm of Spencer Stuart (Levitt, 2002).

Board perks represent another item on Levitt's checklist; specifically he refers to "the culture of seduction" (Levitt, 2002, p.230). Members of Enron's audit committee such as Wendy Gramm and John Mendelsohn benefited from Enron's charitable donations (Partnoy, 2003). Gramm's Washington, D.C. "free market policy group" received \$50,000 from Enron, and Mendelsohn, the University of Texas

Anderson Cancer Center President, was given \$1.6 million for the Center by Enron (Partnoy, 2003). Levitt notes that company contributions to a director's "pet causes," and other perks such as use of company aircraft and board meetings held at exclusive resorts may be useful for enticing the compromise of independence (2002).

Former SEC Chairman Levitt notes that violators weren't just a "case of a few bad apples . . . Blue-chip companies with sterling reputations were manipulating their numbers in ways that were downright misleading" (Levitt, 2002, p. 117). The magnitude of the problem has grown exponentially, according to Levitt, who commented that in 1981 only three companies restated their financial statements, while during the four-year period from 1997-2000, approximately 700 companies were required to restate earnings (Levitt, 2002).

Are the current governance reforms adequate? A McKinsey & Co. survey of directors indicates that while 69% say current reforms have improved governance, 50% say that additional moderate to complete reform is still needed (Hymowitz, 2003). Board involvement has improved, as five years ago 37% of directors described their board engagement level as either passive or limited, while only 8% of current directors describe their board involvement as

passive or limited (Hymowitz, 2003). Constraints on directors are still apparent, as 81% "say the CEO controls and shapes what they learn about the company" and 73% support "more director control over the board's agenda" (Hymowitz, 2003, p. R4). Of the surveyed directors, 86% indicate that compensation plans fueled the recent scandals and 52% still describe compensation as too high or far too high (Hymowitz, 2003).

A guest article by Kerry Sulkowicz in the KPMG Audit Committee Quarterly, Fall 2003, provides an apt description of the responsibilities of audit committees:

Audit committees are like the chaperone on the high school trip: they're supposed to keep an eye on the occasionally unruly kids, but they also know that it's a perennial struggle to get a close enough, real-time view. Neither Sarbanes-Oxley nor any other rule-based approach can guarantee that audit committees will catch every misdeed. (p. 21)

For corporations and audit committees alike, it is imperative to remember that codes of ethics and other governance best practices must not only be in place, they must be followed (Murray, 2003). Unfortunately, even governance experts have high expectations for Sarbanes-

Oxley impacts on financial reporting (Burns, 2003). As hypothesized by this study, these governance experts believe "financially savvy boards are less likely to restate financial reports than those with boards that lack accounting and financial expertise" (Burns, 2003, p. R7). This study sadly found otherwise. In my many years of industrial and public accounting experience, I have concluded that too many "gatekeepers" become reward seekers and thus fail in their fiduciary responsibilities. It's not something that legislation or the Sarbanes-Oxley Act will likely change.

Recommendations for Future Research

Future empirical research should evaluate accounting-certified independent audit committee directors to consider the implications of other variables such as: benefits of external training for audit committee directors on reporting issues; directors' knowledge of SEC rule 10(b)-5 and 13(a) requirements; directors' ability to stay current on the details of the company's accounting policies, procedures, and SEC regulations; number of audit committee meetings and the number of hours spent on analysis of the

company's financial statements and in discussions with management, employees, internal auditing personnel, and the outside auditor; number of boards of publicly traded companies on which each audit committee director serves; and potential measurement of the director's application of professional skepticism. Professional skepticism is defined in the audit sense as remaining "objective and unbiased by not assuming that management is either honest or dishonest" (Messier, 2000, p. 153). The KPMG Audit Committee Institute notes an attribute of effective audit committees is to act as "constructive skeptics" (KPMG, 2003, p. 2). Howard Schilit, Ph.D. and CPA, (2002) has written *Financial Shenanigans: How to Detect Accounting Gimmicks & Fraud in Financial Reports*, which would be useful in educating audit committee members, including those with professional certifications, in the most common schemes used by management to deceive overseers and shareholders.

Research identifying the audit firms associated with financial statements later restated and the publicly disclosed dollar settlements or liabilities assumed by the audit firms would be useful to understanding the market consequences or impacts on auditor's liability insurance and directors and officers insurance. Also, research on the number of firms changing auditors and the impact, if any,

of those transitions on the auditors or the audited business, could support proposals to mandate audit firm and/or audit personnel rotations periodically.

It will also serve future research now that under SEC Release No. 33-8177, effective March 31, 2003, the SEC were to require reporting entities to disclose the levels of financial literacy (including accounting certifications) of all audit committee directors. It would also benefit future research if the accounting certifying organizations were to require disclosure of service as an audit committee director of a publicly traded corporation on their membership renewals and maintain a database of such information.

Appendix A
AAER Worksheet

AAER Worksheet: AAER's No. 743 (Jan. 1, 1996) through
AAER No. 1397 (May 16, 2001)

Y = Yes, violation of SEC Rule 10(b)-5 or 13(a)

N = No

NA = Unused # by SEC

<u>Year</u>	<u>AAER's</u>		<u>Company Name if Yes</u>
1996	743	NA	
	744	Y	Pathe Communications Corp.
	745	Y	Pathe Communications Corp.
	746	Y	Pathe Communications Corp.
	747	Y	American Mobile Systems, Inc.
	748	Y	Datronic Equipment Income Fund
	749	N	
	750	Y	California Micro Devices Corporation
	751	Y	Phalanx Organization, Inc.
	752	Y	American Aircraft Corporation
	753	Y	Tradux Corp.
	754	N	
	755	NA	
	756	N	
	757	Y	California Micro Devices Corporation
	758	Y	Scorpion Technologies, Inc.
	759	N	
	760	Y	American Aircraft Corporation
	761	Y	Phar-Mor, Inc.
	762	Y	Diagnostek, Inc.
	763	Y	Corporate Capital Resources, Inc.
	764	Y	Chambers Development Co.
	765	Y	Corporate Capital Resources, Inc.
	766	Y	Gibson Greetings, Inc.
	767	N	
	768	N	
	769	Y	Everlast Filtration Corp.
	770	Y	Cascade International, Inc.
	771	Y	Gruntal Financial Corp.
	772	Y	The Bennett Funding Group, Inc.
	773	Y	Alias Research, Inc.
	774	Y	Outdoor Sports Headquarters, Inc.
	775	Y	Outdoor Sports Headquarters, Inc.
	776	Y	Kendall Square Research Corp.

777	Y	Kendall Square Research Corp.
778	Y	Sulcus Computer Corp.
779	N	
780	Y	Platinum Software Corporation
781	Y	Platinum Software Corporation
782	N	
783	Y	Everlast Filtration Corp.
784	N	
785	Y	One Financial USA, Inc.
786	Y	Comparator Systems Corporation
787	Y	Platinum Software Corporation
788	Y	Platinum Software Corporation
789	N	
790	Y	College Bound, Inc.
791	Y	Gibson Greetings, Inc.
792	Y	Sani-Tech Industries, Inc.
793	Y	Network Equipment Technologies
794	Y	Information Management Technolog
795	N	
796	Y	Americare International, Inc.
797	NA	
798	N	
799	Y	Milan International , Ltd.
800	Y	International Communications
801	N	
802	NA	
803	Y	Automated Telephone Management
804	Y	Sulcus Computer Corp.
805	Y	The Bennett Funding Group, Inc.
806	Y	Kurzweil Applied Intelligence, Inc.
807	Y	Packaging Plus Services, Inc.
808	N	
809	Y	Balance for Life, Inc.
810	Y	In-Store Advertising, Inc.
811	Y	JWP, Inc.
812	Y	Advanced Medical Products, Inc.
813	N	
814	Y	First Pacific Bancorp
815	Y	Public Funding Portfolios, Inc.
816	Y	Towers Financial Corporation
817	Y	Cypress Bioscience Inc.
818	Y	Eli Buchalter Accountancy Corp.

819	Y	Comparator Systems Corporation
820	N	
821	Y	Wilshire Technologies, Inc.
822	Y	Keith Group of Companies, Inc.
823	Y	Healthcare Services Group, Inc.
824	N	
825	N	
826	Y	Advanced Micro Devices, Inc.
827	NA	
828	N	
829	Y	Ross Cosmetics Distribution Center
830	Y	Eagle Holdings, Inc.
831	N	
832	Y	Net Systems, Inc.
833	Y	3Net Systems, Inc.
834	Y	Bollinger Industries, Inc.
835	N	
836	N	
837	Y	California Micro Devices Corp.
838	NA	
839	Y	Aura Systems, Inc.
840	Y	The AppleTree Companies, Inc.
841	Y	Leona Enterprises, Inc.
842	Y	Healthcare Services Group, Inc.
843	Y	Cambridge Biotech Corp.
844	Y	Pace American Group, Inc.
845	Y	Pace American Group, Inc.
846	Y	Midisoft Corporation
847	Y	Midisoft Corporation
848	Y	Midisoft Corporation
849	N	
850	Y	International Energy Corporation
851	NA	
852	Y	Automated Telephone Management
853	N	
854	Y	Kendall Square Research Corp.
855	Y	Atlantis Group, Inc.
856	N	
857	N	
858	Y	Eagle Holdings, Inc.
859	Y	Montedison
860	Y	The AppleTree Companies, Inc.

	861	N	
	862	Y	Littlefield, Adams & Company
	863	Y	Sky Scientific Inc.
	864	Y	JWP, Inc.
	865	Y	Kurzweil Applied Intelligence, Inc.
	866	Y	The Gitano Group Inc.
1997	867	Y	Standard Oil and Exploration - Del.
	868	N	
	869	Y	Ross Cosmetics Distribution Center
	870	N	
	871	N	
	872	Y	The Simone Group, Inc.
	873	N	
	874	Y	The Gitano Group Inc.
	875	Y	Valley Systems, Inc.
	876	N	
	877	N	
	878	N	
	879	Y	3Net Systems, Inc.
	880	Y	The AppleTree Companies, Inc.
	881	NA	
	882	NA	
	883	Y	Centennial Technologies, Inc.
	884	Y	Midisoft Corporation
	885	Y	Fabri-Centers Of America, Inc.
	886	Y	Fabri-Centers Of America, Inc.
	887	N	
	888	N	
	889	N	
	890	N	
	891	NA	
	892	Y	Sound Advice, Inc.
	893	Y	Synpro Environmental Services, Inc.
	894	Y	Pace American Group, Inc.
	895	Y	Systems of Excellence, Inc.
	896	Y	Systems of Excellence, Inc.
	897	Y	Public Funding Portfolios, Inc.
	898	Y	Octagon, Inc.
	899	NA	
	900	NA	
	901	N	
	902	N	

903	Y	Structural Dynamics Research Corp
904	N	
905	Y	Structural Dynamics Research Corp
906	N	
907	NA	
908	Y	Evergreen Information Technologies
909	Y	Chipwich, Inc.
910	Y	Structural Dynamics Research Corp
911	Y	Structural Dynamics Research Corp
912	NA	
913	Y	Valley Systems, Inc.
914	N	
915	Y	Members Service Corporation
916	NA	
917	Y	Octagon, Inc.
918	Y	Octagon, Inc.
919	Y	Combined Companies Int'l Corp
920	Y	PanWorld Minerals Int'l, Inc.
921	Y	Greenway Environmental Services
922	N	
923	Y	T2 Medical, Inc.
924	Y	Cambridge Biotech Corporation
925	Y	Worldwide Sales at Media Vision
926	N	
927	Y	Financial News Network
928	N	
929	Y	National Partnership Equities, Inc.
930	Y	Spectrum Information Technologies
931	N	
932	N	
933	Y	Ferrofluidics Corporation
934	Y	Ferrofluidics Corporation
935	NA	
936	Y	United Fire Technology, Inc.
937	N	
938	Y	Ponder Industries, Inc.
939	Y	Policy Management Systems Corp.
940	Y	International Nesmont Industrial
941	Y	Midisoft Corporation
942	Y	Sheffield Industries, Inc.
943	Y	Policy Management Systems Corp.
944	Y	Policy Management Systems Corp.

945	Y	Future Healthcare, Inc.
946	Y	Jasmine Ltd.
947	Y	Jasmine Ltd.
948	N	
949	Y	Digitran Systems, Inc.
950	Y	Caraco Pharmaceutical Laboratory
951	N	
952	Y	Paragon Mortgage Corporation
953	Y	Paragon Mortgage Corporation
954	Y	Paragon Mortgage Corporation
955	Y	Ponder Industries, Inc.
956	Y	Scientific Software-Intercomp, Inc.
957	NA	
958	Y	Future Healthcare, Inc.
959	Y	Florida West Airlines, Inc.
960	Y	Digitran Systems, Inc.
961	Y	Century Technologies, Inc.
962	Y	T2 Medical, Inc.
963	Y	Packaging Plus Services, Inc.
964	N	
965	Y	Ferrofluidics Corporation
966	N	
967	Y	International Research and Develop
968	N	
969	N	
970	N	
971	Y	Laser Photonics, Inc.
972	Y	Laser Photonics, Inc.
973	Y	Laser Photonics, Inc.
974	Y	IDB Communications Group, Inc.
975	Y	Pinnacle Micro, Inc.
976	Y	International Research and Develop
977	Y	Pinnacle Micro, Inc.
978	N	
979	N	
980	Y	Sheffield Industries, Inc.
981	Y	Centennial Technologies, Inc.
982	N	
983	N	
984	NA	
985	Y	DeGeorge Financial Corporation
986	NA	

	987	Y	Bausch & Lomb Incorporated
	988	Y	Bausch & Lomb Incorporated
	989	NA	
	990	N	
	991	Y	Ferrofluidics Corporation
	992	Y	Corrpro Companies, Inc.
	993	N	
	994	Y	Porta Systems Corp.
	995	N	
	996	Y	IRG Technologies, Inc.
	997	Y	Presstek, Inc.
	998	N	
	999	Y	Dynamic Healthcare Technologies
	1000	N	
	1001	Y	Presstek, Inc.
	1002	Y	New Jersey Resources Corp.
	1003	Y	New Jersey Resources Corp.
1998	1004	Y	International Communications
	1005	Y	First Capital Holdings Corp.
	1006	Y	Media Vision Technology, Inc.
	1007	N	
	1008	Y	Underwriters Financial Group, Inc.
	1009	Y	Underwriters Financial Group, Inc.
	1010	N	
	1011	Y	National Trade Trust
	1012	N	
	1013	Y	Chipwich, Inc.
	1014	N	
	1015	Y	Perry Drug Stores, Inc.
	1016	N	
	1017	Y	Sensormatic Electronics Corp.
	1018	Y	Sensormatic Electronics Corp.
	1019	Y	Sensormatic Electronics Corp.
	1020	Y	Sensormatic Electronics Corp.
	1021	Y	Wilshire Technologies, Inc.
	1022	Y	California Micro Devices Corp.
	1023	Y	Lee Pharmaceuticals
	1024	Y	Sensormatic Electronics Corp.
	1025	Y	Wilshire Technologies, Inc.
	1026	Y	Laser Photonics, Inc.
	1027	Y	Sensormatic Electronics Corp.
	1028	Y	Packaging Plus Services, Inc.

1029	NA	
1030	N	
1031	N	
1032	Y	Hollywood Trenz, Inc.
1033	Y	Regal Communications Corp.
1034	Y	Pepsi-Cola Puerto Rico Bottling
1035	Y	Home Theater Products Int'l
1036	N	
1037	N	
1038	Y	Spectrum Information Technologies
1039	N	
1040	Y	Gruntal & Co.
1041	Y	Gruntal & Co.
1042	Y	Gruntal & Co.
1043	Y	Global Timber Corporation
1044	Y	Styles on Video, Inc.
1045	Y	Styles on Video, Inc.
1046	N	
1047	Y	Home Theater Products Int'l
1048	Y	Venator Group/Woolworth Corp.
1049	Y	Venator Group/Woolworth Corp.
1050	Y	Novatek International, Inc.
1051	Y	Home Theater Products Int'l
1052	Y	Venator Group/Woolworth Corp.
1053	N	
1054	Y	Mediajet, Inc.
1055	Y	International Research & Develop
1056	Y	Scientific Software-Intercomp, Inc.
1057	Y	Scientific Software-Intercomp, Inc.
1058	Y	Scientific Software-Intercomp, Inc.
1059	Y	International Research & Develop
1060	Y	Wilshire Technologies, Inc.
1061	Y	Sony Corporation
1062	Y	Sony Corporation
1063	Y	Home Theater Products Int'l
1064	Y	Normandy America Inc.
1065	N	
1066	N	
1067	Y	Underwriters Financial Group, Inc.
1068	Y	Comparator Systems Corporation
1069	N	
1070	N	

1071	Y	Laser Sight, Inc.
1072	N	
1073	N	
1074	N	
1075	Y	Visual Cybernetics Corp.
1076	Y	Audre Recognition Systems, Inc.
1077	N	
1078	N	
1079	Y	Systems of Excellence, Inc.
1080	Y	Corrpro Companies, Inc.
1081	N	
1082	Y	O'Connell & Associates
1083	N	
1084	N	
1085	Y	Packaging Plus Services, Inc.
1086	NA	
1087	Y	VDS
1088	Y	International Research & Develop
1089	Y	Oliver Transportation, Inc.
1090	Y	W.R. Grace&Co.
1091	Y	W.R. Grace&Co.
1092	NA	
1093	Y	Oliver Transportation, Inc.
1094	Y	Oliver Transportation, Inc.
1999 1095	Y	Livent, Inc.
1096	Y	Livent, Inc.
1097	Y	Livent, Inc.
1098	N	
1099	NA	
1100	N	
1101	Y	Livent, Inc.
1102	Y	Livent, Inc.
1103	N	
1104	Y	Donnkenny, Inc.
1105	Y	Donnkenny, Inc.
1106	Y	Madison Group Associates, Inc.
1107	N	
1108	Y	Florida Microcap Entertainment
1109	Y	Micro Component Technology, Inc
1110	Y	Sunrise Medical Inc.
1111	Y	Sunrise Medical Inc.
1112	Y	Sunrise Medical Inc.

