

Contrasting Recommendations of the Advisory Committee on the Audit Profession to Existing Audit Research: Research Gaps and Opportunities

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INTRODUCTION

Although there may be some argument as to the degree to which audit practice should drive audit research; there is a general consensus that it is desirable for audit research to have some contribution to audit practice. The relationship between those parties involved in audit practice and academics can be symbiotic, benefiting all parties. The American Accounting Association (AAA) Research Impact Task Force listed several areas where audit research has impacted audit practice (Moehrle et al. 2009, 419-425).¹ If that impact (or the recognition of that impact) on audit practice was improved, according to the Research Impact Task Force, "...the practitioner community will be even more willing to invest in academe and help universities address the escalating costs of training and retaining doctoral-trained research faculty" (Moehrle et al. 2009, 411).

Indeed, recently there has been a growing effort to enhance this relationship. The Public Company Accounting Oversight Board (PCAOB) initiated a research synthesis project. Audit research teams formed by the AAA's Auditing Section Executive Committee have contributed significant research input for nine of the PCAOB's standard setting projects.² In addition, audit researchers have attempted to improve the use of research by practitioners via the Research Notes section in *Auditing: A Journal of Practice and Theory* (AJPT) and the publication of *Current Issues in Auditing*. Finally, dialogue with professional bodies, e.g., Center for Audit Quality (CAQ) and Committee of Sponsoring Organizations (COSO), has increased. These efforts suggest that understanding and improving the relationship between audit research and audit practice is of current interest.

There is no mystery as to what the audit profession considers to be important topics and the issues associated with those topics. A wide range of government agencies and professional organizations that oversee auditing standards, regulations, and accounting firms (which we refer to collectively in this article as *overseers*) have sponsored or produced a variety of reports and publications on an array of audit-related topics. Examples of these publications are the major reports from formal committees or commissions (e.g., Cohen Commission 1978; Treadway

¹ Moehrle et al. (2009) also included contributions related to financial accounting, tax, regulation, managerial accounting, and information systems.

² A listing of resulting publications produced by the nine research teams is available at: <http://aaahq.org/audit/Pubs/Audrep/08fall/PCAOBUpdateStatusReport-ResSynth.pdf>

Commission 1987; O'Malley Panel 2000; ACAP 2008c). These reports typically provide an overview of topics of interest, a discussion of related issues and concerns, and then conclude with specific recommendations. The major committees or commissions that produced these reports usually include a mix of audit practitioners, financial statement users, overseers, and, frequently, one or more academics.

Regarding the most recent major overseer report, the *Final Report* (ACAP 2008c) of the U.S. Department of the Treasury's Advisory Committee on the Auditing Profession (ACAP, hereafter Advisory Committee or Committee) includes 38 recommendations and sub-recommendations on the sustainability of a strong and vibrant public company auditing profession and, thus, to improve audit quality (see the complete set in the Appendix). The AAA's Treasury Tracking Team commented on these recommendations and three members of the Team published a commentary "Responses of the American Accounting Association's Tracking Team to the recommendations of the Advisory Committee on the Auditing Profession" in *Accounting Horizons* (Carcello et al. 2009).

Our paper also focuses on the recommendations issued by the Advisory Committee, however from another perspective. The overall objective of our exploratory study is to identify gaps between specific topics included in the Committee's recommendations and topics included in existing academic audit research, which, in turn, can provide potential future research opportunities. As the following two research questions indicate and the Venn diagram in Figure 1 illustrates, there are two potential gaps to explore. The left side of the diagram represents topics that appear in academic audit research that have not appeared in overseer reports. The right side of the diagram represents topics of interest to overseers, and therefore implicitly to practitioners, that have not appeared (or are underserved) in academic audit research. Using the most recent overseer report, the 219-page Advisory Committee's *Final Report* (ACAP 2008c), we specifically, explore the two following research questions:

RQ1: What academic audit research topics are underrepresented in the auditing topics of concern to the Advisory Committee?

RQ2: What auditing topics of concern to the Advisory Committee are underrepresented in academic audit research?

Insert Figure 1 here

To address RQ1, we mapped the Committee's recommendations to broad categories of audit research topics operationalized by the 16 audit research "themes" from Lesage and Wechtler (forthcoming). RQ1 results present a different kind of research opportunity. Essentially every academic research paper starts with a motivation discussion, which includes practice topics and issues that the researcher will address in his/her research. As represented in the left side of Figure 1, RQ1 results will be those topics that have *not* appeared in the Committee's report. Our findings indicate that eight (50%) Lesage and Wechtler themes did not match any recommendation raised by the Advisory Committee. Then the future research question becomes: Are overseers aware of those topics, but do not view those topics as high-priority topics (compared to the topics they did choose to address), or are overseers unaware of the body of research regarding some of those topics? Depending on the answer to that question, follow-up questions arise, such as: If the overseers are aware of the topic, why does it have a low priority? If they are unaware of the topic, what can be done to increase the awareness of the topic?

Whereas RQ1 provides a broad perspective of the Committee's topics/research landscape, with RQ2, we drilled down to the level of individual audit research articles to determine the depth of coverage of the Committee's topics. As our research findings show, at the extreme, just because an overseers' topic falls into a particular research category, that does not mean there are any research articles that specifically address that topic. Hence to address RQ2, we did the opposite of RQ1; we mapped existing audit research literature operationalized by the 33 years of audit publications on the AAA Web site to the topics in the Committee's recommendations. Any underrepresented topic in the RQ2 results, as represented in the right side of Figure 1, can provide new opportunities where academics can provide truly groundbreaking research. Our findings suggest that 18 (47%) recommendations had zero matches in the AAA database, leading to the future research question: Why were those topics not researched before? For example, some topics might require a level of sharing internal materials by the accounting firms that has not been realized in the past.

To our knowledge, our study is the first exploratory gap analysis that attempts to perform a detailed mapping of audit overseer topics to/from audit research topics to identify potential additional audit research topics. Several researchers have developed frameworks to categorize

audit research and to quantify the number of articles that fall into each category (e.g., Smith and Krogstad 1984, 1988, and 1991), but for our analysis, we developed a technique to categorize overseer topics.

The remainder of this paper is organized as follows. The second section provides background information and a literature review. The third section describes our research design to conduct the gap analysis. Our findings are summarized in the fourth section. We conclude this paper in the fifth section with a set of recommendations for future research based on the identified gaps between the Committee's recommendations and existing audit research.

BACKGROUND

This background section has two subsections. The first subsection provides a general overview of the literature regarding the relationship between audit practice and audit research. The second subsection summarizes prior literature that provides different approaches to categorizing audit research literature.

Relationship between Audit Practice and Audit Research

Audit research has been shown to be useful to the audit profession. For instance, findings by Gendron and Bédard (2001) suggest that, whereas the degree to which audit research can be applied by audit practitioners is relatively high, the degree to which this research threatens the legitimacy of the auditing profession is relatively low. However, accounting firms sometimes appear to outright hinder audit research (Gendron 2000). Notwithstanding the sometimes less than desired support by accounting firms, audit researchers generally agree that one worthwhile outcome of their research is the positive impact on audit practice.