1113	N	
1114	Y	Laser Photonics, Inc.
1115	Y	Laser Photonics, Inc.
1116	Y	Nikko SecuritiesCo. International
1117	NA	
1118	Y	Sunrise Medical Inc.
1119	Y	Century Technologies, Inc.
1120	Y	Intercontinental Resources, NA
1121	N	
1122	N	
1123	N	
1124	N	
1125	N	
1126	Y	Terex Corporation
1127	Y	Fruehauf Trailer Corporation
1128	Y	Northstar Health Services, Inc.
1129	Y	Northstar Health Services, Inc.
1130	N	
1131	Y	Cal Micro
1132	Y	Genesis International Financial
1133	Y	Insignia Solutions plc
1134	Y	International Thoroughbred
1135	Y	Intn'l Thoroughbred Breeders
1136	N	
1137	Y	Genesis International Financial
1138	NA	
1139	N	
1140	Y	W.R. Grace&Co.
1141	Y	W.R. Grace&Co.
1142	Y	W.R. Grace&Co.
1143	N	
1144	Y	Micro Warehouse, Inc.
1145	Y	Assix International, Inc.
1146	Y	Assix International, Inc.
1147	N	
1148	Y	American Telephone + Data, Inc.
1149	N	
1150	Y	Miniscribe Corporation
1151	N	
1152	Y	Miniscribe Corporation
1153	Y	Livent Inc.
1154	Y	Inamed Corporation

1155	N	
1156	Y	Livent Inc.
1157	N	
1158	Y	Genesis International Financial
1159	Y	Genesis International Financial
1160	Y	Computone Corporation
1161	Y	First Merchants Acceptance Co.
1162	Y	Unison Healthcare Corp.
1163	Y	KnowledgeWare, Inc.
1164	Y	KnowledgeWare, Inc.
1165	Y	KnowledgeWare, Inc.
1166	Y	Mercury Finance Company
1167	Y	First Merchants Acceptance Co.
1168	Y	WIZ Technology, Inc.
1169	Y	C.E.C. Industries Corporation
1170	Y	Unison Healthcare Corp.
1171	Y	Pepsi-Cola Puerto Rico Bottling
1172	Y	Thor Industries, Inc.
1173	Y	Power Phone Inc.
1174	Y	Material Sciences Corporation
1175	Y	ITEX Corporation
1176	Y	Material Sciences Corporation
1177	Y	KnowledgeWare, Inc.
1178	Y	Computone Corporation
1179	Y	KnowledgeWare, Inc.
1180	Y	Computone Corporation
1181	N	
1182	Y	Model Imperial, Inc.
1183	Y	Photran Corp.
1184	Y	FastComm Communications Corp
1185	Y	Photran Corp.
1186	N	
1187	Y	FastComm Communications Corp
1188	N	
1189	Y	Happiness Express, Inc.
1190	N	
1191	Y	Unison Healthcare Corp.
1192	Y	Photran Corp.
1193	N	
1194	Y	KnowledgeWare, Inc.
1195	Y	KnowledgeWare, Inc.
1196	Y	Model Imperial, Inc.

	1197	Y	ABS Industries, Inc.
	1198	Y	The Nikko Securities Co. Intn'l
	1199	N	
	1200	Y	The Nikko Securities Co. Intn'l
	1201	N	
	1202	Y	W.R. Grace & Co.
	1203	Y	PairGain Technologies, Inc.
	1204	NA	
	1205	Y	Scientific Software-Intercomp
	1206	Y	Scientific Software-Intercomp
	1207	NA	
	1208	Y	The Cronos Group
	1209	Y	Accelr8 Technology Corp.
	1210	Y	United Fire Technology
	1211	Y	Photran Corp.
	1212	Y	Pepsi-Cola Puerto Rico Bottling
	1213	Y	Solucorp Industries Ltd.
2000	1214	Y	Model Imperial, Inc.
	1215	Y	Informix Corporation
	1216	Y	Computerized Thermal Imaging
	1217	Y	KnowledgeWare, Inc.
	1218	Y	KnowledgeWare, Inc.
	1219	N	
	1220	Y	C.E.C. Industries Corporation
	1221	N	
	1222	Y	Fabri-Centers/Jo-Ann Stores, Inc
	1223	Y	ITEX Corporation
	1224	Y	ITEX Corporation
	1225	Y	Fabri-Centers/Jo-Ann Stores, Inc
	1226	Y	Fabri-Centers/Jo-Ann Stores, Inc
	1227	Y	Fabri-Centers/Jo-Ann Stores, Inc
	1228	Y	Dynamic American Corp.
	1229	Y	ITEX Corporation
	1230	Y	Computone Corporation
	1231	Y	First Merchants Acceptance Corp
	1232	N	
	1233	Y	PerSeptive Biosystems, Inc.
	1234	Y	Inamed Corporation
	1235	Y	Laser Technology, Inc.
	1236	Y	Laser Technology, Inc.
	1237	Y	Laser Technology, Inc.
	1238	Y	Laser Technology, Inc.

1239	Y	Micro Warehouse, Inc.
1240	Y	ABS Industries, Inc.
1241	N	
1242	Y	Underwriters Financial Group
1243	Y	Digital Lightwave, Inc.
1244	Y	Digital Lightwave, Inc.
1245	Y	NNPD Textiles, Inc.
1246	Y	Peritus Software Services
1247	Y	Peritus Software Services
1248	N	
1249	N	
1250	Y	Thor Industires, Inc.
1251	Y	Intercontinental Resources, NA
1252	Y	Allegheny Health Education and
1253	Y	Allegheny Health Education and
1254	Y	Allegheny Health Education and
1255	Y	ITEX Corporation
1256	Y	ITEX Corporation
1257	Y	America Online, Inc.
1258	Y	America Online, Inc.
1259	Y	Intile Designs, Inc.
1260	Y	Ferrofluidics Corporation
1261	N	
1262	NA	
1263	Y	Normandy America Inc.
1264	Y	Normandy America Inc.
1265	Y	Computone Corporation
1266	Y	Computone Corporation
1267	Y	Micro Warehouse, Inc.
1268	Y	Ferrofluidics Corporation
1269	Y	Firstmark
1270	Y	Firstmark
1271	N	
1272	Y	Cendant Corporation
1273	Y	Cendant Corporation
1274	Y	Cendant Corporation
1275	Y	Cendant Corporation
1276	Y	Cendant Corporation
1277	Y	Waste Management Inc.
1278	N	
1279	Y	DCI Telecommunications, Inc.
1280	Y	Computone Corporation

1281	NA	
1282	Y	Hybrid Networks, Inc.
1283	Y	Allegheny Health Education and
1284	Y	CUC International, Inc.
1285	Y	System Software Associates, Inc.
1286	Y	Rocky Mountain International, Ltd
1287	Y	Guilford Mills, Inc.
1288	Y	Guilford Mills, Inc.
1289	N	
1290	Y	Keith Group of Companies, Inc.
1291	Y	The Cronos Group
1292	Y	The Cronos Group
1293	Y	Alias Research Inc.
1294	Y	Alias Research Inc.
1295	Y	Boston Scientific Corporatiion
1296	Y	IDB Communications Group, Inc.
1297	Y	American Aircraft Corporation
1298	N	
1299	Y	Material Sciences Corporation
1300	NA	
1301	Y	Oliver Transportation, Inc.
1302	Y	ITEX Corporation
1303	Y	Pier 1 Imports, Inc.
1304	Y	Versatility, Inc.
1305	NA	
1306	Y	IDB Communications Group, Inc.
1307	Y	IDB Communications Group, Inc.
1308	Y	Health Management Inc.
1309	NA	
1310	Y	Centennial Technologies, Inc.
1311	Y	Centennial Technologies, Inc.
1312	Y	Cylink Corporation
1313	Y	Cylink Corporation
1314	Y	Premier Laser Systems, Inc.
1315	N	
1316	N	
1317	N	
1318	N	
1319	Y	Power Phone, Inc.
1320	Y	Leah Industries, Inc.
1321	Y	Health Management Inc.
1322	Y	Health Management Inc.

	1323	Y	Versatility, Inc.
	1324	NA	
	1325	NA	
	1326	NA	
	1327	Y	Countryland Wellness Resorts, Inc
	1328	Y	OakGrigsby, Inc.
	1329	Y	McKesson HBOC
	1330	NA	
	1331	NA	
	1332	NA	
	1333	NA	
	1334	N	
	1335	N	
	1336	Y	Pier 1 Imports, Inc.
	1337	N	
	1338	Y	Detour Magazine, Inc.
	1339	Y	Monarch Investment Properties
	1340	Y	Aviation Distributors, Inc.
	1341	N	
	1342	N	
	1343	Y	Per-Se Technologies, Inc.
	1344	Y	Imonics Corporation
	1345	N	
	1346	Y	Detour Magazine, Inc.
	1347	Y	Detour Magazine, Inc.
	1348	N	
	1349	Y	Monarch Investment Properties
	1350	Y	Micro Strategy, Inc.
	1351	Y	Micro Strategy, Inc.
	1352	Y	Micro Strategy, Inc.
	1353	Y	Craig Consumer Electronics, Inc.
	1354	Y	Saf T Lok, Inc.
	1355	N	
	1356	NA	
	1357	Y	ITEX Corporation
2001	1358	Y	Transcrypt International, Inc.
	1359	N	
	1360	N	
	1361	Y	Aurora Foods
	1362	N	
	1363	N	
	1364	N	

1365	N	
1366	Y	Secure Sign, Inc.
1367	N	
1368	Y	Power Phone, Inc.
1369	Y	Franklin American Corporation
1370	Y	Computron Software
1371	N	
1372	Y	Cendant Corporation
1373	Y	Firstmark Corp.
1374	N	
1375	NA	
1376	N	
1377	N	
1378	Y	National Steel
1379	Y	National Steel
1380	Y	Montedison, S.p.A.
1381	Y	Mercury Finance Company
1382	Y	Excal Enterprises, Inc.
1383	N	
1384	N	
1385	Y	International Nesmont Industrial
1386	N	
1387	N	
1388	Y	Detour Magazine, Inc.
1389	N	
1390	N	
1391	Y	Unison HealthCare Corp.
1392	Y	Unison HealthCare Corp.
1393	Y	Sunbeam Corp.
1394	Y	Sunbeam Corp.
1395	Y	Sunbeam Corp.
1396	Y	Manhattan Bagel, Inc.
1397	Y	Microtest, Inc.

Appendix B

Largest Market Capitalization's of Violating Companies

Largest Market Capitalization's of Violating Companies
 AAER's No. 743 (Jan.1, 1996) - No. 1397 (May 16, 2001)

AAER No.	Approx Capital	Violating Company	Capitalization Categories		
			Category	Exchange	SIC Code
	\$M		1	<= \$250 million	
	10-K		2	\$250-500 million	
			3	\$500-\$1 billion	
			4	\$1-\$2.5 billion	
			5	\$2.5-\$5 billion	
			6	> \$5 billion	SIC
764	\$170	Chambers Development Co.	1	AMEX	4953
766	\$366	Gibson Greetings, Inc.	2	NASD	2700
778	\$40	Sulcus Computer	1	AMEX	3571
793	\$126	Network Equipment Tech	1	NYSE	7373
806	\$16	Kurzweil Applied Intelligence	1	NASD	7372
826	\$1,980	Advanced Micro Devices, Inc.	4	NYSE	3674
839	\$279	Aura Systems, Inc.	2	NASD	3679
862	\$4	Littlefield, Adams & Company	1	AMEX	5130
892	\$7	Sound Advice, Inc.	1	NASD	5731
903	\$453	Structural Dynamics Research	2	NASD	7373
923	\$282	T (2) Medical, Inc.	2	NYSE	8090
924	\$31	Cambridge Biotech	1	NASD	2835
933	\$84	Ferrofluidics Corp.	1	NASD	3559
939	\$798	Policy Management Systems	3	NYSE	6411
950	\$5	Caraco Pharmaceutical Labs	1	NASD	2834
985	\$6	DeGorge Financial/Miles Homes	1	NASD	1520
987	\$3,056	Bausch & Lomb Inc.	5	NYSE	2800
994	\$8	Porta Systems Corp.	1	AMEX	3661

997	\$650	Presstek Inc.	3	NASD	3555
999	\$5	Dynamic Healthcare Technology	1	NASD	7373
1002	\$436	New Jersey Resources Corp	2	NYSE	4924
1015	\$2,289	Perry Drug/Rite Aid	4	NYSE	5912
1017	\$2,425	Sensormatic Electronics	4	NYSE	3669
1022	\$63	California Micro Devices Corp.	1	NASD	3674
1023	\$3	Lee Pharmaceuticals	1	AMEX	2844
1048	\$3,055	Woolworth Corporation	5	NYSE	5331
1080	\$55	Corrpro Companies	1	NYSE	8711
1091	\$4,300	W. R. Grace	5	NYSE	2800
1095	\$211	Livent Inc.	1	NASD	7922
1104	\$38	Donnkenny, Inc.	1	NASD	2320
1109	\$11	Micro Component Technology	1	NASD	3674
1110	\$423	Sunrise Medical, Inc.	2	NYSE	3842
1127	\$166	Terex Corporation	1	NYSE	3537
1135	\$19	Intn'l Thoroughbred Breeders	1	AMEX	7940
1144	\$78	Micro Warehouse, Inc.	1	NASD	5961
1154	\$72	Inamed Corporation	1	NASD	3841
1162	\$10	Unison Healthcare Corp.	1	NASD	8500
1172	\$80	Thor Industries, Inc.	1	NYSE	3716
1174	\$262	Material Sciences Corp.	2	NYSE	3479
1183	\$10	Photran Corp.	1	NASD	3231
1184	\$33	FastComm Communications	1	NASD	3661
1203	\$894	PairGain Technologies, Inc.	3	NASD	3661
1206	\$20	Scientific Software- Intercomp	1	NASD	8700
1209	\$89	Accelr8 Technology Corp.	1	NASD	7372

1212	\$70	Pepsi-Cola Puerto Rico Bottling	1	NYSE	2086
1215	\$1,297	Infomix Corp	4	AMEX	7372
1217	\$651	Sterling Software/Knowledgeware	3	NYSE	7372
1224	\$42	ITEX Corp.	1	NASD	7389
1226	\$126	Fabri-Centers of America	1	NYSE	5940
1230	\$18	Computone Corp.	1	NASD	3570
1231	\$55	First Merchants Acceptance	1	NASD	6141
1233	\$138	PerSeptive Biosystems, Inc.	1	NASD	3820
1237	\$12	Laser Technology Inc.	1	AMEX	3824
1243	\$209	Digital Lightwave, Inc.	1	NASD	3663
1247	\$163	Peritus Software Services, Inc.	1	NASD	7371
1257	\$5,850	America Online (AOL)	6	NYSE	7370
1259	\$2	Intile Designs Inc.	1	NASD	5211
1272	\$30,448	Cendant	6	NYSE	7011
1277	\$27,438	Waste Management, Inc.	6	NYSE	4953
1282	\$216	Hybrid Networks, Inc.	1	NASD	3577
1285	\$577	System Software Associates	3	AMEX	7370
1287	\$316	Guilford Mills, Inc.	2	NYSE	2211
1295	\$7,100	Boston Scientific Corporation	6	NYSE	3841
1296	\$1,249	IDB Communications	4	NASD	4800
1303	\$311	Pier 1 Imports, Inc.	2	NYSE	5712
1304	\$31	Versatility Inc.	1	NASD	7372
1310	\$211	Centennial Technologies, Inc.	1	AMEX	3577
1312	\$104	Cylink Corp.	1	NASD	3577
1314	\$62	Premier Laser Systems, Inc.	1	NASD	3845
1321	\$74	Health Management, Inc.	1	NASD	5912

1327	\$1	Countryland Wellness Resorts	1	NASD	1041
1328	\$408	Oak Industries, Inc.	2	NYSE	3822
1329	\$8,335	McKesson HBOC	6	NYSE	5122
1340	\$7	Aviation Distributors, Inc.	1	NASD	5080
1350	\$198	Microstrategy Inc.	1	NASD	7372
1353	\$2	Craig Consumer Electronics	1	NASD	3651
1354	\$24	SAF T LOK, Inc.	1	NASD	3420
1358	\$36	Transcrypt International, Inc.	1	NASD	3663
1361	\$236	Aurora Foods	1	NYSE	2090
1370	\$11	Computron Software	1	NASD	7372
1379	\$320	National Steel Corp.	2	NYSE	3312
1381	\$1,924	Mercury Finance Company	4	NYSE	6141
1395	\$2,801	Sunbeam Corp.	5	NYSE	3634
1397	\$55	Microtest, Inc.	1	NASD	3825

Appendix C

Companies Ranked in Descending Capitalization Order

Choice-Based Sample Non Violating Companies

Companies Ranked in Descending Capitalization Order

<u>Largest Violating Companies</u>								<u>CHOICE-BASED SAMPLE Non Violating Companies</u>	
Co. No.	AAER No.	Approx. Capital (\$M)	Violating Company	Capital Cat	Common Stock Exch.	Common Violation SIC	Year(s)	Approx. Capital (\$M)	Non Violating Company
1	1272	\$30,448	Cendant	6	NYSE	7011	86-98	\$8,598	Loews Corp
2	1277	\$27,438	Waste Management, Inc.	6	NYSE	4953	99	\$6,700	Browning-Ferris Industries, Inc.
3	1329	\$8,335	McKesson HBOC	6	NYSE	5122	97-99	\$7,060	Cardinal Health, Inc.
4	1295	\$7,100	Boston Scientific Corporation	6	NYSE	3841	97-98	\$20,800	Medtronic, Inc. Electronic Data Systems Corp.
5	1257	\$5,850	America Online (AOL)	6	NYSE	7370	95-96	\$22,700	Westvaco Corp.
6	1091	\$4,300	W. R. Grace	5	NYSE	2800	91-95	\$4,600	Hercules Inc.
7	987	\$3,056	Bausch & Lomb Inc.	5	NYSE	2800	93	\$2,724	Dollar General Corp.
8	1048	\$3,055	Woolworth Corporation	5	NYSE	5331	93	\$4,561	Black & Decker Corp.
9	1395	\$2,801	Sunbeam Corp.	5	NYSE	3634	96-98	\$1,750	Stanley Works
10	1017	\$2,425	Sensormatic Electronics	4	NYSE	3669	94-95	\$1,247	Revco
11	1015	\$2,289	Perry Drug/Rite Aid	4	NYSE	5912	92	\$1,695	Analog Devices, Inc.
12	826	\$1,980	Advanced Micro Devices, Inc.	4	NYSE	3674	92-93	\$2,000	Beneficial Corp.
13	1381	\$1,924	Mercury Finance Co.	4	NYSE	6141	96-97	\$1,047	Symantec
14	1215	\$1,297	Infomix Corp	4	AMEX	7372	94-97	\$1,246	Turner Broadcasting System
15	1296	\$1,249	IDB Communications	4	NASD	4800	94	\$912	Aspect Telecommunications
16	1203	\$894	PairGain Technologies	3	NASD	3661	94-95	\$738	Alleghany Corp.
17	939	\$798	Policy Management Systems	3	NYSE	6411	92-93		

18	1217	Sterling \$651 Software/Knowledgeware	3	NYSE	7372	93-94	Cadence Design Systems, \$864 Inc.
19	997	\$650 Presstek Inc.	3	NASD	3555	94-96	\$675 Zebra Technologies
20	1285	System Software \$577 Associates	3	AMEX	7370	95-96	\$867 Mentor Graphics Corp.
21	903	Structural Dynamics \$453 Research	2	NASD	7373	92-94	\$259 Digi International Inc.
22	1002	New Jersey Resources \$436 Corp	2	NYSE	4924	92	\$332 Bay State Gas Co.
23	1110	\$423 Sunrise Medical, Inc.	2	NYSE	3842	95	\$257 Carter-Wallace, Inc.
24	1328	\$408 Oak Industries, Inc.	2	NYSE	3822	95-96	\$448 Watts Industries, Inc.
25	766	\$366 Gibson Greetings, Inc.	2	NASD	2700	91-94	\$276 The Topps Company, Inc.
26	1379	\$320 National Steel Corp.	2	NYSE	3312	96-97	\$333 Birmingham Steel Corp.
27	1287	\$316 Guilford Mills, Inc.	2	NYSE	2211	96-98	\$294 Cone Mills Corporation The Bombay Company,
28	1303	\$311 Pier 1 Imports, Inc.	2	NYSE	5712	93-96	\$407 Inc.
29	923	\$282 T (2) Medical, Inc.	2	NYSE	8090	93	\$396 Fremont General Corp.
30	839	\$279 Aura Systems, Inc.	2	NASD	3679	93-94	\$301 Auspex Systems, Inc.
31	1174	\$262 Material Sciences Corp.	2	NYSE	3479	95-97	\$255 Sequa Corp.
32	1361	\$236 Aurora Foods	1	NYSE	2090	98-99	\$101 Zapata Corp.
33	1282	\$216 Hybrid Networks, Inc.	1	NASD	3577	97	\$63 Datum, Inc.
34	1095	\$211 Livent Inc.	1	NASD	7922	93-98	\$243 SFX Broadcasting
35	1310	Centennial \$211 Technologies, Inc.	1	AMEX	3577	94-97	\$19 TAB Products Co.

36	1243	\$209 Digital Lightwave, Inc.	1	NASD	3663	97	\$57 Quixote Corp.
37	1350	\$198 Microstrategy Inc. Chambers Development	1	NASD	7372	98-00	\$229 Barra, Inc. Air & Water
38	764	\$170 Co.	1	AMEX	4953	90-92	\$141 Technologies Corp.
39	1127	\$166 Terex Corporation Peritus Software	1	NYSE	3537	89-92	\$137 JLG Industries Inc.
40	1247	\$163 Services, Inc. PerSeptive Biosystems,	1	NASD	7371	97-98	\$89 Phamis Inc.
41	1233	\$138 Inc.	1	NASD	3820	93-94	\$147 Gelman Sciences, Inc. Safeguard Scientifics,
42	793	\$126 Network Equipment Tech Fabri-Centers of	1	NYSE	7373	89	\$201 Inc.
43	1226	\$126 America	1	NYSE	5940	92-93	\$191 Hancock Fabrics Inc.
44	1312	\$104 Cylink Corp. Accelr8 Technology	1	NASD	3577	97-98	\$156 Davox Corp.
45	1209	\$89 Corp.	1	NASD	7372	97-99	\$21 Datamark Holding Inc.
46	933	\$84 Ferrofluidics Corp.	1	NASD	3559	92	\$237 Helix Technology Corp.
47	1172	\$80 Thor Industries, Inc.	1	NYSE	3716	96-98	\$109 Winnebago Industries Damark International,
48	1144	\$78 Micro Warehouse, Inc.	1	NASD	5961	94-96	\$71 Inc.
49	1321	\$74 Health Management, Inc.	1	NASD	5912	94-96	\$144 Chronimed Inc.
50	1154	\$72 Inamed Corporation Pepsi-Cola Puerto Rico	1	NASD	3841	96-97	\$33 Hycor Biomedical Inc.
51	1212	\$70 Bottling California Micro	1	NYSE	2086	95-96	\$208 Triarc Companies
52	1022	\$63 Devices Corp. Premier Laser Systems,	1	NASD	3674	94	\$104 Mylex Corp.
53	1314	\$62 Inc.	1	NASD	3845	97-98	\$36 Zoll Medical Corp.
54	1080	\$55 Corrpro Companies	1	NYSE	8711	95	\$88 Titan Corp.

		First Merchants						
55	1231	\$55 Acceptance	1	NASD	6141	96-97	\$138	First State Corp.
56	1397	\$55 Microtest, Inc.	1	NASD	3825	96-98	\$130	Veeco Instruments, Inc.
57	1224	\$42 ITEX Corp.	1	NASD	7389	95-97	\$88	Metrocall, Inc.
58	778	\$40 Sulcus Computer	1	AMEX	3571	93-94	\$9	Trans Lux Corp.
59	1104	\$38 Donnkenny, Inc.	1	NASD	2320	94-96	\$7	Danskin Inc.
		Transcrypt						
60	1358	\$36 International, Inc.	1	NASD	3663	96-97	\$24	Spectralink Corp.
								Penril Datacomm
61	1184	\$33 PastComm Communications	1	NASD	3661	93-95	\$52	Networks
62	924	\$31 Cambridge Biotech	1	NASD	2835	91-92	\$138	Mycogen Corp.
63	1304	\$31 Versatility Inc.	1	NASD	7372	97-98	\$90	Quarterdeck Corp.
64	1354	\$24 SAF T LOK, Inc.	1	NASD	3420	97-98	\$65	Lifetime Hoan Corp.
		Scientific Software-						
65	1206	\$20 Intercomp	1	NASD	8700	92-95	\$9	Telesoft Corp.
		Intn'l Thoroughbred						
66	1135	\$19 Breeders	1	AMEX	7940	92-98	\$37	Ackerley Communications
67	1230	\$18 Computone Corp.	1	NASD	3570	95-96	\$70	Checkmate Electronics
		Kurzweil Applied						
68	806	\$16 Intelligence	1	NASD	7372	92-94	\$160	HPR Inc.
69	1237	\$12 Laser Technology Inc.	1	AMEX	3824	95-98	\$15	Bowmar Instrument Corp.
		Micro Component						
70	1109	\$11 Technology	1	NASD	3674	94	\$23	HEI Inc.
71	1370	\$11 Computron Software	1	NASD	7372	95-96	\$245	Viasoft Inc.
72	1162	\$10 Unison Healthcare Corp.	1	NASD	8500	96	\$229	Seafield Capital Corp.
								Eastco Industrial
73	1183	\$10 Photran Corp.	1	NASD	3231	97-98	\$4	Safety Corp.
74	994	\$8 Porta Systems Corp.	1	AMEX	3661	95	\$23	Audiovox Corp.
75	892	\$7 Sound Advice, Inc.	1	NASD	5731	95	\$15	NAI Technologies Inc.

76	1340	Aviation Distributors, \$7 Inc.	1	NASD	5080	95-97	\$12 Monroc Inc.
77	985	DeGorge Financial/Miles \$6 Homes	1	NASD	1520	92-95	\$6 Rottlund Company, Inc.
78	950	Caraco Pharmaceutical \$5 Labs	1	NASD	2834	93-94	Noven Pharmacueticals \$216 Inc.
79	999	Dynamic Healthcare \$5 Technology	1	NASD	7373	92-94	\$65 Crosscomm Corp.
80	862	Littlefield, Adams & \$4 Company	1	AMEX	5130	92-96	\$3 Concord Fabrics, Inc.
81	1023	\$3 Lee Pharmaceuticals	1	AMEX	2844	91-95	\$3 MEM Company, Inc.
82	1259	\$2 Intile Designs Inc. Craig Consumer	1	NASD	5211	94-96	Lindal Cedar Homes, \$6 Inc.
83	1353	\$2 Electronics Countryland Wellness	1	NASD	3651	97	\$15 Videonics, Inc.
84	1327	\$1 Resorts	1	NASD	1041	97-00	\$4 MK Gold

NOTE:

When reviewing the SEC Form 10-K's for the violating companies, two companies, both traded on the NASD exchange did not have audit committees during the violating periods. These companies, Ferrofluidics Corp., ranked number 46 (AAER No. 933), and Inamed Corporation, ranked number 50 (AAER No. 1154), were not included for this research because of the absence of audit committees. The research of the 75 largest violating companies for which data was available thus extended through violator No. 77, DeGorge Financial/Miles Homes.

Appendix D

Company and Director List and Classifications

COMPANY AND DIRECTOR LIST AND CLASSIFICATIONS

Legend:

1 = Yes

2 = No

BRC = Blue Ribbon Committee Literacy

Strt = Strict Financial Literacy

Ind = Independent of Management

Cert = Accounting Certified

VIOLATING COMPANIES

NON-VIOLATING COMPANIES

AAER Company Name						Company Name					
<u>No.</u>	<u>Audit Comm. Member</u>	<u>BRC</u>	<u>Strt</u>	<u>Ind</u>	<u>Cert</u>	<u>Audit Comm. Member</u>	<u>BRC</u>	<u>Strt</u>	<u>Ind</u>	<u>Cert</u>	
1272	<u>1) Cendant/CUC</u>					<u>1) Loews</u>					
	Perfit, Burton C.	1	2	1	2	Benenson, Charles B.	1	2	1	2	
	Donnelley, T. Barnes	1	2	1	2	Scott, Gloria R.	1	2	1	2	
	Greyser, Stephen A.	2	2	1	2						
1277	<u>2) Waste Management, Inc.</u>					<u>2) Browning Ferris Industries</u>					
	Heckmann, Richard J.	1	2	1	2	Grayson, C. Jackson	1	2	1	2	
	Hills, Roderick M.	1	2	1	2	Whitman, Marina v.N.	1	2	1	2	
	Kinder, Richard D.	1	2	1	2	Willmott, Peter S.	1	1	1	2	
	Pope, John C.	1	1	1	2						

1329	<u>3) McKesson/HBOC</u>					<u>3) Cardinal Health Inc.</u>				
	Incarnati, Philip A.	1	2	1	2	Finn, John F.	1	2	1	2
	Mayo, Gerald E.	1	1	1	2	Gerbig, Robert L.	1	2	1	2
	Napier, James V.	1	2	1	2	Robertson, Jerry E.	1	2	1	2
	Wegmiller, Donald C.	1	2	1	2	Herzlinger, Regina E.	1	2	1	2
1295	<u>4) Boston Scientific</u>					<u>4) Medtronic Inc.</u>				
	Ascher, Jr., Charles J.	1	2	1	2	Schall, Richard L.	1	2	1	2
	Fleishman, Joel L.	1	2	1	2	Gotto, Jr., Antonio M.	2	2	1	2
	Horsch, Lawrence L.	1	1	1	2	Holloran, Thomas E.	1	1	1	2
	Nicholas, Jr., N.J.	1	2	2	2	Schuler, Jack W.	1	2	1	2
						Swalin, Richard A.	1	2	1	2
1257	<u>5) America On-Line</u>					<u>5) Electronic Data Systems</u>				
	Smith, Scott C.	1	1	1	2	Groves, Ray J.	1	1	1	1
	Frankenberg, Robert J.	1	2	1	2	Hunt, Ray L.	1	2	1	2
	Melton, William N.	1	2	1	2	Sosa, Enrique J.	1	2	1	2

1048	<u>8) Woolworth/Venator Group</u>					<u>8) Dollar General Corp.</u>				
	Gilbert, Jarobin Gilbert	1	2	1	2	Clayton, James L.	1	2	1	2
	Mackowski, John J.	1	2	1	2	Dickson, Reginald D.	1	2	1	2
	Crawford, Purdy	1	2	1	2	Holland, John B.	1	2	1	2
						Knuckles, Barbara M.	2	2	1	2
1395	<u>9) Sunbeam Corp.</u>					<u>9) Black & Decker Corp.</u>				
	Elson, Charles M.	2	2	1	2	Augustine, Norman R.	1	2	1	2
	Kristol, Howard G.	2	2	1	2	Bowles, Barbara L.	1	2	1	2
	Rutter, William T.	1	2	1	2	Candlish, Malcom	1	2	1	2
						Woodward, M. Cabell	1	1	1	2
1017	<u>10) Sensormatic Electronics Corp.</u>					<u>10) Stanley Works</u>				
	Buffett, Thomas V.	1	2	1	2	Kaiser, James G.	1	2	1	2
	Ray, Jr., John T.	1	2	1	2	McNerney, Jr., W. James	1	2	1	2
	Milnes, Arthur G.	2	2	1	2	Brown, Stillman B.	1	1	1	2
						Kraus, Eileen S.	1	1	1	2
						Scott, John S.	1	2	1	2

1015	<u>11) Perry Drug/Rite Aid</u>					<u>11) Revco D. S. Inc.</u>				
	Taub, Henry	1	2	1	2	Evans, Ben	1	1	1	1
	Neivert, Phillip	1	2	1	2	Gutttag, Jim V.	1	2	1	2
	Tsai, Jr., Gerald	1	2	1	2	Reinhold, Walter B.	1	2	1	2
						Schulte, David M.	1	1	1	2
						Thorsen, Thomas O.	1	1	1	2
826	<u>12) Advanced Micro Devices Inc.</u>					<u>12) Analog Devices Inc.</u>				
	Blalack, Charles M.	1	1	1	2	McKeague, Gordon C.	1	2	1	2
	Brown, R. Gene	1	2	1	2	Doyle, John L.	1	2	1	2
	Roby, Joe L.	1	1	1	2	Lowe, Philip L.	1	2	1	2
						Moses, Joel	1	2	1	2
1381	<u>13) Mercury Finance Co.</u>					<u>13) Beneficial Corp.</u>				
	Johnson, Clifford R.	1	2	1	2	Bower, Charles W.	1	1	2	2
	McNally, IV, Andrew	1	2	1	2	Hernandez, Roland A.	1	2	1	2
	Steingraber, Fred G.	1	2	1	2	Tucker, Robert A.	1	1	2	2
	Wicklender, Philip J.	1	2	1	2	Watts, II, Charles H.	1	2	1	2

1215	<u>14) Informix Corp.</u>					<u>14) Symantec Corporation</u>				
	Knorp, Albert F.	1	2	2	2	Bergman, Walter W.	1	2	1	2
	Koch, James L.	1	2	1	2	Miller, Robert S.	1	1	1	2
	McDonnell, Thomas A.	1	1	1	2					
	Yansouni, Cyril J.	1	2	1	2					
1296	<u>15) IDB Communications Group</u>					<u>15) Turner Broadcasting</u>				
	Cheramy, Edward R.	1	1	2	1	Collins, Joseph J.	1	2	1	2
	Fried, Franklin E.	1	2	1	2	Roberts, Brian L.	1	2	1	2
	Cohen, Joseph M.	1	2	1	2					
1203	<u>16) PairGain Technologies</u>					<u>16) Aspect Telecommunications</u>				
	Hawk, Robert C.	1	2	1	2	Fogelsong, Norman A.	1	2	1	2
	Holl, Robert A.	1	2	1	2	Peth, John W.	1	1	1	1
	Lay, B. Allen	1	2	1	2					

939	<u>17) Policy Management Systems</u>					<u>17) Alleghany Corp</u>				
	Trub, Richard G.	1	2	1	2	Lavin, William K.	1	1	1	1
	Sargent, Joseph D.	1	1	1	2	Tobin, John E.	1	2	1	2
	Feddersen, Donald W.	1	2	1	2	Will, James F.	1	2	1	2
	Seibels, John P.	1	2	1	2					
1217	<u>18) KnowledgeWare/Sterling Software</u>					<u>18) Cadence Design Systems</u>				
	Donachie, Robert J.	1	2	1	2	Lucas, Donald L.	1	2	1	2
	Cook, Robert E.	1	2	1	2	Scalise, George M.	1	2	1	2
997	<u>19) Presstek, Inc.</u>					<u>19) Zebra Technologies Corp</u>				
	Sparks, Harold N.	1	2	1	2	Knowles, Christopher G.	1	2	1	2
	DePamphilis, Bert	2	2	1	2	Smith, Michael A.	1	1	1	2
1285	<u>20) System Software Associates</u>					<u>20) Mentor Graphics Corp</u>				
	Weaver, William N.	1	2	2	2	Congdon, Marsha B.	1	2	1	2
	Filipowski, Andrew J.	1	2	1	2	Fiebiger, James R.	1	2	1	2
	Puth, John W.	1	2	1	2					

903	<u>21) Structural Dynamics Research Corp.</u>					<u>21) Digi International</u>				
	McDowell, John E.	1	2	2	2	Offerdahl, Richard E.	1	2	1	2
	Henderson, Robert P.	1	2	1	2	Stanley, David	1	2	1	2
	Peter, Albert F.	1	2	2	2	Eichhorn, Richard E	1	2	1	2
1002	<u>22) New Jersey Resources Corp.</u>					<u>22) Bay State Gas Co.</u>				
	Stalon, Charles G.	1	2	1	2	Finnegan, Lawrence J.	1	2	1	2
	Unkles, Jr., John J.	1	2	1	2	McGregor, Jack E.	1	2	1	2
	Light, Dorthy K.	1	2	1	2	Sarney, George W.	1	2	1	2
	Toohy, Thomas B.	1	1	2	2					
	Haas, Warren R.	1	2	1	2					
	Jackson, Shirley A.	2	2	1	2					
1110	<u>23) Sunrise Medical Inc.</u>					<u>23) Carter Wallace Inc.</u>				
	Cotsen, Lloyd E.	1	2	1	2	Baldwin, David M.	1	2	1	2
	Heimbuch, Babette	1	2	1	2	Cruess, Richard L.	2	2	1	2
	Pierpoint, William L.	1	1	1	1	Rinaldi, Herbert M.	1	2	1	2
	Stemler, Joseph	1	2	1	2					

1328	<u>24) Oak Industries, Inc.</u>					<u>24) Watts Industries, Inc.</u>				
	Leisz, George W.	1	2	1	2	Herndon, Noah T.	1	2	1	2
	Matthews, Gilbert E.	1	2	1	2	Lane, Wendy E.	1	2	1	2
	Mills, Christopher H. B.	1	2	1	2	Moran, Gordon W.	1	2	1	2
	Richardson, Elliot L.	1	2	1	2					
766	<u>25) Gibson Greetings, Inc.</u>					<u>25) Topps Co., Inc.</u>				
	Pezzillo, Albert R.	1	2	1	2	Greenberg, Stephen D.	1	2	1	2
	Stanton, Frank	1	2	1	2	Tulchin, Stanley	1	2	1	2
						Feder, Allan A.	1	2	1	2
						Mauer, David M.	1	2	1	2
1379	<u>26) National Steel Corp.</u>					<u>26) Birmingham Steel Corp.</u>				
	Lucchino, Frank J.	1	2	1	2	Clegg, C. Stephen	1	2	1	2
	Mac Laury, Bruce K.	2	2	1	2	Stinson, George A.	1	2	1	2
						Holiday, Jr., Harry	1	2	1	2
						Wyckoff, T. Evans	1	2	1	2