Historically, audit research has played a significant role in the development of audit standards and practice (Moehrle et al. 2009). Pre-1990 research contributions address the following important aspects of the audit profession: risk orientation (e.g., Altman 1986; Altman and McGough 1974), audit judgment (e.g., Hicks 1974; Mock and Turner 1981), audit sampling (e.g., Wyatt 1968; Neter and Loebbecke 1975), analytical procedures (e.g., Kinney and Felix 1980), and communication with users (e.g., Libby 1979). For instance, Neter and Loebbecke's

(1975) findings had a considerable impact on the profession's use of statistical sampling in audit practice. More recent research contributions address, *inter alia*, the detection of financial statement fraud and help identify risk factors commonly present in fraudulent financial statements (e.g., Albrecht and Romney 1986; Eining et al. 1997; Beneish 1999; Bell and Carcello 2000). Statements on Auditing Standards (SASs) Nos. 6, 16, and 53, for instance, largely reflect evidence of "red flags" documented in Albrecht and Romney (1986). The body of research on the effectiveness of neural network models (Fanning et al. 1995; Green and Choi 1997; Lin et al. 2003) is another example of the impact of audit research on audit practice since these findings have led accounting firms to increase their use of such models.

In an attempt to facilitate the development of auditing standards, the Audit Section of the AAA developed a series of literature syntheses for the PCAOB. The nine assembled research teams summarized literature in the areas of audit confirmations, audit firm quality control, the audit report model, auditor communications with audit committees, engagement quality review, financial fraud, related-party transactions, auditor risk assessment, and auditing fair values (AAA 2008). Regarding the standard setting process, the PCAOB has used the research syntheses (Moehrle et al. 2009).

Academic research has also had a significant impact on accounting and auditing regulation. Academic studies identify normative regulatory strategies as well as assess the effectiveness of different regulatory actions (for a review of extant studies on significant regulatory actions, see Moehrle and Reynolds-Moehrle 2005, 2007; Moehrle et al. 2008). Academics also respond to every significant regulatory draft or report offered for public comment by the Securities and Exchange Commission (SEC), the Financial Accounting Standards Board (FASB), or the Financial Accounting Foundation (Jorgensen et al. 2007; Moehrle et al. 2009). In order to help bring research results to regulators, academics often serve on regulatory boards, e.g., three of the four major overseer reports mentioned earlier included one or more academic members. The same is true internationally. For instance, regarding the Public Interest Oversight Board (PIOB) currently three academics serve on the ten member board (PIOB 2011).

While the discussion above suggests that audit research has a significant, positive effect on auditing practice, practitioners' assessment of this impact is likely to be more reserved. Indeed, from practitioners' point of view, audit research is likely to have little or no impact on how they

conduct audits (Sullivan 1993; Write 1995), primarily for two reasons. First, while there has been a call for more field-based audit research (Heck and Jensen 2007), such studies are scarce (Gendron 2000; Power 2003) and the vast majority of audit researchers employ mathematically and statistically based economic/behavioral theory and quantitative modeling (Heck and Jensen 2007). One motivation for using mathematical and statistical analysis in such articles might be that these methodologies are viewed as necessary for a paper to be accepted for publication by top auditing/accounting journals, e.g., *The Accounting Review* (TAR) (Heck and Jensen 2007). However, due to the technical jargon and quantitative analysis, few practitioners are able to fully understand the audit research published in academic journals (Sullivan 1993; Bell and Write 1995). But, recently there are tendencies towards making consumption of audit research by audit practice more likely, e.g., Research Notes section in AJPT starting in 2002 and the publication of *Current Issues in Accounting* starting in 2007. Second, because an important consideration in research is making a significant incremental impact to the body of knowledge, in an attempt to make the analysis operational or to obtain more academically defensible and/or mathematically precise findings, academic research often simplifies the auditing problem to such a degree that the problem ceases to be sufficiently representative of the situation faced by practitioners. In summary, from the practitioners' perspective, audit research is often too narrowly focused in the definition of the problem at hand while overly advanced in terms of methodology and analysis to be regarded as relevant and useful by practitioners. Sullivan (1993) argues that the solution to these problems is increased communication between leading academics and leading practitioners.

The Committee recognizes how audit practice could help audit research, particularly in part (c) of Recommendation 3 (p. VI:22), which in part states:

(c) Create a variety of tangible and sufficiently attractive incentives that will motivate private sector institutions to fund both accounting faculty and faculty research, to provide practice materials for academic research and for participation of professionals in behavioral and field study projects...

The middle point, "...provide practice materials for academic research and for participation of professionals in behavioral and field study projects..." has been an ongoing issue since audit researchers frequently complain that the firms do not do enough sharing of materials. Referring to this ongoing paucity of practitioner data, the Committee, referring to a witness' comments,

says, "...this lack of data has [an impact] on research and potentially on the profession's sustainability. In particular...the decline in auditing research materials...will lead to a further decline in faculty and doctoral students specializing in auditing" (ACAP 2008c, p. V1:23).

Unfortunately, the Committee's discussion surrounding this recommendation is asymmetrical. The Committee made this recommendation to help audit faculty conduct their research and to help with their tenure and promotion; but the Committee did not say anything about how this research can actually contribute to audit practice.

Improved communications between audit researchers and practitioners can be synergistic and benefit both parties. For instance, increased recognition of the contributions of audit research by audit practice may benefit researchers by leading practitioners to increase the funding of audit research (Palys 1992; Moehrle et al. 2009). This increased recognition may also lead to greater researcher access to audit work papers and live audit assignments, addressing a common complaint of researchers (Power 2003), while also leading to more field-based, practice-related research, addressing the complaint of practitioners that audit research does not address the realities of public audit practice. Identification of research ideas by practitioners is another way that practitioners could support audit research while, at the same time, helping researchers focus on questions that audit practitioners are really interested in. Importantly, teaching current research innovations to auditing and accounting students rather than simply what is currently done or required in practice can help bring research findings and their impact on audit practice to future practitioners (Dyckman 1989), and thus can be regarded as one approach to enhancing the communication between audit research and audit practice. Dyckman's observation over 20-years ago is even more relevant in today's audit environment with its growing demands in terms of regulations, complex financial instruments, and uses of technology by clients and auditors.

Categorizing Existing Audit Research

There are several publications where existing bodies of audit research have been classified according to a variety of frameworks and taxonomies, and then an array of descriptive statistics are provided in terms of how many publications fell into specific categories in the framework. Examples of these publications include Smith and Krogstad (1984, 1988, 1991), Mock et al.

(1993), Maijor et al. (2001), and the 33-years audit research history on the AAA Web site (AAA 2009).

The first decision these authors made was selecting the audit literature population to include in their analysis in terms of audit and accounting journals (or for Mock et al. (1993), a specific conference). For example, Smith and Krogstad (1984, 1988, 1991) limited their analysis to AJPT published by the AAA Audit Section.

Then the authors had to decide how to classify each article from their selected population. In general, the frameworks used to classify the articles were *concept-driven* in that categories were pre-defined by the authors before analyzing the existing literature. The most recent example of an audit literature categorization study was described in Lesage and Wechtler (forthcoming). They took a *data-driven* approach where they used content analysis software to analyze essentially all the audit research papers included in 25 different journals from each journal's inception through 2005. For *The Accounting Review*, that meant starting from 1926.

First, Lesage and Wechtler used software to count the occurrences of individual words in the research publications. Second, they cleaned up the initial results by collapsing similar variations of root words and eliminating connecting words (the, a, an, etc.). Third, they used factor analysis to group the words. The results were 16 “themes” listed in Table 1.

Insert Table 1 here

RESEARCH DESIGN

This section provides an overview of our research design to explore our two research questions. It first provides an overview of the Advisory Committee's *Final Report*. Then, it describes how we extracted the key content elements from the recommendations in that report, mapped those recommendations to the audit research themes in Lesage and Wechtler (forthcoming) (for RQ1), and mapped the AAA audit research citation database to those recommendations (for RQ2).

Selecting the Advisory Committee's *Final Report*

For our exploratory gap analysis, we selected the Advisory Committee's *Final Report* (ACAP 2008c), which is the most current of a series of major overseer reports regarding the auditing

profession that also includes, in part, the: Cohen Commission (1978), Treadway Commission (1987), and O'Malley Panel (2000).³ The work of the Advisory Committee is the first major study of the auditing profession since the passage of the Sarbanes-Oxley Act of 2002 (SOX) and the formation of the PCAOB. The Committee recognizes the influence of the three previously published reports (pp. V:1 et seq. and K:3). While we are not implying that the Committee's report is the *direct* culmination of these prior reports, as Table 2 illustrates, the Committee's objectives and recommendations significantly overlap the major reports that preceded it. In fact, it is disconcerting how similar all of these reports are—many of the same issues and recommendations reoccur in those reports. Indeed, it seems that little has changed since the Cohen Commission in 1978—over 30-years ago.

Insert Table 2 here

The primary emphasis of the Cohen Commission was to examine the gap between the performance of auditors and the expectations of financial statement users and to determine ways to resolve that disparity (1978, p. xi). Among many other issues, their report has a chapter dedicated to education that raised several education issues that are similar to those raised in the Advisory Committee's *Final Report* (ACAP 2008c, pp. VI:1-27). The Cohen Commission's Report (1978) uses phrases like: "A schism between academics and practicing accountants." (p. 85). Later on the same page, they say: "...practitioners find themselves unable to relate to most published accounting research." Likewise, the other 10 chapters in the Cohen Commission's Report (1978) could be broadly mapped to the Advisory Committee's *Final Report* (ACAP 2008c).

The Treadway Commission's (1987) recommendations focus on how to prevent, detect, and deter fraudulent financial reporting. For instance, the Treadway Commission (1987) recommends that "the Auditing Standards Board should revise the auditor's standard report to describe the extent to which the independent public accountant has reviewed and evaluated the system of internal accounting control." (p. 57). Similar issues addressing a clarification of the role and responsibilities of the auditor regarding fraud and, therefore, an improved communication with financial statement users are raised in the Advisory Committee's *Final Report* (ACAP 2008c, p.

³ These report are all U.S. based. Reports outside the U.S. also address the audit profession. We list some of those reports in the future research discussion at the end of our paper.

VII:13). The fact that the overarching objective of the Treadway Commission’s Report (1987) to prevent, detect, and deter fraudulent financial reporting is also reflected in another Advisory Committee’s recommendation (ACAP 2008c, p. VII:8) leads further support that the Treadway Commission’s Report (1987) could also be broadly mapped to the Advisory Committee’s *Final Report* (ACAP 2008c).

The O’Malley Panel (2000) primarily addresses the following themes: (1) conduct of audits, including auditor’s responsibility for fraud, (2) leadership and practice of audit firms, (3) effects of auditor independence, (4) governance of the auditing profession, and (5) strengthening the auditing profession internationally. For instance, the O’Malley Panel (2000) recommends that “audit firms develop or expand programs for auditors at all levels oriented toward procedure and responsibilities for fraud detection” (p. 93). As discussed above similar issues are raised in the Advisory Committee’s *Final Report* (ACAP 2008c, p. VII:8, p. VII:13). In addition, the O’Malley Panel (2000) recommends that “the Public Oversight Board (POB) and the SEC acknowledge the need to maintain a continuing dialogue that will foster a cooperative relationship, protect and enhance mutual respect and confidence and increase the public’s respect for the profession and its role in the capital markets” (p. 141). This issue also appears in the Advisory Committee’s *Final Report* (ACAP 2008c, p. VII:3). Likewise, the remaining three themes could also be broadly mapped to the Advisory Committee’s *Final Report* (ACAP 2008c).

Overview of the Advisory Committee’s *Final Report*

On October 2, 2007, the then U.S. Treasury Secretary Henry M. Paulson, Jr., announced the appointment of the Advisory Committee on the Auditing Profession, which was asked to examine the current and future condition of the auditing profession, with emphasis on the sustainability of a strong and vibrant profession. The Committee recognized that the prospects for the auditing profession are directly related to the quality and effectiveness, as well as the perceived value of financial statement audits.

The Committee had 21 members including the two co-chairs, who were Arthur Levitt, Jr. (former SEC Chairman) and Donald T. Nicolaisen (former SEC Chief Accountant). To conduct their study, the Committee was divided into three subcommittees: (1) Human Capital, (2) Firm Structure and Finances, and (3) Concentration and Competition.

Audit academics contributed to the *Final Report* in two ways. First, Professor Gary J. Previts (the 2007-2008 president of the AAA) from Case Western University was the chair of the Subcommittee on Human Capital. Second, several footnotes in the *Final Report* indicate that a significant number of comments were submitted by academics and they had some influence on the formulation of final recommendations.

The Committee held several public meetings and issued its recommendations in a *Draft Report* in May 2008 (ACAP 2008a) and in a *Second Draft Report* in July 2008 (ACAP 2008b). The 219-page *Final Report* was approved with one dissenting vote on September 26, 2008 and was issued on October 6, 2008 (ACAP 2008c). The *Final Report* included 31 recommendations, each labeled “Recommendation,” however, several of these recommendations included sub-recommendations, and so, in total, there were actually 38 individual recommendations (see the complete set in the Appendix).⁴

Content Analysis

Unlike the several examples we presented previously where researchers have categorized academic audit research, we did not find an example where researchers have categorized topics included in major reports from auditing overseers. As such, we developed our own approach to identify key words that can be used to classify the recommendations. We needed these key words to subsequently map the Committee’s recommendations to specific audit research themes (RQ1) and to search for related articles in a literature databases (RQ2).

Our first step toward identifying specific topics and key words in the *Final Report* was to extract premises from the Committee’s recommendations. A premise reflects a belief or perception. A premise can be conceptualized as a material conditional (material implication) logical truth function, which can be symbolized as $p \rightarrow q$ and can be stated as: if p then q . In this function, p reflects the antecedent and q reflects the consequent.

⁴ Going forward in this article, unless we need to specifically differentiate between recommendations and sub-recommendations, when we use terms “recommendation” or “recommendations” we are also referring to any associated sub-recommendations.

Sometimes the premise was explicitly embedded in the recommendation, but sometimes it was implied. We started with the Committee's own words to state the premises. For example, the following is the first recommendation from the Committee:

Recommendation 1: Implement market-driven, dynamic curricula and content for accounting students that continuously evolve to meet the needs of the auditing profession and help prepare new entrants to the profession to perform high quality audits.

The whole report was about improving audit quality. This specific recommendation is for curricula to be more market driven AND to change more quickly (presumably in response to market changes). Hence, the premise captured in this Committee recommendation is:

IF market-driven portions of curricula increase AND speed of curricula changes increases
THEN audit quality increases.

“Market-driven portions of curricula increase” and “speed of curricula changes increases” are $p1$ and $p2$ (the antecedents) and “audit quality increases” is q (the consequent). This premise could be easily turned into two research questions (to address $p1$ and $p2$ separately) and eventually into research hypotheses. Then some measures for $p1$ and $p2$ become the independent variables and some measure for q becomes the dependent variable for testing those hypotheses.

We proceeded through all the recommendations and developed a working list of p 's using the terminology of the Committee. Then from the working list of p 's, we extracted what we called the “root p 's.” For example, searching on a compound term such as “market-driven curricula” would be potentially too restrictive and would result in fewer, if any, matches. In this case the root p 's would be market driven ($p1$) and curricula ($p2$) and each term would be used separately to search the database. In our initial search, we were much more concerned about being too restrictive and not having a match (a false negative), than including an article match in the initial count that was not actually applicable (a false positive). The false positives would be subsequently eliminated from the count when we manually reviewed and confirmed all the initial matches.