1287	<u>27) Guilford Mills, Inc.</u>					<u>27) Cone Mills Corp.</u>				
	Fishman, Maurice	1	2	2	2	Gaulden, Leslie W.	1	1	2	1
	Hassenfelt, Stephen C.	1	2	1	2	Kimmel, Jeanette C.	1	2	1	2
	Dixon, Donald B.	1	2	1	1	Bray, Doris R.	1	2	1	2
1303	<u>28) Pier 1 Imports, Inc.</u>					<u>28) The Bombay Company</u>				
	McKenzie, Sally F.	2	2	1	2	Niles, Clayton E.	1	2	1	2
	Hoak, Jr., James M.	1	2	1	2	Bass, Barbara	1	2	1	2
	Pontikes, Kenneth N.	1	2	1	2	Jackson, Robert S.	1	1	2	2
						Megarry, A. Roy	1	1	1	1
923	<u>29) T2 Medical</u>					<u>29) Freemont General Corp.</u>				
	Fielitz, Bruce D.	1	2	1	2	Flournoy, Houston I.	1	2	1	2
	Smith, Anthony C.	1	2	1	2	Morrisroe, David W.	1	2	1	2
	Trotman, Stanley S.	1	2	1	2	Ross, Dickinson C.	1	2	1	2
839	<u>30) Aura Systems, Inc.</u>					<u>30) Auspex Systems</u>				
	Cohen, Harvey	1	2	1	2	King, Frank W.	1	2	1	2
	Reitman, Norman	1	1	1	2	Cheyeyl, Stephen	1	1	1	2

1174	<u>31) Material Sciences Corp.</u>					<u>31) Sequa Corp.</u>				
	Heizer, Jr., E. F.	1	1	1	2	Dworman, Alvin	1	2	1	2
	Leach, J. Frank	1	2	1	2	Fergenson, A. Leon	1	2	1	2
						Sullivan, Fred R.	1	2	1	2
						Tsai, Jr., Gerald	1	2	1	2
1361	<u>32) Aurora Foods Inc.</u>					<u>32) Zapata Corp.</u>				
	Apsey, Clive A.	1	2	1	2	Gfeller, Warren H.	1	2	1	2
	Delaney, Charles J.	1	2	1	2	Leffler, Robert V.	1	2	2	2
1282	<u>33) Hybrid Networks, Inc.</u>					<u>33) Datum Inc.</u>				
	Flach, James R.	1	2	2	2	Money, Edward A.	1	1	2	2
	Halprin, Stephen E.	1	2	1	2	McGurk, Dan L.	1	2	1	2
						Gardner, G. Tilton	1	2	1	2
						Mann, Michael M.	1	2	1	2

1095	<u>34) Livent Inc.</u>					<u>34) SFX Broadcasting Inc.</u>				
	Emerson, H. Garfield	1	2	1	2	O'Grady, James F.	1	2	1	2
	Goldfarb, Martin	1	2	1	2	Kramer, Paul	1	1	1	1
	Gottlieb, Myron I.	1	2	2	2	Dugan, Edward F.	1	2	1	2
	Sarlos, Andrew	1	2	1	2					
1310	<u>35) Centennial Technologies</u>					<u>35) TAB Products</u>				
	Beaubien, J. P. Luc	1	1	1	2	Peth, John W.	1	1	2	1
	Kinch, William M.	1	2	1	2	Augsburger, Robert R.	1	2	1	2
						Wolf, Hans A.	1	2	2	2
1243	<u>36) Digital Lightwave, Inc.</u>					<u>36) Quixote Corp.</u>				
	Hamilton, William F.	1	2	1	2	McQuade, Lawrence C.	1	2	1	2
	Seifert, William	1	2	1	2	Fowler, William G.	1	2	1	2
						Van Roijen, Jr., Robert I	1	2	1	2
1350	<u>37) MicroStrategy, Inc.</u>					<u>37) Barra Inc.</u>				
	Ingari, Frank A.	1	2	1	2	Battle, A. George	1	1	1	1
	Terkowitz, Ralph S.	1	2	1	2	Hull, M. Blair	1	2	1	2
						Lanstein, Ronald J.	1	1	2	2

764	<u>38) Chambers Development Company</u>					<u>38) Air & Water Technologies</u>				
	Moffett, William E.	1	2	1	2	Costle, Douglas M.	1	2	1	2
	Peretto, Michael J.	1	2	2	2	Morris, John W.	1	2	1	2
	Arthur, John M.	1	2	1	2					
1126	<u>39) Terex Corporation</u>					<u>39) JLG Industries</u>				
	Andersen, G. Chris	1	2	1	2	Duffey, K. Lyle	1	2	1	2
	Raben, Bruce I.	1	2	1	2	Fries, J. Robert	1	2	1	2
	Sachs, David A.	1	2	1	2	Hendrickson, E. Mason	1	2	1	2
	Wolf, Adam E.	1	2	1	2	Kempton, George R.	1	2	1	2
1247	<u>40) Peritus Software Services</u>					<u>40) Phamis</u>				
	Giordano, John	1	1	1	2	Dyer, Daniel	1	2	1	2
	Leblois, Axel	1	2	1	2	Wollaeger, Timothy J.	1	2	1	2
	Pampel, Roland	1	2	1	2	Smith, Lonnie M.	1	2	1	2
1233	<u>41) PersSeptive Biosystems</u>					<u>41) Gelman Sciences</u>				
	Kania, Jr., Edwin M.	1	2	1	2	Hymans, Saul H.	1	2	1	2
	Pounds, William F.	1	2	1	2	Newman, Charles	1	2	1	2
						Geishecker, John A.	1	1	1	2

793	<u>42) Network Equipment Technologies</u>					<u>42) Safeguard Scientifics</u>				
	Wolf, Hans A.	1	1	2	2	Likins, Peter	1	2	1	2
	Doll, Dixon R.	1	2	1	2	Messman, Jack L.	1	2	1	2
	Peterson, Jr., DuWayne J.	1	2	1	2	Pallmer, Russell E.	1	1	1	1
1226	<u>43) Fabri-Centers of America</u>					<u>43) Hancock Fabrics</u>				
	Gumberg, Ira	1	2	1	2	Devening, R. Randolph	1	1	1	2
	Cowen, Scott	1	1	1	2	Weaver, Donna L.	1	2	1	2
	Krasney, Samuel	1	1	1	1	Fruge, Don L.	1	2	1	2
	Newman, Frank	1	2	1	2					
1312	<u>44) Cylink Corporation</u>					<u>44) Davox Corp.</u>				
	Morgan, Howard L.	1	2	1	2	Kaufman, Michael D.	1	2	1	2
	Berlekamp, Elwyn	1	2	2	2	Levison, Walter J.	1	2	1	2
	Harris, William W.	1	2	1	2	Asen, R. Scott	1	2	1	2
1209	<u>45) Accelr8 Technology</u>					<u>45) Datamark Holding Inc.</u>				
	Wilhelm, David C.	1	2	1	2	Egide, James A.	1	2	2	2
	Arnold III, A. Alexander	1	2	1	2	Stone, C. Scott	1	1	1	1
						Woolley, Kenneth M,	1	2	1	2

1022	<u>50) California Micro Devices</u>					<u>50) Mylex Corp.</u>				
	Desaigoudar, Chan	1	2	2	2	Dudhia, Ismael	1	1	2	2
	Meyercord, Wade	1	2	1	2	Mirza, M. Yaqub	1	2	2	2
	Schube, Stuart	1	2	1	2	Singh, Inder M.	1	2	1	2
1314	<u>51) Premier Laser Systems</u>					<u>51) Zoll Medical Corp.</u>				
	Day, Patrick J.	1	1	2	1	Herndon, Noah T.	1	2	1	2
	Lin, Grace Chin-Hsin	1	2	1	2	Clafin II, Thomas M.	1	2	1	2
	Shapiro, E. Donald	1	2	1	2	Heilman, M. Stephen	1	2	1	2
1080	<u>52) Corrpro Companies</u>					<u>52) Titan Corp.</u>				
	Overbeck, Joseph C.	1	2	1	2	Allen, Charles R.	1	1	1	2
	Lynham, C. Richard	1	2	1	2	Caligiuri, Joseph F.	1	2	1	2
	Hodge, Robert E.	1	2	1	2	Fink, Daniel J.	1	1	1	2

1231 53) First Merchants Acceptance

Hiatt, Thomas A.	1	2	1	2
Shockey, Marcy H.	1	2	1	2
Weisgal, Solomon A.	1	1	1	1

53) First State Corp.

Hughey, III, G. William	1	2	1	2
Spurlock, Earle P.	1	2	1	2
Deal Jr., James D.	1	2	1	2
Phillips III, John Temple	1	2	1	2
Wetherbee, Michael J.	1	2	1	2
Walden, William L.	1	2	1	2

1397 54) Microtest, Inc.

Turner, William C.	1	2	1	2
Walker, Dianne C.	1	2	1	2
Mihaylo, Stephen G.	1	2	1	2

54) Veeco Instruments Inc.

D'Amore, Richard A.	1	2	1	2
Low, Paul R.	1	2	1	2
Elftmann, Joel A.	1	2	1	2

1224 55) Itex Corporation

Nelson, Robert	1	1	2	1
Ames, Evan B.	1	2	1	2
Morris, Joseph	1	1	2	1

55) Metrocall Inc.

Martin, III, Frank A.	1	2	1	2
Aprahamian, Ronald V.	1	2	2	2

778	<u>56) Sulcus Computer Corp.</u>					<u>56) Trans Lux Corp.</u>				
	Gries, Robert D.	1	2	1	2	Firstenberg, Jean	1	2	1	2
	Adler, David H.	1	2	1	2	Baruch, Steven	1	2	1	2
						Modlin, Howard S.	1	2	1	2
						Greenes, Robert	1	2	2	2
1104	<u>57) Donnkenny, Inc.</u>					<u>57) Danskin Inc.</u>				
	Appelle, Harvey, A.	1	2	1	2	Mortimer, Jr., Haenry T.	1	2	1	2
	Crystal, James W.	1	2	1	2	Patterson, Patricia S.	1	2	1	2
	Horowitz, Harvey	1	2	2	2	Shelton, Larry B.	1	1	1	1
1358	<u>58) Transcript International, Inc.</u>					<u>58) Spectralink Corp.</u>				
	Larsen, Thomas R.	1	1	1	1	Carman, Carl D.	1	2	1	2
	Smith, Thomas C.	1	2	1	2	Meyers, Jr., F. Gibson	1	2	1	2
	Henning, Thomas E.	1	2	1	2					
1184	<u>59) FastComm Communications</u>					<u>59) Peril Datacomm Networks</u>				
	Olson, Edward R.	1	2	1	2	Schneider, Howard M.	1	2	1	2
						Einspruch, Norman G.	1	2	1	2
						Newlin, Michael H.	1	2	1	2

924	<u>60) Cambridge Biotech Corp.</u>					<u>60) Mycogen Corp.</u>				
	Kalman, C. Arnold	1	2	1	2	Cable, Thomas J.	1	2	1	2
	Nisbet, W. Samuel	1	2	1	2	Hill, George R.	1	2	1	2
	Taylor, Thomas T.	1	2	1	2	Hopping, Kenneth H.	1	2	1	2
						Rammler, David H.	1	2	2	2
						Speziale, A. John	1	2	1	2
1304	<u>61) Versitility, Inc.</u>					<u>61) Quarterdeck Corp.</u>				
	Smith, Thomas A.	1	2	1	2	Morgan, Howard L.	1	2	1	2
	Johnson, Charles A.	1	2	1	2	LaHaye, Frank W. T.	1	2	2	2
						Lane, III, William H.	1	1	1	2
1354	<u>62) Saf T Lok Inc.</u>					<u>62) Lifetime Hoan Corp.</u>				
	DeConcini, Dennis W.	1	2	1	2	Shifftan, Ronald	1	2	1	2
	Stanton, James V.	1	2	1	2	Bernstein, Howard	1	1	1	1
1206	<u>63) Scientific Software Intercomp Inc.</u>					<u>63) Telesoft Corp.</u>				
	Nichols, William B.	1	2	1	2	Silverman, Cecile	1	1	1	1
	Price, Jr., Edward O.	1	2	1	2	Swanky, Kalvan	1	2	1	2

1135	<u>64) International Thoroughbred Breeders</u>					<u>64) Ackerley Communications</u>				
	Brennan, Robert E.	1	2	2	2	Cooley, Richard P.	1	2	1	2
	Fisher, Joseph K.	1	2	1	2	Gilchrist, M. Ian G.	1	2	1	2
	Riccio, Ronald J.	1	2	1	2	Thielen, Michel C.	1	2	1	2
1230	<u>65) Computone Corporation</u>					<u>65) Checkmate Electronics</u>				
	Hansen, Richard A.	1	2	2	2	Crowley, James W.	1	2	1	2
	Lovely, William C.	1	1	1	2	Neubert, John J.	1	1	2	2
						Peters, Franck C.	1	2	1	2
						Spence, J. Stanford	1	2	2	2
806	<u>66) Kurzweil Applied Intelligence</u>					<u>66) HPR Inc.</u>				
	Kaplan, Steven F.	1	1	1	2	Berman, Harris A.	1	2	2	2
	Lonergan, William R.	1	2	1	2	Egdahl, Richard H.	1	2	2	2
	Storey, James W.	1	2	1	2	Nelson, William G.	1	2	1	2
1237	<u>67) Laser Tech</u>					<u>67) Bowmar Instrument</u>				
	Carr, William R.	2	2	1	2	Gerard, Fred N.	1	2	1	2
	Lynch, F. James	1	2	1	2	McGurk, Dan L.	1	1	1	2
	Sayford, Richard B.	1	2	1	2	Rehard, Thomas M.	1	2	1	2

1109	<u>68) Micro Component Technology</u>					<u>68) HEI Inc.</u>				
	Guzy, D. James	1	2	1	2	Franta, Willaim R.	1	2	1	2
	Verderico, Patrick	1	1	1	1	Schoen, Kenneth A.	1	2	1	2
	VanLunvane, Donald	1	2	1	2	Brueck, Robert L.	1	2	1	2
						Zimmerman, Fredrick M.	1	2	1	2
1370	<u>69) Computron Software, Inc.</u>					<u>69) Viasoft Inc.</u>				
	Kopchinsky, Gregory	1	2	1	2	Barry, III, John J.	1	2	1	2
	Migliorino, Robert	1	2	1	2	Kuli, Alexander S.	1	2	1	2
1162	<u>70) Raintree Healthcare</u>					<u>70) Seafield Capital Corp.</u>				
	Kremser, David A.	1	1	1	2	Robinson, Jr., John H.	1	2	1	2
	Casey, John T.	1	2	1	2	Kemper, David W.	1	2	1	2
	Lynch, John T	1	2	1	2					
	White, Mark W.	1	2	1	2					
1183	<u>71) Photran Corp.</u>					<u>71) Easto Industrial Safety Corp.</u>				
	Clarke, Robert S.	1	2	1	2	Towell, Anthony P.	1	1	2	2
	Brantman, Frank	1	2	1	2	Favia, James	1	1	1	1
						Schneiderman, Herbert	1	2	1	2

994	<u>72) Porta Systems Corp.</u>					<u>72) Audiovox Corp.</u>				
	Brous, Howard D.	1	2	1	2	Tucker, Gordon	1	2	1	2
	Esanu, Warren H.	1	2	1	2	Halevy, Irving	1	2	1	2
	Feldman, Herbert H.	1	1	1	1					
892	<u>73) Sound Advice Inc.</u>					<u>73) NAI Technologies Inc.</u>				
	Piccirilli, Joseph	1	2	2	2	Schneider, Richard A.	1	1	2	2
	Griffith, G. Kay	1	2	2	2	Barre, Stephen A.	1	2	1	2
	McEwen, Richard W.	1	2	1	2	Shelton, James C.	1	2	1	2
						McCarthy, Dennis	1	2	1	2
1340	<u>74) Aviation Distributors, Inc.</u>					<u>74) Monroc Inc.</u>				
	Haglund, Bruce H.	1	2	2	2	Lightcap, William T.	1	2	1	2
	Lewis, Daniel C.	1	2	1	2	Ross, Jules	1	2	1	2
	Walker, Jr., William T.	1	2	1	2					
985	<u>75) DeGeorge Financial Corporation</u>					<u>75) Rottlund Co.</u>				
	Getzler, Herbert L.	1	2	2	2	Rued, Scott D.	1	1	1	2
	Pascali, P. Peter	1	2	1	2	Doyle, Dennis J.	1	2	1	2
	Warren, John H.	1	2	1	2					

Appendix E

Alphabetical List of All Audit Committee Directors

Alphabetical List of All Audit Committee Directors

449 director positions held by 442 individuals:

6 individuals held a total of 13 director positions

	DIRECTOR CO. No.	V = Violator <u>N = Non Violator</u>
Adler, David H.	56	V
Allen, Charles R.	52	N
Ames, Evan B.	55	V
Andersen, G. Chris	39	V
Appelle, Harvey, A.	57	V
Aprahamian, Ronald V.	55	N
Apsey, Clive A.	32	V
Arnold III, A. Alexander	45	V
Arthur, John M.	38	V
Ascher, Jr., Charles J.	4	V
Asen, R. Scott	44	N
Augsburger, Robert R.	35	N
Augustine, Norman R.	9	N
Baldwin, David M.	23	N
Barre, Stephen A.	73	N
Barry, III, John J.	69	N
Baruch, Steven	56	N
Bass, Barbara	28	N
Battle, A. George	37	N
Beaubien, J. P. Luc	35	V
Benenson, Charles B.	1	N
Bergman, Walter W.	14	N
Berlekamp, Elwyn	44	V
Berman, Harris A.	66	N
Bernstein, Howard	62	N
Blalack, Charles M.	12	V
Blissenbach, Henry F.	48	N
Bower, Charles W.	13	N
Bowles, Barbara L.	9	N
Brantman, Frank	71	V
Bray, Doris R.	27	N
Brennan, Robert E.	64	V
Brous, Howard D.	72	V
Brown, R. Gene	12	V
Brown, Stillman B.	10	N
Brueck, Robert L.	68	N