The other concern was that the terminologies used in academic audit research may not be *exactly* identical to the search words (the root p 's) although meanings were the same. As such, we also identified aliases for the root p 's. For example, in addition to searching on curricula, we also

searched on curriculum, teaching, and education. The aliases we included came of our personal knowledge of audit terminology used in audit research and the ISA glossary (IAASB 2010). As we searched through the data, additional aliases were also identified.

RQ1: What academic audit research topics are underrepresented in auditing topics of concern to the Advisory Committee?

The next task was to map the topics of the Committee’s recommendations —now in the form of more detailed antecedents (*p*’s), aliases, and consequents (*q*’s)—to existing categories of academic audit research to identify gaps, which, in turn, are academic audit research topics that are underrepresented in auditing topics of concern to the Advisory Committee.

To conduct our RQ1 gap analysis, we used the 16 audit research “themes” in Lesage and Wechtler (forthcoming) as our research categories. Specifically, we mapped the specific topics (*p*’s, aliases), and *q*’s of the Committee’s recommendations to those themes. For each theme, Lesage and Wechtler listed the key words from their content analysis that were associated (via factor analysis) with that theme. It was those associated key words that we used to define a match. Although Lesage and Wechtler went back to 1926 as the starting point of their analysis, we used the last 25 years (1981 – 2005) of their analysis to better reflect more current research interests.

RQ2: What are auditing topics of concern to the Advisory Committee that are underrepresented in academic audit research?

To conduct our RQ2 analysis, we use the 33-years of audit research posted on the AAA Web site (AAA 2009). Specifically, we map the AAA’s 33-years of audit research to the topics (*p*’s, aliases), and *q*’s of the Committee’s recommendations. The AAA database includes a list of 1,647 citations, which were all the audit-related articles published in the following journals from 1975 through 2009:

- Accounting, Organizations and Society
- Auditing: A Journal of Practice and Theory
- Behavioral Research in Accounting
- Contemporary Accounting Research
- Journal of Accounting and Economics

- Journal of Accounting and Public Policy
- Journal of Accounting Research
- The Accounting Review

We recognize that this list does not represent all the journals that may publish audit research, but we have no reason to believe that the articles in these eight journals are not representative of the whole audit research population.

The 1,647 citations were in a Microsoft Word document in a traditional citation format that included the author(s), publication date, publication title, journal name, etc. Since we begin our search with the titles, we created an algorithm to parse the citations into their component parts. The component parts were then stored in a SPSS dataset. We subsequently used SPSS search functions to locate preliminary matches in the dataset. SPSS would list the complete citations for all the matches, if there were any.

Once we had a preliminary list of matching citations for a particular set of *p*'s or alias for a specific recommendation, we inspected the resulting titles to determine each article's true applicability to that recommendation. If there was still uncertainty about the validity of a preliminary match, we located the article in an online database and then made the final determination of whether the article was a match or not by reviewing the abstract and/or keywords. For example, Human Capital Recommendation 1a, (p. VI:4) refers to updating the CPA exam; however, searching on "exam" will return many titles with exam in the title that have nothing to do with the CPA exam. Those citations were subsequently eliminated from the count of matches. These restricted searches are shown in Table 3 as *p* [*r*] where *p* is the *p* term (e.g., exam) and *r* is the restriction on the match (e.g., [cpa]).

FINDINGS

The findings are divided into broad subsections. The first subsection discusses RQ1, which maps the premises (the *p*'s, aliases, and *q*'s) from the Committee's recommendations to the 16 audit research themes in the Lesage and Wechtler (forthcoming) taxonomy. The second subsection discusses RQ2, which are the results of mapping the 1,647 citations in the AAA's 33-years of

audit research database (AAA 2009) to the premises (the *p*'s, aliases, and *q*'s) derived from the Committee's recommendations.

RQ1: What academic audit research topics are underrepresented in auditing topics of concern to the Advisory Committee?

Table 3 shows the results of mapping the Committee's recommendations to the 16 audit themes from Lesage and Wechtler (forthcoming).⁵ The table is sorted in descending order based on the relative popularity of each theme in audit research literature during the selected time period (1981-2005).

Insert Table 3 here

There are eight themes that do not appear to directly relate to any of the Committee's recommendations. Most notably is the most frequent theme, Auditor Judgment. Audit Judgment focuses on the human decision-making processes and decisions aids to improve those processes. None of the Committee's recommendations specifically addressed auditor decision making or the development of decision aids. Likewise, none of the Committee's recommendations addressed Audit Procedures, Audit Sampling, Corporate Governance, Going Concern, Non-Audit Services, and Tax Audit themes. Presumably, these unmatched themes suggest they were not high-priority issues of the Committee members, at least in terms of improving audit quality, which was the overarching objective of the Committee. As an alternative explanation, it may be that the Committee was unaware of some of these topics, but considering the diversity of the Committee, this is not a very likely explanation.

RQ2: What are auditing topics of concern to the Advisory Committee that are underrepresented in academic audit research?

Table 4 shows the results of searching through and mapping of the 1,647 citations with the root *p*'s, their aliases, and the combinations of *p* and *q*. As the table indicates, there were very few matches. Removing duplicate matches, 283 articles (about 17% of the 1,647 articles) would be potentially applicable to the Committee's recommendations. However, the 283 articles are not

⁵ A significant part of the *Final Report* (ACAP 2008c) discussed litigation issues, but the Advisory Committee could not reach a consensus on which to make recommendations, which is why that row is grayed out in Table 3.

equally distributed over all the Committee's recommendations. As Table 4 shows, of the 283 articles, almost 90% of those articles are related to just six topics (*p*'s), including: audit quality (84 articles), auditor independence (60), fraud (36), auditor change (34), the auditor's report (33), and small firm competition (18). In contrast, 18 (47%) of the 38 recommendations and sub-recommendations had zero matches and eight (21%) of the 38 recommendations and sub-recommendations had between one to four matches. Many of those recommendations relate to expanding accounting faculty (particularly minority faculty), internal accounting firm governance (e.g., independent boards for accounting firms), and regulatory activities (e.g., inclusion of smaller firms on committees).

In terms of the three subcommittees of the Advisory Committee, the unique number of articles applicable to each subcommittee had the following distribution:

1. Human Capital: 15 articles
2. Firm Structure and Finances: 108 articles
3. Concentration and Competition: 166 articles⁶

The recommendations in the Human Capital discussions focused primarily on education topics. As such, having only 15 articles (< 1% of citations) applicable to the recommendations of the Human Capital Subcommittee was at first surprising considering audit researchers are also generally audit instructors and would seem to be likely candidates to generate education-related articles. There may be two reasons for these low numbers. First, audit education-related (pedagogical) research does not have the status of audit practice-related research. For example, in its Basis for Judgment discussion regarding accreditation Standard 35, the AACSB says in part, “[Intellectual] Contributions should not be exclusively or predominately in learning and pedagogical research.” (AACSB 2009, 26). The AACSB does not include this caution about discipline-based scholarship or contributions to practice. Second, the AAA's 33-years audit research database did not include the AAA's *Issues in Accounting Education*, which is a likely publication for audit teaching-related articles. As a cursory test, we examined each issue of *Issues in Accounting Education* from 2007 through 2010 and most issues did have at least one or

⁶ The sum of these three numbers is greater than the 283 unique articles reported earlier because there are articles that apply to more than one Subcommittee.

two audit-related articles. So, it does appear that if *Issues in Accounting Education* had been included in the AAA study, the number of Human Capital Subcommittee matches would be higher, but the total number of matches would still not be up to the levels of the other two Subcommittees.

Insert Table 4 here

CONCLUSIONS AND FUTURE RESEARCH

The objective of this exploratory study was to identify gaps between topics of interest in the Advisory Committee recommendations and academic audit research. Our findings indicate there are gaps both in terms of research themes that did not appear in the Committee's recommendations and in terms of Committee recommendations that have little or no coverage in academic audit research. Specifically, regarding RQ1, 50% of the Lesage and Wechtler audit research themes did not match any recommendation, including the most frequent research theme—Audit Judgment. Specifically, regarding RQ2, of the Committee's 38 recommendations and sub-recommendations, 18 (47%) recommendations and sub-recommendations had no matches in the database of 33-years of audit research and another eight (21%) had between one to four matches. With RQ2, *a priori*, although we expected the number of matches to vary greatly between recommendations, with 1,647 citations, we expected to find *some* matches for each recommendation. The fact that we did not find matches for 47% of the recommendations was somewhat disconcerting in terms of the apparent wide gap between audit research and audit practice. We recognize that caution must be exercised in generalizing our exploratory findings, however, as discussed below, the two gaps identified in RQ1 and RQ2 provide a multitude of potential research opportunities in terms of filling those gaps and/or understanding why those gaps exist.

Limitations and Future Research

It is quite possible that there would be academic audit research that *indirectly* applies to the Committee's recommendations that would increase the number of RQ1 and RQ2 matches even in those areas where there were zero *direct* matches in our searches. For instance, Firm Structure and Finances Recommendation 3 recommends that accounting firms have independent board

members. Our search through the Lesage and Wechtler and AAA databases did not find any matches, however, as discussed in Carcello et al. (2009), there were several articles (e.g., Beasley 1996; Dechow et al. 1996; Carcello et al. 2002; Klein 2002; DeZoort et al. 2002; Abbott et al. 2004 and Cohen et al. 2004) that explore corporate (as opposed to accounting firm) boards. As a starting point, researchers would probably start with this corporate board literature to identify parallels to potential accounting firm boards.

Our exploratory study is subject to several other caveats, which, in turn, provide additional opportunities for future research. Three general future research areas are discussed below.

Expand Overseer Population. As our discussion associated with Table 2 illustrated, in broad terms, there are many similarities and overlaps between Committee's *Final Report* and the three other listed major overseer reports, spanning over 30 years. However, we have to be cautious generalizing our findings beyond the *Final Report*. As such, we recommend that future research be conducted to perform an in-depth comparison of the Cohen Commission (1978), the Treadway Commission (1987), the O'Malley Panel (2000), and the *Final Report* (ACAP 2008c) to determine if the topics of interests and premises (*p*'s and *q*'s) have significantly changed for overseers over time.

Future research could also greatly expand beyond these three major reports. For example, the issues, concerns, and questions included in research RFPs (e.g., AICPA and IAASB 2006) are excellent indicators of overseer topics of interest. Also, documents distributed prior to steering committee or working group meetings (e.g., PCAOB 2010) usually include issues and questions to be discussed at the meetings are, in turn, also excellent indicators of overseer topics of interest.

Going even broader, there are many organizations that could be included within the overseer domain. In the U.S., two organizations promulgate audit standards: the ASB of the American Institute of Certified Public Accountants (AICPA) and the PCAOB. The ASB standards apply to non-listed companies and PCAOB standards apply to listed companies. Internationally, the International Auditing and Assurance Standard Board (IAASB), a standing committee of the International Federation of Accountants (IFAC), develops international audit standards (ISAs).

But, these standard setters are not the only auditing overseers. For instance, in the U.S., there is the SEC, which regulates the securities markets and has oversight authority over the PCAOB. Other government agencies, such as the U.S. General Accountability Office (GAO) have published reports regarding the audit profession (e.g., GAO 2008). There are similar overseers in other countries.

Then there are organizations that are funded by the accounting profession that produce audit-related publications. Some of these organizations include the CAQ, which is affiliated with the AICPA; and the COSO funded by the AAA, the AICPA, the Financial Executives International (FEI), the Institute of Management Accountants (IMA), and the Institute of Internal Auditors (IIA). The CAQ's Web site (www.thecaq.org) includes a wide variety of materials (e.g., alerts, white papers, and comment letters) for audit practitioners that can also be useful for audit researchers. Regarding COSO, COSO-sponsored studies analyze, amongst others, financial statement fraud occurrences affecting U.S. public companies (Beasley et al. 1999; Beasley et al. 2010).

Analyze Changing Audit Research Over Time. Back in 1978, the Cohen Commission was already raising concerns about the divergence of audit research and audit practice. The time periods of both the historical research data that Lesage and Wechtler (forthcoming) analyzed and the AAA's citation database do not exactly match the time period of the Committee's recommendations. The Committee's recommendations, in a sense, reflect a relatively small timeframe (essentially 2008), whereas the Lesage and Wechtler data we used covered 25 years and the AAA citations covered 33 years. Therefore, it would be interesting for future research to analyze the change of audit research over time to determine if audit practice and audit research is converging or diverging over time. Lesage and Wechtler (forthcoming) indicated that audit research since 1926 seems to fall into three categories over time: "education period", "statistic period", and then the current "corporate governance period".

Analyze Overseers Outside of the U.S. The Committee's recommendations reflect their concerns regarding the audit profession in the U.S. It is not clear how much the Committee's perspectives can be generalized to jurisdictions outside of the U.S. Thus, future research could focus on publications produced by overseers outside the U.S. It may turn out that relationships between practice and research are closer or further apart in other jurisdictions. Depending on

those findings, a follow-up research question would be why they are closer or further apart than the U.S. Some examples of organizations outside the U.S. include the Audit Quality Forum (AQF) associated with the Institute of Chartered Accountants in England and Wales (ICAEW) in the U.K. with various publications (e.g., ICAEW 2006; ICAEW 2008); and the Standards Working Group (SWG) of the Global Public Policy Committee (GPPC) (e.g., Deumes et al. 2010), which is funded by the six largest international accounting networks (the Big 4 plus BDO and Grant Thornton). The Financial Reporting Council (FRC) in the U.K. is an example of an independent regulator, that operates in the public interest and actively helps to shape U.K., and to influence the EU and global, approaches to corporate reporting and governance. The FRC publishes reports, studies, consultation papers and discussion papers, amongst others, with respect to auditing and related services (e.g., FRC 2008a; FRC 2008b; FRC 2010a; FRC 2010b; FRC 2010c) *inter alia* in an attempt that the reports', studies', consultation papers' and discussion papers' findings are considered in EU Directives and Proposals. The EU itself also publishes reports that are concerned with auditing, e.g., in autumn 2010 the EU Commissioner Barnier published a Green Paper on the role of auditors (EU 2010).

Epilogue: Why *is* there a gap?