Buffett, Thomas V.	10	V
Bullion, John Howell	48	N
Cable, Thomas J.	60	N
Caligiuri, Joseph F.	52	N
Candlish, Malcom	9	N
Carman, Carl D.	58	N
Carr, William R.	67	V
Casey, John T.	70	V
Caspari, Manfred	7	N
Cheramy, Edward R.	15	V
Cheyeyl, Stephen	30	N
Claflin II, Thomas M.	51	N
Clarke, Robert S.	71	V
Clayton, James L.	8	N
Clegg, C. Stephen	26	N
Cohen, Harvey	30	V
Cohen, Joseph M.	15	V
Cole, Dr. Thomas W.	6	N
Collins, Joseph J.	15	N
Congdon, Marsha B.	20	N
Cook, Robert E.	18	V
Cooley, Richard P.	64	N
Costle, Douglas M.	38	N
Cotsen, Lloyd E.	23	V
Cowen, Scott S.	43	V
Crawford, Purdy	8	V
Croonquist, David G.	46	N
Crowley, James W.	65	N
Cruess, Richard L.	23	N
Crystal, James W.	57	V
Cusick, Thomas A.	47	N
D'Amore, Richard A.	54	N
Day, Patrick J.	51	V
Deal Jr., James D.	53	N
DeConcini, Dennis W.	62	V
Delaney, Charles J.	32	V
DePamphilis, Bert	19	V
Desaigoudar, Chan	50	V
Devening, R. Randolph	43	N
Dickson, Reginald D.	8	N
Dimitriadis, Andre C.	48	V
Dixon, Donald B.	27	V

Doll, Dixon R.	42	V
Donachie, Robert J.	18	V
Donnelley, T. Barnes	1	V
Doyle, Dennis J.	75	N
Doyle, John L.	12	N
Dudhia, Ismael	50	N
Duffey, K. Lyle	39	N
Duffy, Edward W.	6	V
Dugan, Edward F.	34	N
Dworman, Alvin	31	N
Dyer, Daniel	40	N
Eckmann, Harold A.	6	V
Egdahl, Richard H.	66	N
Egide, James A.	45	N
Eichhorn, Richard E	21	N
Einspruch, Norman G.	59	N
Elftmann, Joel A.	54	N
Elson, Charles M.	9	V
Elwick, Keith D.	46	N
Emerson, H. Garfield	34	V
Esanu, Warren H.	72	V
Evans, Ben	11	N
Fairbanks, Richard M.	7	N
Favia, James	71	N
Feddersen, Donald W.	17	V
Feder, Allan A.	25	N
Feldman, Herbert H.	72	V
Fergenson, A. Leon	31	N
Fiebiger, James R.	20	N
Fielitz, Bruce D.	29	V
Filipowski, Andrew J.	20	V
Fink, Daniel J.	52	N
Finn, John F.	3	N
Finnegan, Lawrence J.	22	N
Firstenberg, Jean	56	N
Fisher, Joseph K.	64	V
Fishman, Maurice	27	V
Flach, James R.	33	V
Fleishman, Joel L.	4	V
Flournoy, Houston I.	29	N
Fogelsong, Norman A.	16	N
Fowler, William G.	36	N

Frankenberg, Robert J.	5	V
Franta, William R.	68	N
Frick, James W.	6	V
Fried, Franklin E.	15	V
Fries, J. Robert	39	N
Fruge, Don L.	43	N
Fruitman, Frederick H.	47	V
Gardner, G. Tilton	33	N
Gaulden, Leslie W.	27	N
Geishecker, John A.	41	N
Gerard, Fred N.	67	N
Gerbig, Robert L.	3	N
Getzler, Herbert L.	75	V
Gfeller, Warren H.	32	N
Gilbert, Jr., Jarobin	8	V
Gilchrist, M. Ian G.	64	N
Giordano, John	40	V
Goldfarb, Martin	34	V
Gottlieb, Myron I.	34	V
Gotto, Jr., Antonio M.	4	N
Grayson, C. Jackson	2	N
Greenberg, Stephen D.	25	N
Greenes, Robert	56	N
Greyser, Stephen A.	1	V
Gries, Robert D.	56	V
Griffith, G. Kay	73	V
Groves, Ray J.	5	N
Gumberg, Ira J.	43	V
Guttag, Jim V.	11	N
Guzy, D. James	68	V
Haas, Warren R.	22	V
Haglund, Bruce H.	74	V
Halevy, Irving	72	N
Halprin, Stephen E.	33	V
Hamilton, William F.	36	V
Hansen, Richard A.	65	V
Harris, William W.	44	V
Hassenfelt, Stephen C.	27	V
Hawk, Robert C.	16	V
Heckmann, Richard J.	2	V
Heilman, M. Stephen	51	N
Heimbuch, Babette	23	V

Heizer, Jr., E. F.	31	V
Henderson, Robert P.	21	V
Hendrickson, E. Mason	39	N
Henning, Thomas E.	58	V
Hernandez, Roland A.	13	N
Herndon, Noah T.	24,51	N, N
Herzlinger, Regina E.	3	N
Hiatt, Thomas A.	53	V
Hill, George R.	60	N
Hills, Roderick M.	2	V
Hoak, Jr., James M.	28	V
Hodge, Robert E.	52	V
Holiday, Jr., Harry	26	N
Holl, Robert A.	16	V
Holland, John B.	8	N
Holloran, Thomas E.	4	N
Hopkins, Jr., David L.	6	N
Hopping, Kenneth H.	60	N
Horowitz, Harvey	57	V
Horsch, Lawrence L.	4	V
Hughey, III, G. William	53	N
Hull, M. Blair	37	N
Hunt, Ray L.	5	N
Huyke, Richard Reiss	49	V
Hymans, Saul H.	41	N
Incarnati, Philip A.	3	V
Ingari, Frank A.	37	V
Jackson, Robert S.	28	N
Jackson, Shirley A.	22	V
Johnson, Charles A.	61	V
Johnson, Clifford R.	13	V
Kaiser, James G.	10	N
Kalman, C. Arnold	60	V
Kania, Jr., Edwin M.	41	V
Kaplan, Steven F.	66	V
Kaufman, Michael D.	44	N
Kelly, Gaynor N.	7	N
Kemper, David W.	70	N
Kempton, George R.	39	N
Kimmel, Jeanette C.	27	N
Kinch, William M.	35	V
Kinder, Richard D.	2	V

King, Frank W.	30	N
Knorp, Albert F.	14	V
Knowles, Christopher G.	19	N
Knuckles, Barbara M.	8	N
Koch, James L.	14	V
Kopchinsky, Gregory	69	V
Kramer, Paul	34	N
Krasney, Samuel	43	V
Kraus, Eileen S.	10	N
Krauser, Charles R.	49	V
Kremser, David A.	70	V
Kristol, Howard G.	9	V
Kuli, Alexander S.	69	N
LaHaye, Frank W. T.	61	N
Lane, III, William H.	61	N
Lane, Wendy E.	24	N
Lanstein, Ronald J.	37	N
Larsen, Thomas R.	58	V
Lavin, William K.	17	N
Lay, B. Allen	16	V
Leach, J. Frank	31	V
Leblois, Axel	40	V
Leffler, Robert V.	32	N
Leisz, George W.	24	V
Levison, Walter J.	44	N
Lewis, Daniel C.	74	V
Light, Dorthy K.	22	V
Lightcap, William T.	74	N
Likins, Peter William	42	N
Lin, Grace Chin-Hsin	51	V
Lonergan, William R.	66	V
Lovely, William C.	65	V
Low, Paul R.	54	N
Lowe, Philip Leo	12	N
Lucas, Donald Leo	18	N
Lucchino, Frank J.	26	V
Lynch, John T	70	V
Lynch, F. James	67	V
Lynham, C. Richard	52	V
Mackowski, John J.	8	V
MacLaury, Bruce King	26	V
Mann, Michael Martin	33	N

Martin, III, Frank A.	55	N
Matthews, Gilbert E.	24	V
Mauer, David M.	25	N
Mayo, Gerald E.	3	V
McCarthy, Dennis	73	N
McDonnell, Thomas A.	14	V
McDowell, John E.	21	V
McEwen, Richard W.	73	V
McGregor, Jack E.	22	N
McGurk, Dan L.	33,67	N, N
McKeague, Gordon C.	12	N
McKenzie, Sally F.	28	V
McNally, IV, Andrew	13	V
McNerney, Jr., W. James	10	N
McQuade, Lawrence C.	36	N
Megarry, A. Roy	28	N
Melton, William N.	5	V
Messman, Jack L.	42	N
Meyercord, Wade	50	V
Meyers, Jr., F. Gibson	58	N
Migliorino, Robert	69	V
Mihaylo, Stephen G.	54	V
Miller, Robert S.	14	N
Miller, William R.	6	N
Mills, Christopher H. B.	24	V
Milnes, Arthur G.	10	V
Mirza, M. Yaqub	50	N
Modlin, Howard S.	56	N
Moffett, William E.	38	V
Money, Edward A.	33	N
Moran, Gordon W.	24	N
Morgan, Howard L.	44,61	V, N
Morris, John Woodland	38	N
Morris, Joseph	55	V
Morrisroe, David W.	29	N
Mortimer, Jr., Henry T.	57	N
Moses, Joel	12	N
Napier, James V.	3	V
Neivert, Phillip	11	V
Nelson, IV, William George	66	N
Nelson, Jr., Robert Earl	55	V
Neubert, John J.	65	N

Newlin, Michael H.	59	N
Newman, Charles	41	N
Newman, Frank A.	43	V
Nicholas, Jr., N.J.	4	V
Nichols, William B.	63	V
Niles, Clayton E.	28	N
Nisbet, W. Samuel	60	V
Offerdahl, Richard E.	21	N
O'Grady, James F.	34	N
Olson, Edward R.	59	V
Orthwein, Peter B.	46	V
Overbeck, Joseph C.	52	V
Owens, Jr., Charles V.	48	N
Pallmer, Russell E.	42	N
Pampel, Roland D.	40	V
Pascali, P. Peter	75	V
Patterson, Patricia S.	57	N
Peden, Katherine Graham.	6	N
Peretto, Michael J.	38	V
Perfit, Burton C.	1	V
Peter, Albert F.	21	V
Peters, Frank C.	65	N
Peterson, Jr., DuWayne J.	42	V
Peth, John W.	16, 35	N, N
Pezzillo, Albert R.	25	V
Phillips III, John Temple	53	N
Phipps, John E.	6	V
Piccirilli, Joseph	73	V
Pierpoint, William L.	23	V
Pontikes, Kenneth N.	28	V
Pope, John C.	2	V
Pounds, William F.	41	V
Price, Jr., Edward O.	63	V
Puth, John W.	20	V
Raben, Bruce I.	39	V
Rammler, David H.	60	N
Ray, Jr., John T.	10	V
Rehard, Thomas M.	67	N
Reinhold, Walter B.	11	N
Reitman, Norman	30	V
Riccio, Ronald J.	64	V
Rice, Linda Johnson	7	V

Richardson, Elliot L.	24	V
Rinaldi, Herbert M.	23	N
Roberts, Brian L.	15	N
Robertson, Jerry E.	3	N
Robinson, Jr., John H.	70	N
Roby, Joe L.	12	V
Ross, Dickinson C.	29	N
Ross, Jules	74	N
Rued, Scott D.	75	N
Rutter, William T.	9	V
Sachs, David A.	39	V
Sargent, Joseph D.	17	V
Sarlos, Andrew	34	V
Sarney, George W.	22	N
Sayford, Richard B.	67	V
Scalise, George M.	18	N
Schall, Richard L.	4	N
Schneider, Howard M.	59	N
Schneider, Richard A.	73	N
Schneiderman, Herbert	71	N
Schoen, Kenneth A.	68	N
Schube, Stuart	50	V
Schuler, Jack W.	4	N
Schulte, David M.	11	N
Schwab II, David E.	49	N
Scott, Gloria R.	1	N
Scott, John S.	10	N
Seibels, John P.	17	V
Seifert, William	36	V
Shapiro, E. Donald	51	V
Shelton, James C.	73	N
Shelton, Larry B.	57	N
Shifftan, Ronald	62	N
Shockey, Marcy H.	53	V
Shuster, Joseph M.	46	N
Siegel, Alan	46	V
Silverman, Cecile	63	N
Singh, Inder M.	50	N
Smith, Anthony C.	29	V
Smith, Lonnie M.	40	N
Smith, Michael A.	19	N
Smith, Scott C.	5	V

Smith, Thomas C.	58	V
Smith, Thomas A.	61	V
Sosa, Enrique J.	5	N
Sparks, Harold N.	19	V
Spence, J. Stanford	65	N
Speziale, A. John	60	N
Spurlock, Earle P.	53	N
Stalon, Charles G.	22	V
Stanley, David	21	N
Stanton, Frank	25	V
Stanton, James V.	62	V
Steingraber, Fred G.	13	V
Stemler, Joseph	23	V
Stinson, George A.	26	N
Stone, C. Scott	45	N
Storey, James W.	66	V
Strangis, Ralph	47	N
Sullivan, Fred R.	31	N
Swalin, Richard A.	4	N
Swanky, Kalvan	63	N
Taub, Henry	11	V
Taylor, Thomas T.	60	V
Terkowitz, Ralph S.	37	V
Thielen, Michel C.	64	N
Thomas, Lee M.	7	N
Thorsen, Thomas O.	11	N
Tobin, John E.	17	N
Toohey, Thomas B.	22	V
Towell, Anthony P.	71	N
Trivelpiece, Alvin W.	7	V
Trotman, Stanley S.	29	V
Troubh, Raymond S.	49	N
Trub, Richard G.	17	V
Tsai, Jr., Gerald	11, 31, 49	V, N, N
Tucker, Gordon	72	N
Tucker, Robert A.	13	N
Tulchin, Stanley	25	N
Turner, William C.	54	V
Unkles, Jr., John J.	22	V
Van Roijen, Jr., Robert D.	36	N
VanLunvane, Donald	68	V
Verderico, Patrick	68	V

Walden, William L.	53	N
Walker, Dianne C.	54	V
Walker, Jr., William T.	74	V
Walsh, Joseph M.	47	V
Warren, John H.	75	V
Watts, II, Charles H.	13	N
Weaver, Donna L.	43	N
Weaver, Lawrence C.	48	N
Weaver, William N.	20	V
Wegmiller, Donald C.	3	V
Weisgal, Solomon A.	53	V
Wetherbee, Michael J.	53	N
White, Mark W.	70	V
Whitman, Marina v.N.	2	N
Wicklender, Philip J.	13	V
Wilhelm, David C.	45	V
Will, James F.	17	N
Willmott, Peter S.	2	N
Wolf, Adam E.	39	V
Wolf, Hans A.	35,42	V, N
Wolfe, Kenneth L.	7	V
Wollaeger, Timothy J.	40	N
Woodward, M. Cabell	9	N
Woolley, Kenneth M,	45	N
Wyckoff, T. Evans	26	N
Yansouni, Cyril J.	14	V
Zimmerman, Fredrick M.	68	N
Zimmerman, Richard A.	6	N

Appendix F

Alphabetical List of Audit Committee Directors

AICPA Classification

From: JWalker@AICPA.ORG
 To: lrager@francis.edu
 Date sent: Wed, 25 Jul 2001 13:16:56 -0400
 Subject: Re: Certified Audit Committee Directors

Mr. Rager:

I just finished getting the information for your List of Audit Committee Directors and I am attaching the information for you. Per Chuck Landes, the only information that you needed was whether or not the committee directors were members of the AICPA. If you need more information, please let me know.

Thank you.

(See attached file: List of Directors.xls)

Jackie Walker
 Administrative Assistant
 American Institute of CPAs
 Professional Standards and Services Team - NY
 Phone: 212-596-6033
 Fax: 212-596-6064
 E-mail: jwalker@aicpa.org

larfal@scotus.f
 rancis.edu To: JWalker@AICPA.ORG

cc:

07/25/01 11:01 Subject: Certified AM
 Audit Committee Directors
 Please respond
 to lrager

Dear Ms. Walker,
 I am following up with reference to the research on Certified Audit Committee Directors which Chuck Landes forwarded to you last month. I am trying to get an estimate of when the information might be available or if I need to provide any addition data to facilitate your assistance. I have received the reviewed list from the Institute of Internal Auditors and expect the same from the Institute of Management Accountants soon.

I appreciate your assistance.

Regards,

Larry A. Rager
 Assistant Professor of Accounting
 Department of Business Administration
 Saint Francis University
 P.O. Box 600
 Loretto, PA 15940-0600
 (814) 472-3074

Alphabetical List of Audit Committee Directors

AICPA Classified List of Directors

449 director positions held by 442 individuals:

6 individuals held a total of 13 director positions

	AICPA Member
	<u>yes or no</u>
Adler, David H.	no
Allen, Charles R.	yes
Ames, Evan B.	no
Andersen, G. Chris	no
Appelle, Harvey, A.	no
Aprahamian, Ronald V.	no
Apsey, Clive A.	no
Arnold III, A. Alexander	no
Arthur, John M.	no
Ascher, Jr., Charles J.	no
Asen, R. Scott	no
Augsburger, Robert R.	no
Augustine, Norman R.	no
Baldwin, David M.	no
Barre, Stephen A.	yes
Barry, III, John J.	no
Baruch, Steven	yes
Bass, Barbara	no
Battle, A. George	no
Beaubien, J. P. Luc	no
Benenson, Charles B.	no
Bergman, Walter W.	no
Berlekamp, Elwyn	no
Berman, Harris A.	no
Bernstein, Howard	no
Blalack, Charles M.	no
Blissenbach, Henry F.	no
Bower, Charles W.	no
Bowles, Barbara L.	no
Brantman, Frank	no
Bray, Doris R.	no
Brennan, Robert E.	yes
Brous, Howard D.	no
Brown, R. Gene	no
Brown, Stillman B.	no
Brueck, Robert L.	no

Buffett, Thomas V.	no
Bullion, John Howell	no
Cable, Thomas J.	no
Caligiuri, Joseph F.	no
Candlish, Malcom	no
Carman, Carl D.	no
Carr, William R.	yes
Casey, John T.	no
Caspari, Manfred	no
Cheramy, Edward R.	yes
Cheyeyl, Stephen	no
Claflin II, Thomas M.	no
Clarke, Robert S.	no
Clayton, James L.	no
Clegg, C. Stephen	no
Cohen, Harvey	yes
Cohen, Joseph M.	no
Cole, Dr. Thomas W.	no
Collins, Joseph J.	yes
Congdon, Marsha B.	no
Cook, Robert E.	no
Cooley, Richard P.	no
Costle, Douglas M.	no
Cotsen, Lloyd E.	no
Cowen, Scott S.	no
Crawford, Purdy	no
Croonquist, David G.	no
Crowley, James W.	no
Cruess, Richard L.	no
Crystal, James W.	no
Cusick, Thomas A.	no
D'Amore, Richard A.	no
Day, Patrick J.	yes
Deal Jr., James D.	no
DeConcini, Dennis W.	no
Delaney, Charles J.	no
DePamphilis, Bert	no
Desaigoudar, Chan	no
Devening, R. Randolph	no
Dickson, Reginald D.	no
Dimitriadis, Andre C.	no
Dixon, Donald B.	no

Doll, Dixon R.	no
Donachie, Robert J.	no
Donnelley, T. Barnes	no
Doyle, Dennis J.	no
Doyle, John L.	no
Dudhia, Ismael	no
Duffey, K. Lyle	no
Duffy, Edward W.	no
Dugan, Edward F.	no
Dworman, Alvin	no
Dyer, Daniel	no
Eckmann, Harold A.	no
Egdahl, Richard H.	no
Egide, James A.	no
Eichhorn, Richard E	no
Einspruch, Norman G.	no
Elftmann, Joel A.	no
Elson, Charles M.	no
Elwick, Keith D.	no
Emerson, H. Garfield	no
Esanu, Warren H.	no
Evans, Ben	yes
Fairbanks, Richard M.	no
Favia, James	no
Feddersen, Donald W.	no
Feder, Allan A.	no
Feldman, Herbert H.	yes
Fergenson, A. Leon	no
Fiebiger, James R.	no
Fielitz, Bruce D.	no
Filipowski, Andrew J.	no
Fink, Daniel J.	no
Finn, John F.	no
Finnegan, Lawrence J.	no
Firstenberg, Jean	no
Fisher, Joseph K.	no
Fishman, Maurice	no
Flach, James R.	no
Fleishman, Joel L.	no
Flournoy, Houston I.	no
Fogelsong, Norman A.	no
Fowler, William G.	no

Frankenberg, Robert J.	no
Franta, William R.	no
Frick, James W.	no
Fried, Franklin E.	no
Fries, J. Robert	yes
Fruge, Don L.	no
Fruitman, Frederick H.	no
Gardner, G. Tilton	no
Gaulden, Leslie W.	no
Geishecker, John A.	no
Gerard, Fred N.	no
Gerbig, Robert L.	no
Getzler, Herbert L.	no
Gfeller, Warren H.	yes
Gilbert, Jr., Jarobin	no
Gilchrist, M. Ian G.	no
Giordano, John	no
Goldfarb, Martin	no
Gottlieb, Myron I.	no
Gotto, Jr., Antonio M.	no
Grayson, C. Jackson	yes
Greenberg, Stephen D.	yes
Greenes, Robert	no
Greyser, Stephen A.	no
Gries, Robert D.	no
Griffith, G. Kay	no
Groves, Ray J.	yes
Gumberg, Ira J.	no
Guttag, Jim V.	no
Guzy, D. James	no
Haas, Warren R.	no
Haglund, Bruce H.	no
Halevy, Irving	nno
Halprin, Stephen E.	no
Hamilton, William F.	no
Hansen, Richard A.	yes
Harris, William W.	no
Hassenfelt, Stephen C.	yes
Hawk, Robert C.	yes
Heckmann, Richard J.	no
Heilman, M. Stephen	no
Heimbuch, Babette	yes

Heizer, Jr., E. F.	no
Henderson, Robert P.	no
Hendrickson, E. Mason	no
Henning, Thomas E.	no
Hernandez, Roland A.	nno
Herndon, Noah T.	no
Herzlinger, Regina E.	no
Hiatt, Thomas A.	no
Hill, George R.	no
Hills, Roderick M.	no
Hoak, Jr., James M.	no
Hodge, Robert E.	yes
Holiday, Jr., Harry	no
Holl, Robert A.	no
Holland, John B.	no
Holloran, Thomas E.	no
Hopkins, Jr., David L.	no
Hopping, Kenneth H.	no
Horowitz, Harvey	no
Horsch, Lawrence L.	no
Hughey, III, G. William	no
Hull, M. Blair	no
Hunt, Ray L.	no
Huyke, Richard Reiss	no
Hymans, Saul H.	no
Incarnati, Philip A.	no
Ingari, Frank A.	no
Jackson, Robert S.	no
Jackson, Shirley A.	no
Johnson, Charles A.	no
Johnson, Clifford R.	no
Kaiser, James G.	no
Kalman, C. Arnold	no
Kania, Jr., Edwin M.	no
Kaplan, Steven F.	no
Kaufman, Michael D.	no
Kelly, Gaynor N.	no
Kemper, David W.	no
Kempton, George R.	no
Kimmel, Jeanette C.	no
Kinch, William M.	no
Kinder, Richard D.	no

King, Frank W.	no
Knorp, Albert F.	no
Knowles, Christopher G.	no
Knuckles, Barbara M.	no
Koch, James L.	no
Kopchinsky, Gregory	no
Kramer, Paul	no
Krasney, Samuel	no
Kraus, Eileen S.	no
Krauser, Charles R.	no
Kremser, David A.	no
Kristol, Howard G.	no
Kuli, Alexander S.	no
LaHaye, Frank W. T.	no
Lane, III, William H.	yes
Lane, Wendy E.	no
Lanstein, Ronald J.	no
Larsen, Thomas R.	no
Lavin, William K.	yes
Lay, B. Allen	no
Leach, J. Frank	yes
Leblois, Axel	no
Leffler, Robert V.	no
Leisz, George W.	no
Levison, Walter J.	no
Lewis, Daniel C.	no
Light, Dorthy K.	no
Lightcap, William T.	yes
Likins, Peter William	no
Lin, Grace Chin-Hsin	no
Lonergan, William R.	no
Lovely, William C.	no
Low, Paul R.	no
Lowe, Philip Leo	no
Lucas, Donald Leo	no
Lucchino, Frank J.	no
Lynch, John T	no
Lynch, F. James	no
Lynham, C. Richard	no
Mackowski, John J.	no
MacLaury, Bruce King	no
Mann, Michael Martin	no

Martin, III, Frank A.	no
Matthews, Gilbert E.	no
Mauer, David M.	no
Mayo, Gerald E.	no
McCarthy, Dennis	on
McDonnell, Thomas A.	on
McDowell, John E.	no
McEwen, Richard W.	nono
McGregor, Jack E.	no
McGurk, Dan L.	no
McKeague, Gordon C.	no
McKenzie, Sally F.	no
McNally, IV, Andrew	yes
McNerney, Jr., W. James	no
McQuade, Lawrence C.	no
Megarry, A. Roy	no
Melton, William N.	no
Messman, Jack L.	no
Meyercord, Wade	nono
Meyers, Jr., F. Gibson	on
Migliorino, Robert	ono
Mihaylo, Stephen G.	no
Miller, Robert S.	yes
Miller, William R.	yes
Mills, Christopher H. B.	no
Milnes, Arthur G.	no
Mirza, M. Yaqub	no
Modlin, Howard S.	no
Moffett, William E.	no
Money, Edward A.	yes
Moran, Gordon W.	no
Morgan, Howard L.	no
Morris, John Woodland	yes
Morris, Joseph	yes
Morrisroe, David W.	no
Mortimer, Jr., Henry T.	no
Moses, Joel	no
Napier, James V.	no
Neivert, Phillip	no
Nelson, IV, William George	yes
Nelson, Jr., Robert Earl	yes
Neubert, John J.	no

Newlin, Michael H.	no
Newman, Charles	yes
Newman, Frank A.	yes
Nicholas, Jr., N.J.	no
Nichols, William B.	no
Niles, Clayton E.	no
Nisbet, W. Samuel	no
Offerdahl, Richard E.	no
O'Grady, James F.	no
Olson, Edward R.	no
Orthwein, Peter B.	no
Overbeck, Joseph C.	no
Owens, Jr., Charles V.	no
Pallmer, Russell E.	no
Pampel, Roland D.	no
Pascali, P. Peter	no
Patterson, Patricia S.	no
Peden, Katherine Graham.	no
Peretto, Michael J.	no
Perfit, Burton C.	no
Peter, Albert F.	no
Peters, Frank C.	no
Peterson, Jr., DuWayne J.	no
Peth, John W.	yes
Pezzillo, Albert R.	no
Phillips III, John Temple	no
Phipps, John E.	no
Piccirilli, Joseph	no
Pierpoint, William L.	yes
Pontikes, Kenneth N.	no
Pope, John C.	yes
Pounds, William F.	no
Price, Jr., Edward O.	no
Puth, John W.	no
Raben, Bruce I.	no
Rammler, David H.	no
Ray, Jr., John T.	no
Reahard, Thomas M.	no
Reinhold, Walter B.	no
Reitman, Norman	no
Riccio, Ronald J.	no
Rice, Linda Johnson	no

Richardson, Elliot L.	no
Rinaldi, Herbert M.	no
Roberts, Brian L.	no
Robertson, Jerry E.	no
Robinson, Jr., John H.	no
Roby, Joe L.	no
Ross, Dickinson C.	nno
Ross, Jules	no
Rued, Scott D.	no
Rutter, William T.	yes
Sachs, David A.	no
Sargent, Joseph D.	no
Sarlos, Andrew	no
Sarney, George W.	no
Sayford, Richard B.	no
Scalise, George M.	no
Schall, Richard L.	no
Schneider, Howard M.	no
Schneider, Richard A.	no
Schneiderman, Herbert	no
Schoen, Kenneth A.	no
Schube, Stuart	no
Schuler, Jack W.	no
Schulte, David M.	no
Schwab II, David E.	no
Scott, Gloria R.	no
Scott, John S.	yes
Seibels, John P.	no
Seifert, William	no
Shapiro, E. Donald	no
Shelton, James C.	no
Shelton, Larry B.	no
Shiftan, Ronald	no
Shockey, Marcy H.	no
Shuster, Joseph M.	no
Siegel, Alan	yes
Silverman, Cecile	no
Singh, Inder M.	no
Smith, Anthony C.	yes
Smith, Lonnie M.	no
Smith, Michael A.	yes
Smith, Scott C.	no

Smith, Thomas C.	yes
Smith, Thomas A.	yes
Sosa, Enrique J.	no
Sparks, Harold N.	no
Spence, J. Stanford	no
Speziale, A. John	no
Spurlock, Earle P.	no
Stalon, Charles G.	no
Stanley, David	no
Stanton, Frank	no
Stanton, James V.	no
Steingraber, Fred G.	no
Stemler, Joseph	no
Stinson, George A.	no
Stone, C. Scott	yes
Storey, James W.	no
Strangis, Ralph	no
Sullivan, Fred R.	no
Swalin, Richard A.	no
Swanky, Kalvan	no
Taub, Henry	no
Taylor, Thomas T.	yes
Terkowitz, Ralph S.	no
Thielen, Michel C.	no
Thomas, Lee M.	no
Thorsen, Thomas O.	no
Tobin, John E.	no
Toohey, Thomas B.	yes
Towell, Anthony P.	no
Trivelpiece, Alvin W.	no
Trotman, Stanley S.	no
Troubh, Raymond S.	no
Trub, Richard G.	no
Tsai, Jr., Gerald	no
Tucker, Gordon	no
Tucker, Robert A.	no
Tulchin, Stanley	no
Turner, William C.	no
Unkles, Jr., John J.	no
Van Roijen, Jr., Robert D.	no
VanLunvane, Donald	no
Verderico, Patrick	yes

Walden, William L.	no
Walker, Dianne C.	no
Walker, Jr., William T.	no
Walsh, Joseph M.	yes
Warren, John H.	yes
Watts, II, Charles H.	no
Weaver, Donna L.	no
Weaver, Lawrence C.	no
Weaver, William N.	no
Wegmiller, Donald C.	no
Weisgal, Solomon A.	yes
Wetherbee, Michael J.	no
White, Mark W.	no
Whitman, Marina v.N.	no
Wicklender, Philip J.	no
Wilhelm, David C.	no
Will, James F.	no
Willmott, Peter S.	no
Wolf, Adam E.	no
Wolf, Hans A.	no
Wolfe, Kenneth L.	no
Wollaeger, Timothy J.	no
Woodward, M. Cabell	yes
Woolley, Kenneth M,	no
Wyckoff, T. Evans	no
Yansouni, Cyril J.	no
Zimmerman, Fredrick M.	no
Zimmerman, Richard A.	yes

Appendix G

Alphabetical List of Audit Committee Directors

Institute of Internal Auditors (IIA)

Certification List

Date sent: Wed, 11 Jul 2001 13:59:48 -0400
From: Pete Orsburn <POrsburn@TheIIA.Org>
Subject: RE: REQUESTING HELP IN IDENTIFYING AUDIT COMMITTEE MEMBERS WHO ARE CERTIFIED - Certified Audit Committee Directors
To: lrager@francis.edu

Larry,

Attached is your list with 4 potential matches shown. Since we couldn't always be sure of the match, we provided the city of the CIA.

Regards,

Pete

-----Original Message-----

From: Larry A Rager [mailto:larfa1@scotus.francis.edu]
Sent: Monday, June 25, 2001 2:09 PM
To: POrsburn@pop.theia.org
Subject: REQUESTING HELP IN IDENTIFYING AUDIT COMMITTEE MEMBERS WHO ARE CERTIFIED - Certified Audit Committee Directors

Mr. Osborn,
Approximately two years ago Wendy Acha of the IIA gave me your name to contact regarding a portion of my dissertation research. My research relates to the impact of audit committee directors with accounting certifications such as CIA, CPA, or CMA. My hypotheses is that the presence of such trained/certified audit committee members of publicly traded organizations, will reduce the incidents of management reporting irregularities.

By matching audit committees of similar SIC code, Stock Exchange and relative market capitalization, I have generated a list of violating and nonviolating audit committee members. I am trying to determine if any of the 442 names in the attached Excel file are CIA certified.

The AICPA is currently checking their membership against the list and I will also be forwarding the list to the IMA to check against their membership.

If possible I would appreciate your assistance in this effort to identify any of the audit committee members who hold a professional certification.

Thank you for your assistance.

Larry Rager

Larry A. Rager
Assistant Professor of Accounting
Department of Business Administration
Saint Francis College
P.O. Box 600
Loretto, PA 15940-0600
(814) 472-3074
lrager@sfcpa.edu

Alphabetical List of Audit Committee Directors
Institute of Internal Auditors (IIA) Certified List

449 director positions held by 442 individuals:

6 individuals held a total of 13 director positions

IIA Certified

Y or N

Adler, David H.	N
Allen, Charles R.	N
Ames, Evan B.	N
Andersen, G. Chris	N
Appelle, Harvey, A.	N
Aprahamian, Ronald V.	N
Apsey, Clive A.	N
Arnold III, A. Alexander	N
Arthur, John M.	N
Ascher, Jr., Charles J.	N
Asen, R. Scott	N
Augsburger, Robert R.	N
Augustine, Norman R.	N
Baldwin, David M.	N
Barre, Stephen A.	N
Barry, III, John J.	N
Baruch, Steven	N
Bass, Barbara	N
Battle, A. George	N
Beaubien, J. P. Luc	N
Benenson, Charles B.	N
Bergman, Walter W.	N
Berlekamp, Elwyn	N
Berman, Harris A.	N
Bernstein, Howard	N
Blalack, Charles M.	N
Blissenbach, Henry F.	N
Bower, Charles W.	N
Bowles, Barbara L.	N
Brantman, Frank	N
Bray, Doris R.	N
Brennan, Robert E.	N
Brous, Howard D.	N
Brown, R. Gene	N
Brown, Stillman B.	N
Brueck, Robert L.	N

Buffett, Thomas V.	N
Bullion, John Howell	N
Cable, Thomas J.	N
Caligiuri, Joseph F.	N
Candlish, Malcom	N
Carman, Carl D.	N
Carr, William R.	N
Casey, John T.	N
Caspari, Manfred	N
Cheramy, Edward R.	N
Cheyeyl, Stephen	N
Claflin II, Thomas M.	N
Clarke, Robert S.	N
Clayton, James L.	N
Clegg, C. Stephen	N
Cohen, Harvey	N
Cohen, Joseph M.	N
Cole, Dr. Thomas W.	N
Collins, Joseph J.	N
Congdon, Marsha B.	N
Cook, Robert E.	N
Cooley, Richard P.	N
Costle, Douglas M.	N
Cotsen, Lloyd E.	N
Cowen, Scott S.	N
Crawford, Purdy	N
Croonquist, David G.	N
Crowley, James W.	N
Cruess, Richard L.	N
Crystal, James W.	N
Cusick, Thomas A.	N
D'Amore, Richard A.	N
Day, Patrick J.	N
Deal Jr., James D.	N
DeConcini, Dennis W.	N
Delaney, Charles J.	N
DePamphilis, Bert	N
Desaigouard, Chan	N
Devening, R. Randolph	N
Dickson, Reginald D.	N
Dimitriadis, Andre C.	N
Dixon, Donald B.	N

Doll, Dixon R.	N
Donachie, Robert J.	N
Donnelley, T. Barnes	N
Doyle, Dennis J.	N
Doyle, John L.	N
Dudhia, Ismael	N
Duffey, K. Lyle	N
Duffy, Edward W.	N
Dugan, Edward F.	N
Dworman, Alvin	N
Dyer, Daniel	N
Eckmann, Harold A.	N
Egdahl, Richard H.	N
Egide, James A.	N
Eichhorn, Richard E	N
Einspruch, Norman G.	N
Elftmann, Joel A.	N
Elson, Charles M.	N
Elwick, Keith D.	N
Emerson, H. Garfield	N
Esanu, Warren H.	N
Evans, Ben	N
Fairbanks, Richard M.	N
Favia, James	N
Feddersen, Donald W.	N
Feder, Allan A.	N
Feldman, Herbert H.	N
Fergenson, A. Leon	N
Fiebiger, James R.	N
Fielitz, Bruce D.	N
Filipowski, Andrew J.	N
Fink, Daniel J.	N
Finn, John F.	N
Finnegan, Lawrence J.	N
Firstenberg, Jean	N
Fisher, Joseph K.	N
Fishman, Maurice	N
Flach, James R.	N
Fleishman, Joel L.	N
Flournoy, Houston I.	N
Fogelsong, Norman A.	N
Fowler, William G.	N