Irrespective of a potential limited generalizability of our findings, the significant number of zero matches in the Committee's report is still telling of the relationship—or lack thereof—between audit practice and audit research. As such, our findings lead us to a peripheral, but critical follow-up research question: Why do these gaps exist? These gaps do not exist in a vacuum. Audit research evolves over time with doctoral students and faculty looking for new topics and questions to research. The relationship between audit practice and audit research has also evolved over many years to its current state. For example, we are not the first to discover that there is paucity of research regarding accounting firm governance. We are confident that other researchers have made the same discovery in the past. So, the paucity of accounting firm governance research does not mean that it was a completely undiscovered topic until the Committee included it in some recommendations; instead, it is more likely that researchers have considered some aspects of accounting firm governance, but rejected moving forward on the research. As such, besides the gaps between practice and research topics that we explored being

research opportunities, an additional research opportunity is identifying reasons why those gaps exist and identifying ways to eliminate or overcome any research inhibitors.

For those recommendations with zero matches, in particular, does that mean that the existing body of audit research has no contribution to make to those recommendations? Do the zero matches (as well as low-numbered matches) indicate robust, new, overlooked research opportunities? The answers to these questions are mixed and reflect a combination of possible reasons for the gaps, including in part:

1. **Little incentive for pedagogical research.** Many of the Committee’s Human Capital recommendations include pedagogical topics and, as discussed earlier, pedagogical research has a lower status than research related to discipline-based scholarship or contributions to practice and, historically, pedagogical research has less probability of being published in top-tier accounting and auditing journals.
2. **Little incentive for qualitative research.** Many of the Committee’s recommendations are also related to developing and implementing policies and procedures for regulators. In other disciplines outside of accounting and auditing (e.g., health care delivery), qualitative research techniques are frequently used to explore policy development and implementation issues. Qualitative research methods include: focus groups, in-depth interviews, nominal group techniques, observational studies, and case studies. However, similar to the comments regarding pedagogical research, historically, qualitative research has less probability of being published in top-tier accounting and auditing journals.
3. **The accounting firms as black boxes.** A frequently stated complaint from audit researchers is the unwillingness of accounting firms to share internal materials and data. It is fortunate that the Committee includes a specific recommendation (Human Capital Recommendation 3c), which in part says, “...to provide practice materials for academic research and for participation of professionals in behavioral and field study projects...” This recommendation is in line with increased (enhanced) communication between audit researchers and audit practice as called for by Sullivan (1993) and might move audit research to close some of the gaps identified in our exploratory study.

With that said, some of the recommendations include subject matters that are going to be essentially off limits for audit researchers. Although practitioners are impacted by academic audit research, there is no interest among practitioners for academic audit researchers telling them how to manage their practices. In fact, some literature characterizes these areas of audit research as threatening and taboo (Power 2003).

Because of the litigation environment in the U.S., it is hard to envision a time in the future where accounting firms will be very open in sharing sensitive internal data with audit researchers. However, the relationships between audit practitioners and audit researchers seem to cover a wide spectrum. We purposely used the term *audit practitioners* instead of *accounting firms* because, ultimately, relationships are about people, not organizations. It is one thing for an audit researcher to sign a non-disclosure agreement (NDA) regarding sensitive firm/client information made available to the audit researcher, but firm representatives have to believe (trust) the audit researcher will not publicly disclose sensitive information. An NDA is of little value once the sensitive information becomes part of the public domain.

4. **Overseers as black boxes.** Several of the Committee's recommendations dealt with regulatory policies and procedures. As stated above, researchers frequently complain about the lack of access to internal accounting firm materials, however, overseers, particularly government regulators, can be even more reluctant to share materials. As discussed above, there is always the possibility that an accounting firm will share sensitive data with a researcher they trust. In contrast, regulators (e.g., PCAOB and SEC) can always say that it would be against federal laws to share specific internal data with audit researchers. That can be a very high hurdle that even with Freedom of Information Act laws cannot always get across.
5. **New or innovative premises.** A recommendation topic could be new or innovative and, therefore, would not be expected to appear in *prior* audit research. For instance, Firm Structure and Finances Recommendation 2(b), in part, recommends regular and formal roundtable meetings of regulators and other governmental enforcement bodies in a cooperative effort to improve regulatory effectiveness and reduce the incidence of duplicative and potentially inconsistent enforcement regimes.

6. **Recommendation too specific or too broad to be testable.** A recommendation topic could be either too specific or too general (or broad) to be the basis of a testable research question. For instance, Firm Structure and Finances Recommendation 2, in part, encourages greater regulatory cooperation and oversight of the public company auditing profession to improve the quality of the audit process and enhance confidence in the auditing profession and financial reporting.

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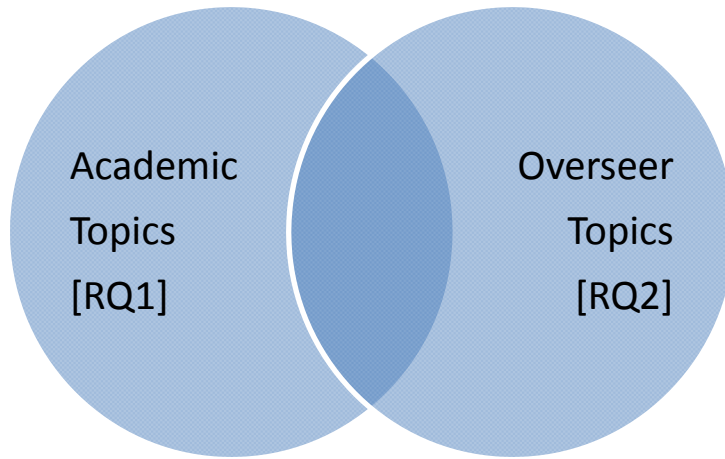


Figure 1. Relationship of Academic Research Topics and Overseers Topics.

Audit Research Themes	
1. Audit Market	2. Audit Procedures
3. Audit Report & Financial Statement Users	4. Audit Sampling
5. Auditor-Auditee Contract	6. Auditor-Client Relationship
7. Auditor's Judgment	8. Corporate Governance
9. Education	10. Fraud Risk & Audit Risk
11. Going Concern Opinion	12. International Regulation
13. Liability & Litigation	14. Non-Audit Services
15. Profession	16. Tax Audit

Table 1: 16 Audit Research Themes from Lesage and Wechtler (forthcoming).

Title (Common Name)	Committee's Final Report	O'Malley Panel	Treadway Commission	Cohen Commission
Sponsoring Organization	U.S. Department of Treasury	Public Oversight Board	AICPA, AAA, FEI, IIA, and NAA	AICPA
Publication Date	2008	2000	1987	1978
Overarching Question(s)	How to improve audit quality?	How is auditor's performance evaluated?	Which causal factors can lead to fraudulent financial reporting? How can the incidence of fraudulent financial reporting be reduced?	What is the independent auditor's role? What are the independent auditors' responsibilities?
Panel/Commission Composition	21 members including one full- time academic (Gary J. Previts, Case Western University)	8 members including one full-time academic (Zoe- Vonna Palmrose, University of Southern California) and one emeritus (Louis Lowenstein, Columbia University)	6 members; no academic	7 members; including one academic (Lee J. Seidler, New York University from 1965 to 1985)
Chair/Co-Chair	Arthur Levitt, Jr. and Donald T. Nicolaisen (former SEC Chairman and former SEC Chief Accountant)	Shaun F. O'Malley (former chair of Price Waterhouse LLP)	James C. Treadway, Jr. (executive Vice President and General Counsel Paine Webber Incorporated)	Manuel F. Cohen (former SEC chairman)
Number of recommendations	31 (38 counting sub- recommendations)	Approx. 350 including sub- recommendations	49	Embedded ^b
Overarching Recommendations	Improvement of the accounting education; enhancement of the quality of the audit process and improvement of the confidence in the audit profession	Auditors' performance of "forensic-type" procedures on every audit to improve fraud detection capabilities, audit	Improving the auditing standards in terms of auditor's responsibility for fraud detection, enhancing audit quality through	Improvement and clarification of the auditor's role in financial reporting, including enhancing auditor

	through greater regulatory cooperation and oversight of the public auditing profession, including strengthening auditor independence; improvement of the governance and transparency at audit firms; enhanced disclosure in terms of auditor change; and greater competition on the audit market.	committee pre-approval of independent auditors' non-audit services, and enhancement of audit methodologies.	strengthened peer review and concurring partner review, and a revised auditor's report to clarify the auditor's role and state whether the auditor has reviewed and evaluated the company's internal control system.	communication, fraud detection and quality control mechanisms, improving accounting education and strengthening auditor independence.
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Notes: ^a AICPA: American Institute of Certified Public Accountants; AAA: American Accounting Association; FEI: Financial Executives Institute; IIA: Institute of Internal Auditors; NAA: National Association of Accountants.

b The Cohen Commission Report did not delineate and explicitly label their recommendations as "recommendations" as was done in the other reports; instead their numerous recommendations were embedded in their discussions of specific topics with expressions such as "To improve X, auditors should..."

Table 2: Summary of Four Major U.S. Overseers' Reports

Themes	1981-2005 Distribution	Human Capital	Firm Structure & Finances	Concentration & Competition
Auditor's Judgment	14.1%			
Audit Report & Financial Statement Users	13.8%		R5 (Auditor reporting model) R6 (Auditor partner signature)	
Auditor-Client Relationship	12.1%			R4, R4a, & R4b (Independence requirements)
Profession	8.3%	R2, R2a, R2b (Minorities)	R2, R2b (Regulatory cooperation) R2a (Mobility provision) R2c (State board independence) R3 (Independent boards for audit firms) R7 (Audit firm annual report)	R1b (Small firm inclusion) R2 (Catastrophic firm risk); R2a (PCAOB monitor catastrophic risks); R2b (Preservation and rehabilitation of larger firms)
Audit Procedures	6.9%			
Going Concern Opinion	6.8%			
Auditor-Auditee Contract	6.7%		R4 (Auditor change disclosure)	R1a (3rd party auditor provisions); R5 (Shareholder auditor ratification)
International Regulation	5.6%			R6 (Coordinate PCAOB & foreign counterparts)
Audit Market	4.6%			R1 (Small firm barriers)
Corporate Governance	4.1%			
Fraud Risk & Audit Risk	3.8%		R1 (Sharing fraud information)	R3 (Audit quality key indicators)

Audit Sampling	3.3%			
Education	3.0%	R1, R1b & R1c (Market-driven curricula); R1a (Update CPA exam); R5 (Future structure of higher ed.) R2c (Community colleges/ minorities) R2d (Cross-sabbaticals at Black Colleges) R2e (Minority PhD students) R3, R3a, R3b, R3c (Supply of faculty) R4 (Consistent demographic reporting)		
Liability & Litigation ¹	2.9%			
Non-Audit Services	2.1%			
Tax Audit	1.7%			

¹ A significant part of the Committee’s recommendations discussed litigation issues, but the committee couldn’t reach a consensus on which to make recommendations.

Table 3: Matching Recommendations to Audit Research Categories

Recommendations	Root P(s)	Matches	Matches for p and q
	Aliases		
Human Capital			
Recommendation 1. Implement market-driven curricula	curricula; market driven	6	0
	curriculum; teaching; education		
(a) Regularly update accounting certification examinations	examination [CPA]	2	0
	exam; certificate		
(b) Teaching materials reflecting real word changes	materials[teaching]	0	0
(c) Incorporate current market developments into accounting curricula	curricula	6	0
	curriculum; teaching; education		
Recommendation 2. Improve minority representation in the profession	minorities	7	0
	African American; black Americans; minority; gender; women		
(a) Recruit minorities into the profession	minorities[recruit]	7	0
	African American; black Americans; minority; gender; women		
(b) Increase minorities retention in the profession	minorities[retention]	7	0
	African American; black Americans; minority; gender; women		
(c) Role of community colleges to recruit minorities	minorities[community college]	0	0
	African American; black Americans; minority; gender; school; university; women		
(d) Cross-sabbaticals/internships with Historically Black College's/University's faculty/students	cross-sabbaticals; internship; colleges[black]	0	0
	African Americans; black Americans; school; university		
(e) Increased numbers of minority accounting doctorates	minority[doctorates]	0	0
	African Americans; black Americans; PhD		
Recommendation 3. Qualified accounting faculty to meet future demand	supply[faculty]	0	0
	department; institute		
(a) Increased supply of accounting faculty	supply[faculty]; supply[professionally qualified]	0	0

	(PQ)]		
	department; institute; professional; practitioner		
(b) Emphasize the utility/effectiveness of cross-sabbaticals	cross(-)sabbaticals	0	0
	internship; fellowship		
(c) Fund accounting (faculty) research; practicing accountants as AQ and PQ	1. funding[faculty research] 2. materials[practice] 3. accountants[practicing to AQ and PQ]	0	0
	fund; practitioner		
Recommendation 4. Demographic/ higher education program profile data	1. data[demographic]; 2. data[education profile]	0	0
Recommendation 5. Higher education for the profession.	education[post graduate]	0	0
	teaching		
Firm Structure & Finances			
Recommendation 1 Sharing fraud information	fraud	36	0
Recommendation 2 Regulatory cooperation/oversight of the profession	cooperation[regulatory]	0	0
	co-operation; collaboration; teamwork;		
(a) Mobility provisions o	mobility provisions	0	0
	agility provision		
(b) Regulatory cooperation	cooperation[regulatory]	0	0
	co-operation; collaboration; teamwork; regulator		
(c) Greater financial/operational independence of state boards of accountancy	boards[state]	0	
	NASBA		
Recommendation 3 Independent boards for audit firms	1. governance [firm]; 2. board[firm]	4	0
	culture; organization; structure; transparency		
Recommendation 4 Auditor change disclosure	1. change [auditor]; 2. change[partner]	34	2
	switch; rotation		
Recommendation 5 Improvements to the auditor's reporting model	1. reporting model[auditor's]; 2. fraud responsibility	33	2

	report [auditor's]; expectation (gap)[public]		
Recommendation 6 Mandating engagement partner's signature	signature[partner]	0	0
Recommendation 7 Larger audit firm annual report	annual report[firm]	1	1
	financial reporting		
Concentration & Competition			
Recommendation 1 Reduce small firms' barriers	competition [small firms]	18	2
	barriers; entry ; second-tier; concentration		
(a) Third party auditor provisions	auditor choice [third party]	4	0
	bank(er) ; creditor; loan office ; underwriter		
(b) Inclusion of smaller firms representatives' in committees etc.	inclusion[small firm]	0	0
	involvement; incorporation		
Recommendation 2. Monitor catastrophic firm risk, preservation of larger troubled firms	preservation[troubled firm]	1	0
	control; monitor ; problem; risk		
(a) PCAOB monitor catastrophic firm risk	risk[catastrophic firm]	0	0
	financial health		
(b) Preservation/rehabilitation of troubled larger firms	preservation[troubled firm]	1	0
	control; monitor ; problem; risk		
Recommendation 3. Develop audit quality key indicators	quality [audit]	84	-----
Recommendation 4. Understanding of/compliance with auditor independence.	independence [auditor]	60	2
(a) Single document for SEC/PCAOB independence requirements	independence [auditor]	60	2
(b) Healthy professional skepticism	skepticism [professional]	2	0
	criticalness		
Recommendation 5. Shareholder auditor ratification	ratification [shareholder]	3	0
Recommendation 6. Coordinate PCAOB and foreign counterparts	collaboration[regulatory]	0	0
	co(-)operation; teamwork; regulator		

Notes: bold: terms with matches; []: restrictive term.