Frankenberg, Robert J.	N
Franta, William R.	N
Frick, James W.	N
Fried, Franklin E.	N
Fries, J. Robert	N
Fruge, Don L.	N
Fruitman, Frederick H.	N
Gardner, G. Tilton	N
Gaulden, Leslie W.	N
Geishecker, John A.	N
Gerard, Fred N.	N
Gerbig, Robert L.	N
Getzler, Herbert L.	N
Gfeller, Warren H.	N
Gilbert, Jr., Jarobin	N
Gilchrist, M. Ian G.	N
Giordano, John	N
Goldfarb, Martin	N
Gottlieb, Myron I.	N
Gotto, Jr., Antonio M.	N
Grayson, C. Jackson	N
Greenberg, Stephen D.	N
Greenes, Robert	N
Greyser, Stephen A.	N
Gries, Robert D.	N
Griffith, G. Kay	N
Groves, Ray J.	N
Gumberg, Ira J.	N
Guttag, Jim V.	N
Guzy, D. James	N
Haas, Warren R.	N
Haglund, Bruce H.	N
Halevy, Irving	N
Halprin, Stephen E.	N
Hamilton, William F.	N
Hansen, Richard A.	N
Harris, William W.	N
Hassenfelt, Stephen C.	N
Hawk, Robert C.	N
Heckmann, Richard J.	N
Heilman, M. Stephen	N
Heimbuch, Babette	N

Heizer, Jr., E. F.	N
Henderson, Robert P.	N
Hendrickson, E. Mason	N
Henning, Thomas E.	N
Hernandez, Roland A.	N
Herndon, Noah T.	N
Herzlinger, Regina E.	N
Hiatt, Thomas A.	N
Hill, George R.	N
Hills, Roderick M.	N
Hoak, Jr., James M.	N
Hodge, Robert E.	N
Holiday, Jr., Harry	N
Holl, Robert A.	N
Holland, John B.	N
Holloran, Thomas E.	N
Hopkins, Jr., David L.	N
Hopping, Kenneth H.	N
Horowitz, Harvey	N
Horsch, Lawrence L.	N
Hughey, III, G. William	N
Hull, M. Blair	N
Hunt, Ray L.	N
Huyke, Richard Reiss	N
Hymans, Saul H.	N
Incarnati, Philip A.	N
Ingari, Frank A.	N
Jackson, Robert S.	N
Jackson, Shirley A.	N
Johnson, Charles A.	Y
Johnson, Clifford R.	N
Kaiser, James G.	N
Kalman, C. Arnold	N
Kania, Jr., Edwin M.	N
Kaplan, Steven F.	N
Kaufman, Michael D.	N
Kelly, Gaynor N.	N
Kemper, David W.	N
Kempton, George R.	N
Kimmel, Jeanette C.	N
Kinch, William M.	N
Kinder, Richard D.	N

King, Frank W.	N
Knorp, Albert F.	N
Knowles, Christopher G.	N
Knuckles, Barbara M.	N
Koch, James L.	N
Kopchinsky, Gregory	N
Kramer, Paul	N
Krasney, Samuel	N
Kraus, Eileen S.	N
Krauser, Charles R.	N
Kremser, David A.	N
Kristol, Howard G.	N
Kuli, Alexander S.	N
LaHaye, Frank W. T.	N
Lane, III, William H.	Inactive
Lane, Wendy E.	N
Lanstein, Ronald J.	N
Larsen, Thomas R.	N
Lavin, William K.	N
Lay, B. Allen	N
Leach, J. Frank	N
Leblois, Axel	N
Leffler, Robert V.	N
Leisz, George W.	N
Levison, Walter J.	N
Lewis, Daniel C.	N
Light, Dorothy K.	N
Lightcap, William T.	N
Likins, Peter William	N
Lin, Grace Chin-Hsin	N
Lonergan, William R.	N
Lovely, William C.	N
Low, Paul R.	N
Lowe, Philip Leo	N
Lucas, Donald Leo	N
Lucchino, Frank J.	N
Lynch, John T	N
Lynch, F. James	N
Lynham, C. Richard	N
Mackowski, John J.	N
MacLaury, Bruce King	N
Mann, Michael Martin	N

Martin, III, Frank A.	N
Matthews, Gilbert E.	N
Mauer, David M.	N
Mayo, Gerald E.	N
McCarthy, Dennis	N
McDonnell, Thomas A.	N
McDowell, John E.	N
McEwen, Richard W.	N
McGregor, Jack E.	N
McGurk, Dan L.	N
McKeague, Gordon C.	N
McKenzie, Sally F.	N
McNally, IV, Andrew	N
McNerney, Jr., W. James	N
McQuade, Lawrence C.	N
Megarry, A. Roy	N
Melton, William N.	N
Messman, Jack L.	N
Meyercord, Wade	N
Meyers, Jr., F. Gibson	N
Migliorino, Robert	N
Mihaylo, Stephen G.	N
Miller, Robert S.	N
Miller, William R.	N
Mills, Christopher H. B.	N
Milnes, Arthur G.	N
Mirza, M. Yaqub	N
Modlin, Howard S.	N
Moffett, William E.	N
Money, Edward A.	N
Moran, Gordon W.	N
Morgan, Howard L.	N
Morris, John Woodland	N
Morris, Joseph	N
Morrisroe, David W.	N
Mortimer, Jr., Henry T.	N
Moses, Joel	N
Napier, James V.	N
Neivert, Phillip	N
Nelson, IV, William George	N
Nelson, Jr., Robert Earl	Y
Neubert, John J.	N

Newlin, Michael H.	N
Newman, Charles	N
Newman, Frank A.	N
Nicholas, Jr., N.J.	N
Nichols, William B.	N
Niles, Clayton E.	N
Nisbet, W. Samuel	N
Offerdahl, Richard E.	N
O'Grady, James F.	N
Olson, Edward R.	N
Orthwein, Peter B.	N
Overbeck, Joseph C.	N
Owens, Jr., Charles V.	N
Pallmer, Russell E.	N
Pampel, Roland D.	N
Pascali, P. Peter	N
Patterson, Patricia S.	N
Peden, Katherine Graham.	N
Peretto, Michael J.	N
Perfit, Burton C.	N
Peter, Albert F.	N
Peters, Frank C.	N
Peterson, Jr., DuWayne J.	N
Peth, John W.	N
Pezzillo, Albert R.	N
Phillips III, John Temple	N
Phipps, John E.	N
Piccirilli, Joseph	N
Pierpoint, William L.	N
Pontikes, Kenneth N.	N
Pope, John C.	N
Pounds, William F.	N
Price, Jr., Edward O.	N
Puth, John W.	N
Raben, Bruce I.	N
Rammler, David H.	N
Ray, Jr., John T.	N
Reahard, Thomas M.	N
Reinhold, Walter B.	N
Reitman, Norman	N
Riccio, Ronald J.	N
Rice, Linda Johnson	N

Richardson, Elliot L.	N
Rinaldi, Herbert M.	N
Roberts, Brian L.	N
Robertson, Jerry E.	N
Robinson, Jr., John H.	N
Roby, Joe L.	N
Ross, Dickinson C.	N
Ross, Jules	N
Rued, Scott D.	N
Rutter, William T.	N
Sachs, David A.	N
Sargent, Joseph D.	N
Sarlos, Andrew	N
Sarney, George W.	N
Sayford, Richard B.	N
Scalise, George M.	N
Schall, Richard L.	N
Schneider, Howard M.	N
Schneider, Richard A.	N
Schneiderman, Herbert	N
Schoen, Kenneth A.	N
Schube, Stuart	N
Schuler, Jack W.	N
Schulte, David M.	N
Schwab II, David E.	N
Scott, Gloria R.	N
Scott, John S.	N
Seibels, John P.	N
Seifert, William	N
Shapiro, E. Donald	N
Shelton, James C.	N
Shelton, Larry B.	N
Shifftan, Ronald	N
Shockey, Marcy H.	N
Shuster, Joseph M.	N
Siegel, Alan	N
Silverman, Cecile	N
Singh, Inder M.	N
Smith, Anthony C.	N
Smith, Lonnie M.	N
Smith, Michael A.	Y
Smith, Scott C.	N

Smith, Thomas C.	N
Smith, Thomas A.	N
Sosa, Enrique J.	N
Sparks, Harold N.	N
Spence, J. Stanford	N
Speziale, A. John	N
Spurlock, Earle P.	N
Stalon, Charles G.	N
Stanley, David	N
Stanton, Frank	N
Stanton, James V.	N
Steingraber, Fred G.	N
Stemler, Joseph	N
Stinson, George A.	N
Stone, C. Scott	N
Storey, James W.	N
Strangis, Ralph	N
Sullivan, Fred R.	N
Swalin, Richard A.	N
Swanky, Kalvan	N
Taub, Henry	N
Taylor, Thomas T.	N
Terkowitz, Ralph S.	N
Thielen, Michel C.	N
Thomas, Lee M.	N
Thorsen, Thomas O.	N
Tobin, John E.	N
Toohey, Thomas B.	N
Towell, Anthony P.	N
Trivelpiece, Alvin W.	N
Trotman, Stanley S.	N
Troubh, Raymond S.	N
Trub, Richard G.	N
Tsai, Jr., Gerald	N
Tucker, Gordon	N
Tucker, Robert A.	N
Tulchin, Stanley	N
Turner, William C.	N
Unkles, Jr., John J.	N
Van Roijen, Jr., Robert D.	N
VanLunvane, Donald	N
Verderico, Patrick	N

Walden, William L.	N
Walker, Dianne C.	N
Walker, Jr., William T.	N
Walsh, Joseph M.	N
Warren, John H.	N
Watts, II, Charles H.	N
Weaver, Donna L.	N
Weaver, Lawrence C.	N
Weaver, William N.	N
Wegmiller, Donald C.	N
Weisgal, Solomon A.	N
Wetherbee, Michael J.	N
White, Mark W.	N
Whitman, Marina v.N.	N
Wicklender, Philip J.	N
Wilhelm, David C.	N
Will, James F.	N
Willmott, Peter S.	N
Wolf, Adam E.	N
Wolf, Hans A.	N
Wolfe, Kenneth L.	N
Wollaeger, Timothy J.	N
Woodward, M. Cabell	N
Woolley, Kenneth M,	N
Wyckoff, T. Evans	N
Yansouni, Cyril J.	N
Zimmerman, Fredrick M.	N
Zimmerman, Richard A.	N

Appendix H
Institute of Certified Management Accountants (ICMA)
Certification List

From: Priscilla Payne <ppayne@imanet.org>
 To: "lrager@francis.edu" <lrager@francis.edu>
 Subject: RE: CMA/CFM Certified Audit Committee Directors
 Date sent: Thu, 26 Jul 2001 12:05:42 -0400

Larry:

We have completed the review and find only five people on the list who have earned CMA:

Scott S. Cowen ✓ #43
 William F. Hamilton ✓ #36
 Robert C. Hawk ✓ #16 (ALSO CPA)
 Thomas R. Larsen ✓ #58 (ALSO CPA)
 Donna L. Weaver N #43

I'm not sure this will be of any significance in your study but hope it helps.

Priscilla

Priscilla S. Payne, CMA
 Managing Director, ICMA

mailto:ppayne@imanet.org
 Voice: 800-638-4427, ext. 307
 Fax: 201-573-8438
<http://www.imanet.org/>

-----Original Message-----

From: Larry A Rager [mailto:larfal@scotus.francis.edu]
 Sent: Wednesday, July 25, 2001 11:06 AM
 To: Priscilla Payne
 Subject: RE: CMA/CFM Certified Audit Committee Directors

Priscilla,

I am following up on your email of July 11 to get an estimate of when the information regarding CMA/CFM Certified Audit Committee Directors might be available or if I need to provide any additional information to assist in your review of the list of directors.

I have received the reviewed list from the Institute of Internal Auditors and expect the same from the AICPA soon.

I appreciate your assistance.

Regards,

Larry A. Rager
 Assistant Professor of Accounting
 Department of Business Administration
 Saint Francis University
 P.O. Box 600
 Loretto, PA 15940-0600
 (814) 472-3074
lrager@sfcpa.edu

Appendix I

Literacy and Certification Classifications

The 400 Independent Audit Committee Directors

LITERACY AND CERTIFICATION CLASSIFICATIONS OF THE
400 INDEPENDENT AUDIT COMMITTEE DIRECTORS:

V1 = VIOLATOR COMPANY
 NV2 = NON VIOLATING COMPANY
 BL1 = BLUE RIBBON LITERATE
 NBL2 = NOT BLUE RIBBON LITERATE
 SL1 = STRICT LITERATE
 NSL2 = NOT STRICT LITERATE
 C1 = ACCOUNTING CERTIFIED
 NC2 = NOT ACCOUNTING CERTIFIED

VIOLATING COMPANY AUDIT COMMITTEE DIRECTORS

	<u>DIRECTOR</u>	<u>V1/ NV2</u>	<u>BL1/ NBL2</u>	<u>SL1/ NSL2</u>	<u>C1/ NC2</u>
1	Perfit, Burton C.	1	1	2	2
2	Donnelley, T. Barnes	1	1	2	2
3	Greyser, Stephen A.	1	2	2	2
4	Heckmann, Richard J.	1	1	2	2
5	Hills, Roderick M.	1	1	2	2
6	Kinder, Richard D.	1	1	2	2
7	Pope, John C.	1	1	1	1
8	Incarnati, Philip A.	1	1	2	2
9	Mayo, Gerald E.	1	1	1	2
10	Napier, James V.	1	1	2	2
11	Wegmiller, Donald C.	1	1	2	2
12	Ascher, Jr., Charles J.	1	1	2	2
13	Fleishman, Joel L.	1	1	2	2
14	Horsch, Lawrence L.	1	1	1	2
15	Smith, Scott C.	1	1	1	2
16	Frankenberg, Robert J.	1	1	2	2
17	Melton, William N.	1	1	2	2
18	Phipps, John E.	1	1	2	2
19	Eckmann, Harold A.	1	1	2	2
20	Frick, James W.	1	1	2	2
21	Duffy, Edward W.	1	1	2	2
22	Rice, Linda Johnson	1	1	2	2
23	Wolfe, Kenneth L.	1	1	1	2
24	Trivelpiece, Alvin W.	1	2	2	2
25	Gilbert, Jarobin Gilbert	1	1	2	2
26	Mackowski, John J.	1	1	2	2

27	Crawford, Purdy	1	1	2	2
28	Elson, Charles M.	1	2	2	2
29	Kristol, Howard G.	1	2	2	2
30	Rutter, William T.	1	1	1	1
31	Buffett, Thomas V.	1	1	2	2
32	Ray, Jr., John T.	1	1	2	2
33	Milnes, Arthur G.	1	2	2	2
34	Taub, Henry	1	1	2	2
35	Neivert, Phillip	1	1	2	2
36	Tsai, Jr., Gerald	1	1	2	2
37	Blalack, Charles M.	1	1	1	2
38	Brown, R. Gene	1	1	2	2
39	Roby, Joe L.	1	1	1	2
40	Johnson, Clifford R.	1	1	2	2
41	McNally, IV, Andrew	1	1	1	1
42	Steingraber, Fred G.	1	1	2	2
43	Wicklender, Philip J.	1	1	2	2
44	Koch, James L.	1	1	2	2
45	McDonnell, Thomas A.	1	1	1	2
46	Yansouni, Cyril J.	1	1	2	2
47	Fried, Franklin E.	1	1	2	2
48	Cohen, Joseph M.	1	1	2	2
49	Hawk, Robert C.	1	1	1	1
50	Holl, Robert A.	1	1	2	2
51	Lay, B. Allen	1	1	2	2
52	Trub, Richard G.	1	1	2	2
53	Sargent, Joseph D.	1	1	1	2
54	Feddersen, Donald W.	1	1	2	2
55	Seibels, John P.	1	1	2	2
56	Donachie, Robert J.	1	1	2	2
57	Cook, Robert E.	1	1	2	2
58	Sparks, Harold N.	1	1	2	2
59	DePamphilis, Bert	1	2	2	2
60	Filipowski, Andrew J.	1	1	2	2
61	Puth, John W.	1	1	2	2
62	Henderson, Robert P.	1	1	2	2
63	Stalon, Charles G.	1	1	2	2

64	Unkles, Jr., John J.	1	1	2	2
65	Light, Dorthy K.	1	1	2	2
66	Haas, Warren R.	1	1	2	2
67	Jackson, Shirley A.	1	2	2	2
68	Cotsen, Lloyd E.	1	1	2	2
69	Heimbuch, Babette	1	1	1	1
70	Pierpoint, William L.	1	1	1	1
71	Stemler, Joseph	1	1	2	2
72	Leisz, George W.	1	1	2	2
73	Matthews, Gilbert E.	1	1	2	2
74	Mills, Christopher H. B.	1	1	2	2
75	Richardson, Elliot L.	1	1	2	2
76	Pezzillo, Albert R.	1	1	2	2
77	Stanton, Frank	1	1	2	2
78	Lucchino, Frank J.	1	1	2	2
79	Mac Laury, Bruce K.	1	2	2	2
80	Hassenfelt, Stephen C.	1	1	1	1
81	Dixon, Donald B.	1	1	1	1
82	McKenzie, Sally F.	1	2	2	2
83	Hoak, Jr., James M.	1	1	2	2
84	Pontikes, Kenneth N.	1	1	2	2
85	Fielitz, Bruce D.	1	1	2	2
86	Smith, Anthony C.	1	1	1	1
87	Trotman, Stanley S.	1	1	2	2
88	Cohen, Harvey	1	1	1	1
89	Reitman, Norman	1	1	1	2
90	Heizer, Jr., E. F.	1	1	1	2
91	Leach, J. Frank	1	1	1	1
92	Apsey, Clive A.	1	1	2	2
93	Delaney, Charles J.	1	1	2	2
94	Halprin, Stephen E.	1	1	2	2
95	Emerson, H. Garfield	1	1	2	2
96	Goldfarb, Martin	1	1	2	2
97	Sarlos, Andrew	1	1	2	2
98	Beaubien, J. P. Luc	1	1	1	2
99	Kinch, William M.	1	1	2	2
100	Hamilton, William F.	1	1	1	1
101	Seifert, William	1	1	2	2

102	Ingari, Frank A.	1	1	2	2
103	Terkowitz, Ralph S.	1	1	2	2
104	Moffett, William E.	1	1	2	2
105	Arthur, John M.	1	1	2	2
106	Andersen, G. Chris	1	1	2	2
107	Raben, Bruce I.	1	1	2	2
108	Sachs, David A.	1	1	2	2
109	Wolf, Adam E.	1	1	2	2
110	Giordano, John	1	1	1	2
111	Leblois, Axel	1	1	2	2
112	Pampel, Roland	1	1	2	2
113	Kania, Jr., Edwin M.	1	1	2	2
114	Pounds, William F.	1	1	2	2
115	Doll, Dixon R.	1	1	2	2
116	Peterson, Jr., DuWayne J.	1	1	2	2
117	Gumberg, Ira	1	1	2	2
118	Cowen, Scott	1	1	1	1
119	Krasney, Samuel	1	1	1	1
120	Newman, Frank	1	1	1	1
121	Morgan, Howard L.	1	1	2	2
122	Harris, William W.	1	1	2	2
123	Wilhelm, David C.	1	1	2	2
124	Arnold III, A. Alexander	1	1	2	2
125	Siegel, Alan	1	1	1	1
126	Fruitman, Frederick H.	1	1	2	2
127	Walsh, Joseph M.	1	1	1	1
128	Dimitriadis, Andre C.	1	1	2	2
129	Krauser, Charles R.	1	1	2	2
130	Huyke, Richard Reiss	1	1	2	2
131	Meyercord, Wade	1	1	2	2
132	Schube, Stuart	1	1	2	2
133	Lin, Grace Chin-Hsin	1	1	2	2
134	Shapiro, E. Donald	1	1	2	2
135	Overbeck, Joseph C.	1	1	2	2
136	Lynham, C. Richard	1	1	2	2
137	Hodge, Robert E.	1	1	1	1

138	Hiatt, Thomas A.	1	1	2	2
139	Shockey, Marcy H.	1	1	2	2
140	Weisgal, Solomon A.	1	1	1	1
141	Turner, William C.	1	1	2	2
142	Walker, Dianne C.	1	1	2	2
143	Mihaylo, Stephen G.	1	1	2	2
144	Ames, Evan B.	1	1	2	2
145	Gries, Robert D.	1	1	2	2
146	Adler, David H.	1	1	2	2
147	Appelle, Harvey, A.	1	1	2	2
148	Crystal, James W.	1	1	2	2
149	Larsen, Thomas R.	1	1	1	1
150	Smith, Thomas C.	1	1	1	1
151	Henning, Thomas E.	1	1	2	2
152	Olson, Edward R.	1	1	2	2
153	Kalman, C. Arnold	1	1	2	2
154	Nisbet, W. Samuel	1	1	2	2
155	Taylor, Thomas T.	1	1	1	1
156	Smith, Thomas A.	1	1	1	1
157	Johnson, Charles A.	1	1	2	2
158	DeConcini, Dennis W.	1	1	2	2
159	Stanton, James V.	1	1	2	2
160	Nichols, William B.	1	1	2	2
161	Price, Jr., Edward O.	1	1	2	2
162	Fisher, Joseph K.	1	1	2	2
163	Riccio, Ronald J.	1	1	2	2
164	Lovely, William C.	1	1	1	2
165	Kaplan, Steven F.	1	1	1	2
166	Lonergan, William R.	1	1	2	2
167	Storey, James W.	1	1	2	2
168	Carr, William R.	1	1	1	1
169	Lynch, F. James	1	1	2	2
170	Sayford, Richard B.	1	1	2	2
171	Guzy, D. James	1	1	2	2
172	Verderico, Patrick	1	1	1	1
173	VanLunvane, Donald	1	1	2	2
174	Kopchinsky, Gregory	1	1	2	2

175	Migliorino, Robert	1	1	2	2
176	Kremser, David A.	1	1	1	2
177	Casey, John T.	1	1	2	2
178	Lynch, John T	1	1	2	2
179	White, Mark W.	1	1	2	2
180	Clarke, Robert S.	1	1	2	2
181	Brantman, Frank	1	1	2	2
182	Brous, Howard D.	1	1	2	2
183	Esanu, Warren H.	1	1	2	2
184	Feldman, Herbert H.	1	1	1	1

185	McEwen, Richard W.	1	1	2	2
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186	Lewis, Daniel C.	1	1	2	2
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187	Walker, Jr., William T.	1	1	2	2
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188	Pascali, P. Peter	1	1	1	2
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189	Warren, John H.	1	1	1	1
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NON VIOLATING AUDIT COMMITTEE

DIRECTORS

190	Benenson, Charles B.	2	1	2	2
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191	Scott, Gloria R.	2	1	2	2
-----	------------------	---	---	---	---

192	Grayson, C. Jackson	2	1	1	1
-----	---------------------	---	---	---	---

193	Whitman, Marina v.N.	2	1	2	2
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194	Willmott, Peter S.	2	1	1	2
-----	--------------------	---	---	---	---

195	Finn, John F.	2	1	2	2
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196	Gerbig, Robert L.	2	1	2	2
-----	-------------------	---	---	---	---

197	Robertson, Jerry E.	2	1	2	2
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198	Herzlinger, Regina E.	2	1	2	2
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199	Schall, Richard L.	2	1	2	2
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200	Gotto, Jr., Antonio M.	2	2	2	2
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201	Holloran, Thomas E.	2	1	1	2
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202	Schuler, Jack W.	2	1	2	2
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203	Swalin, Richard A.	2	1	2	2
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204	Groves, Ray J.	2	1	1	1
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205	Hunt, Ray L.	2	1	2	2
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206	Sosa, Enrique J.	2	1	2	2
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207	Miller, William R.	2	1	1	1
-----	--------------------	---	---	---	---

208	Zimmerman, Richard A.	2	1	1	1
-----	-----------------------	---	---	---	---

209	Peden, Katherine G.	2	1	2	2
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210	Hopkins, David L.	2	1	1	2
211	Cole, Dr. Thomas W.	2	2	2	2
212	Thomas, Lee M.	2	1	2	2
213	Fairbanks, Richard M.	2	2	2	2
214	Kelly, Gaynor N.	2	1	2	2
215	Caspari, Manfred	2	2	2	2
216	Clayton, James L.	2	1	2	2
217	Dickson, Reginald D.	2	1	2	2
218	Holland, John B.	2	1	2	2
219	Knuckles, Barbara M.	2	2	2	2
220	Augustine, Norman R.	2	1	2	2
221	Bowles, Barbara L.	2	1	2	2
222	Candlish, Malcom	2	1	2	2
223	Woodward, M. Cabell	2	1	1	1
224	Kaiser, James G.	2	1	2	2
225	McNerney, Jr., W. James	2	1	2	2
226	Brown, Stillman B.	2	1	1	2
227	Kraus, Eileen S.	2	1	1	2
228	Scott, John S.	2	1	1	1
229	Evans, Ben	2	1	1	1
230	Guttag, Jim V.	2	1	2	2
231	Reinhold, Walter B.	2	1	2	2
232	Schulte, David M.	2	1	1	2
233	Thorsen, Thomas O.	2	1	1	2
234	McKeague, Gordon C.	2	1	2	2
235	Doyle, John L.	2	1	2	2
236	Lowe, Philip L.	2	1	2	2
237	Moses, Joel	2	1	2	2
238	Hernandez, Roland A.	2	1	2	2
239	Watts, II, Charles H.	2	1	2	2
240	Bergman, Walter W.	2	1	2	2
241	Miller, Robert S.	2	1	1	1
242	Collins, Joseph J.	2	1	1	1
243	Roberts, Brian L.	2	1	2	2
244	Fogelsong, Norman A.	2	1	2	2
245	Peth, John W.	2	1	1	1
246	Lavin, William K.	2	1	1	1
247	Tobin, John E.	2	1	2	2
248	Will, James F.	2	1	2	2
249	Lucas, Donald L.	2	1	2	2

250	Scalise, George M.	2	1	2	2
251	Knowles, Christopher G.	2	1	2	2
252	Smith, Michael A.	2	1	1	1
253	Congdon, Marsha B.	2	1	2	2
254	Fiebiger, James R.	2	1	2	2
255	Offerdahl, Richard E.	2	1	2	2
256	Stanley, David	2	1	2	2
257	Eichhorn, Richard E	2	1	2	2
258	Finnegan, Lawrence J.	2	1	2	2
259	McGregor, Jack E.	2	1	2	2
260	Sarney, George W.	2	1	2	2
261	Baldwin, David M.	2	1	2	2
262	Cruess, Richard L.	2	2	2	2
263	Rinaldi, Herbert M.	2	1	2	2
264	Herndon, Noah T.	2	1	2	2
265	Lane, Wendy E.	2	1	2	2
266	Moran, Gordon W.	2	1	2	2
267	Greenberg, Stephen D.	2	1	1	1
268	Tulchin, Stanley	2	1	2	2
269	Feder, Allan A.	2	1	2	2
270	Mauer, David M.	2	1	2	2
271	Clegg, C. Stephen	2	1	2	2
272	Stinson, George A.	2	1	2	2
273	Holiday, Jr., Harry	2	1	2	2
274	Wyckoff, T. Evans	2	1	2	2
275	Kimmel, Jeanette C.	2	1	2	2
276	Bray, Doris R.	2	1	2	2
277	Niles, Clayton E.	2	1	2	2
278	Bass, Barbara	2	1	2	2
279	Megarry, A. Roy	2	1	1	2
280	Flournoy, Houston I.	2	1	2	2
281	Morrisroe, David W.	2	1	2	2
282	Ross, Dickinson C.	2	1	2	2
283	King, Frank W.	2	1	2	2
284	Cheyeyl, Stephen	2	1	1	2
285	Dworman, Alvin	2	1	2	2
286	Fergenson, A. Leon	2	1	2	2
287	Sullivan, Fred R.	2	1	2	2
288	Tsai, Jr., Gerald	2	1	2	2
289	Gfeller, Warren H.	2	1	1	1

290	McGurk, Dan L.	2	1	2	2
291	Gardner, G. Tilton	2	1	2	2
292	Mann, Michael M.	2	1	2	2
293	O'Grady, James F.	2	1	2	2
294	Kramer, Paul	2	1	1	1
295	Dugan, Edward F.	2	1	2	2
296	Augsburger, Robert R.	2	1	2	2
297	McQuade, Lawrence C.	2	1	2	2
298	Fowler, William G.	2	1	2	2
299	Van Roijen, Jr., Robert D.	2	1	2	2
300	Battle, A. George	2	1	1	1
301	Hull, M. Blair	2	1	2	2
302	Costle, Douglas M.	2	1	2	2
303	Morris, John W.	2	1	1	1
304	Duffey, K. Lyle	2	1	2	2
305	Fries, J. Robert	2	1	1	1
306	Hendrickson, E. Mason	2	1	2	2
307	Kempton, George R.	2	1	2	2
308	Dyer, Daniel	2	1	2	2
309	Wollaeger, Timothy J.	2	1	2	2
310	Smith, Lonnie M.	2	1	2	2
311	Hymans, Saul H.	2	1	2	2
312	Newman, Charles	2	1	1	1
313	Geishecker, John A.	2	1	1	2
314	Likins, Peter	2	1	2	2
315	Messman, Jack L.	2	1	2	2
316	Pallmer, Russell E.	2	1	1	1
317	Devening, R. Randolph	2	1	1	2
318	Weaver, Donna L.	2	1	1	1
319	Fruge, Don L.	2	1	2	2
320	Kaufman, Michael D.	2	1	2	2
321	Levison, Walter J.	2	1	2	2
322	Asen, R. Scott	2	1	2	2
323	Stone, C. Scott	2	1	1	1
324	Woolley, Kenneth M,	2	1	2	2
325	Croonquist, David G.	2	1	2	2

326	Elwick, Keith D.	2	1	2	2
327	Shuster, Joseph M.	2	1	2	2
328	Cusick, Thomas A.	2	1	2	2
329	Blissenbach, Henry F.	2	1	2	2
330	Owens, Jr., Charles V.	2	1	2	2
331	Weaver, Lawrence C.	2	1	2	2
332	Schwab II, David E.	2	1	2	2
333	Troubh, Raymond S.	2	1	1	2
334	Tsai, Jr., Gerald	2	1	2	2
335	Singh, Inder M.	2	1	2	2
336	Herndon, Noah T.	2	1	2	2
337	Claflin II, Thomas M.	2	1	2	2
338	Heilman, M. Stephen	2	1	2	2
339	Allen, Charles R.	2	1	1	1
340	Caligiuri, Joseph F.	2	1	2	2
341	Fink, Daniel J.	2	1	1	2
342	Hughey, III, G. William	2	1	2	2
343	Spurlock, Earle P.	2	1	2	2
344	Deal Jr., James D.	2	1	2	2
345	Phillips III, John Temple	2	1	2	2
346	Wetherbee, Michael J.	2	1	2	2
347	Walden, William L.	2	1	2	2
348	D'Amore, Richard A.	2	1	2	2
349	Low, Paul R.	2	1	2	2
350	Elftmann, Joel A.	2	1	2	2
351	Martin, III, Frank A.	2	1	2	2
352	Firstenberg, Jean	2	1	2	2
353	Baruch, Steven	2	1	1	1
354	Modlin, Howard S.	2	1	2	2
355	Mortimer, Jr., Haenry T.	2	1	2	2
356	Patterson, Patricia S.	2	1	2	2
357	Shelton, Larry B.	2	1	1	1
358	Carman, Carl D.	2	1	2	2
359	Meyers, Jr., F. Gibson	2	1	2	2
360	Schneider, Howard M.	2	1	2	2
361	Einspruch, Norman G.	2	1	2	2

362	Newlin, Michael H.	2	1	2	2
363	Cable, Thomas J.	2	1	2	2
364	Hill, George R.	2	1	2	2
365	Hopping, Kenneth H.	2	1	2	2
366	Speziale, A. John	2	1	2	2
367	Morgan, Howard L.	2	1	2	2
368	Lane, III, William H.	2	1	1	1
369	Shifftan, Ronald	2	1	2	2
370	Bernstein, Howard	2	1	1	1
371	Silverman, Cecile	2	1	1	1
372	Swanky, Kalvan	2	1	2	2
373	Cooley, Richard P.	2	1	2	2
374	Gilchrist, M. Ian G.	2	1	2	2
375	Thielen, Michel C.	2	1	2	2
376	Crowley, James W.	2	1	2	2
377	Peters, Franck C.	2	1	2	2
378	Nelson, William G.	2	1	1	1
379	Gerard, Fred N.	2	1	2	2
380	McGurk, Dan L.	2	1	1	2
381	Reahard, Thomas M.	2	1	2	2
382	Franta, Willaim R.	2	1	2	2
383	Schoen, Kenneth A.	2	1	2	2
384	Brueck, Robert L.	2	1	2	2
385	Zimmerman, Fredrick M.	2	1	2	2
386	Barry, III, John J.	2	1	2	2
387	Kuli, Alexander S.	2	1	2	2
388	Robinson, Jr., John H.	2	1	2	2
389	Kemper, David W.	2	1	2	2
390	Favia, James	2	1	1	2
391	Schneiderman, Herbert	2	1	2	2
392	Tucker, Gordon	2	1	2	2
393	Halevy, Irving	2	1	2	2
394	Barre, Stephen A.	2	1	1	1
395	Shelton, James C.	2	1	2	2

396	McCarthy, Dennis	2	1	2	2
397	Lightcap, William T.	2	1	1	1
398	Ross, Jules	2	1	2	2
399	Rued, Scott D.	2	1	1	2
400	Doyle, Dennis J.	2	1	2	2

Appendix J
Independent Test of Reliability



December 10, 2001

Dr. Randi L. Sims
Nova Southeastern University
3301 College Avenue
Fort Lauderdale, FL 33314

Dear Dr. Sims:

At the request of Larry Rager, I have performed a review and tests of samples on his dissertation data source materials and data classifications. I have also validated the results of his statistical analyses. The results of my review and tests are consistent with the results reported by Larry in his dissertation.

I am hopeful that Larry will be submitting a final draft to us soon.

Sincerely,

M. Mahabub-ul Islam, Ph.D.
Professor of Economics
Member of Dissertation Committee

cc: Dr. Howard Lawrence

Office of Business Administration/MBA
P.O. Box 600, Loretto, PA 15940-0600 Phone: (814) 472-3087 Fax: (814) 472-3174
www.saintfrancisuniversity.edu

Retest of Appendix D, Directors Classifications by Dr. M. Mahabub-ul Islam. A random sample of 10 of the 75 violating (V) companies and the 10 matching choice-based non violating (NV) companies was performed. Company Numbers selected for the random test in ascending order: 7; 11; 12; 14; 20; 25; 38; 52; 66; 69.

Co. #	Director's in Alphabetical Order	Independence, BRC/Strict Fin Literacy	Source Codes for Independence and Financial Literacy Tested
52NV	ALLEN	1,3	1. SEC Filings and Forms (EDGAR) Corporate Proxy Material
38V	ARTHUR	1,3	2. Lexis-Nexis Academic Universe Search Page: Reference - Biographical
69NV	BARRY	1,6	3. Marquis Who's Who in America
14NV	BERGMAN	1,5	4. Standard & Poor's Register of Corporations, Directors and Executives
66NV	BERMAN	1,2	5. The Corporate Library - Director Profiles
12V	BLALACK	1,8	6. Corporate Yellow Book, Who's Who at leading U.S. Companies
12V	BROWN, R.G.	1,5,6	
52NV	CALIGIURI	1,5,6	
7NV	CASPARI	1,2	
20NV	CONGDON	1,3,4,5	
38NV	COSTLE	1,2	All the directors tested were also matched against the source materials sent by the accounting certifying organizations.
12NV	DOYLE	1,5,6	
66NV	EGDAHL	1,3	
11NV	EVANS, BEN	1,2	
7NV	FAIRBANKS	1,6	
25NV	FEDER	1,3	
20NV	FIEBIGER	1,3,5	
20V	FILPOWSKI	1,2	
52NV	FINK	1,3,5	
26NV	GREENBERG	1	
11NV	GUTTAG	1	
52V	HODGE	1,2	
66V	KAPLAN	1,2	
7NV	KELLY	1,3,5	
14V	KNORP	1,2	
14V	KOCH	1,5	
69V	KOPCHINSKY	1	
69NV	KULI	1	
66V	LONEGRAN	1	
12NV	LOWE	1,3	
52V	LYNHAM	1,3	
25NV	MAUER	1,2	
14V	MCDONNELL	1,5,6	
12NV	MCKEAGUE	1,4	
69V	MIGLIORINO	1	
14NV	MILLER, ROB	1,5,6	
38V	MOFFETT	1,2	
38NV	MORRIS, JOHN	1,3	
12NV	MOSES	1,5,6	
11V	NEIVERT	1,5,6	
66NV	NELSON, WILLIAM	1,3	
52V	OVERBECK	1,2	
38V	PERETTO	1	
25V	PEZZILLO	1,2	
20V	PUTH	1,5,6	
11NV	REINHOLD	1,4	
7V	RICE	1,5,6	
12V	ROBY	1,5,6	
11NV	SCHULTE	1,3	
25V	STANTON, FRANK	1,2	
66V	STOREY	1	
11V	TAUB	1,5,6	
7NV	THOMAS	1,5,6	
11NV	THORSEN	1,8	
7V	TRIVELPIECE	1,2	
11V	TSAI	1,5,6	
25NV	TULCHIN	1,2	
20V	WEAVER, WILLIAM	1,5,6	
7V	WOLFE	1,5,6	
14V	YANSOUNI	1,5,6	

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