Table 4: Number of Audit Research Literature Matches

APPENDIX

ADVISORY COMMITTEE'S RECOMMENDATIONS

Human Capital Recommendations

Recommendation 1. Implement market-driven, dynamic curricula and content for accounting students that continuously evolve to meet the needs of the auditing profession and help prepare new entrants to the profession to perform high quality audits.

(a) Regularly update the accounting certification examinations to reflect changes in the accounting profession, its relevant professional and ethical standards, and the skills and knowledge required to serve increasingly global capital markets.

(b) Reflect real world changes in the business environment more rapidly in teaching materials.

(c) Require that schools build into accounting curricula current market developments.

Recommendation 2. Improve the representation and retention of minorities in the auditing profession so as to enrich the pool of human capital in the profession.

(a) Recruit minorities into the auditing profession from other disciplines and careers.

(b) Institute initiatives to increase the retention of minorities in the profession.

(c) Emphasize the role of community colleges in the recruitment of minorities into the auditing profession.

(d) Emphasize the utility and effectiveness of cross-sabbaticals and internships with faculty and students at Historically Black Colleges and Universities.

(e) Increase the numbers of minority accounting doctorates through focused efforts.

Recommendation 3. Ensure a sufficiently robust supply of qualified accounting faculty to meet demand for the future and help prepare new entrants to the profession to perform high quality audits.

(a) Increase the supply of accounting faculty through public and private funding and raise the number of professionally qualified faculty that teach on campuses.

(b) Emphasize the utility and effectiveness of cross-sabbaticals.

(c) Create a variety of tangible and sufficiently attractive incentives that will motivate private sector institutions to fund both accounting faculty and faculty research, to provide practice materials for academic research and for participation of professionals in behavioral and field study projects, and to encourage practicing accountants to pursue careers as academically and professionally qualified faculty.

Recommendation 4. Develop and maintain consistent demographic and higher education program profile data.

Recommendation 5. Encourage the AICPA and the AAA jointly to form a commission to provide a timely study of the possible future structure of higher education for the accounting profession.

Firm Structure & Finances Recommendations

Recommendation 1 Urge the Securities and Exchange Commission (SEC), and Congress as appropriate, to provide for the creation by the Public Company Accounting Oversight Board (PCAOB) of a national center to facilitate auditing firms' and other market participants' sharing of fraud prevention and detection experiences, practices, and data and innovation in fraud prevention and detection methodologies and technologies, and commission research and other fact-finding regarding fraud prevention and detection, and further, the development of best practices regarding fraud prevention and detection.

Recommendation 2 Encourage greater regulatory cooperation and oversight of the public company auditing profession to improve the quality of the audit process and enhance confidence in the auditing profession and financial reporting.

(a) Institute the following mechanism to encourage the states to substantially adopt the mobility provisions of the Uniform Accountancy Act, Fifth Edition (UAA): If states have failed to adopt the mobility provisions of the UAA by December 31, 2010, Congress should pass a federal provision requiring those states to adopt these provisions.

(b) Require regular and formal roundtable meetings of regulators and other governmental enforcement bodies in a cooperative effort to improve regulatory effectiveness and reduce the incidence of duplicative and potentially inconsistent enforcement regimes.

(c) Urge the states to create greater financial and operational independence of their state boards of accountancy.

Recommendation 3 Urge the PCAOB and the SEC, in consultation with other federal and state regulators, auditing firms, investors, other financial statement users, and public companies, to analyze, explore, and enable, as appropriate, the possibility and feasibility of firms appointing independent members with full voting power to firm boards and/or advisory boards with meaningful governance responsibilities to improve governance and transparency of auditing firms.

Recommendation 4 Urge the SEC to amend Form 8-K disclosure requirements to characterize appropriately and report every public company auditor change and to require auditing firms to notify the PCAOB of any premature engagement partner changes on public company audit clients.

Recommendation 5 Urge the PCAOB to undertake a standard-setting initiative to consider improvements to the auditor's standard reporting model. Further, urge that the PCAOB and the SEC clarify in the auditor's report the auditor's role in detecting fraud under current auditing standards and further that the PCAOB periodically review and update these standards.

Recommendation 6 Urge the PCAOB to undertake a standard-setting initiative to consider mandating the engagement partner's signature on the auditor's report.

Recommendation 7 Urge the PCAOB to require that, beginning in 2010, larger auditing firms produce a public annual report incorporating (a) information required by the EU's Eighth Directive, Article 40 Transparency Report deemed appropriate by the PCAOB, and (b) such key indicators of audit quality and effectiveness as determined by the PCAOB in accordance with Recommendation 3 in Chapter VIII of this Report. Further, urge the PCAOB to

require that, beginning in 2011, the larger auditing firms file with the PCAOB on a confidential basis audited financial statements.

Concentration & Competition Recommendations

Recommendation 1 Reduce barriers to the growth of smaller auditing firms consistent with an overall policy goal of promoting audit quality. Because smaller auditing firms are likely to become significant competitors in the market for larger company audits only in the long term, the Committee recognizes that Recommendation 2 will be a higher priority in the near term.

(a) Require disclosure by public companies in their registration statements, annual reports, and proxy statements of any provisions in agreements with third parties that limit auditor choice.

(b) Include representatives of smaller auditing firms in committees, public forums, fellowships, and other engagements.

Recommendation 2. Monitor potential sources of catastrophic risk faced by public company auditing firms and create a mechanism for the preservation and rehabilitation of troubled larger public company auditing firms.

(a) As part of its current oversight over registered auditing firms, the PCAOB should monitor potential sources of catastrophic risk which would threaten audit quality.

(b) Establish a mechanism to assist in the preservation and rehabilitation of a troubled larger auditing firm. A first step would encourage larger auditing firms to adopt voluntarily a contingent streamlined internal governance mechanism that could be triggered in the event of threatening circumstances. If the governance mechanism failed to stabilize the firm, a second step would permit the SEC to appoint a court-approved trustee to seek to preserve and rehabilitate the firm by addressing the threatening situation, including through a reorganization, or if such a step were unsuccessful, to pursue an orderly transition.

Recommendation 3. Recommend the PCAOB, in consultation with auditors, investors, public companies, audit committees, boards of directors, academics, and others, determine the feasibility of developing key indicators of audit quality and effectiveness and requiring auditing firms to publicly disclose these indicators. Assuming development and disclosure of indicators of audit quality are feasible, require the PCAOB to monitor these indicators.

Recommendation 4. Promote the understanding of and compliance with auditor independence requirements among auditors, investors, public companies, audit committees, and boards of directors, in order to enhance investor confidence in the quality of audit processes and audits.

(a) Compile the SEC and PCAOB independence requirements into a single document and make this document website accessible. The American Institute of Certified Public Accountants (AICPA) and state boards of accountancy should clarify and prominently note that differences exist between the SEC and PCAOB standards (applicable to public companies) and the AICPA and state standards (applicable in all circumstances, but subject to SEC and PCAOB standards, in the case of public companies) and indicate, at each place in their standards where differences exist, that stricter SEC and PCAOB independence requirements applicable to public company auditors may supersede or supplement the stated requirements. This compilation should not require rulemaking by either the SEC or the PCAOB because it only calls for assembly and compilation of existing rules.

(b) Develop training materials to help foster and maintain the application of healthy professional skepticism with respect to issues of independence and other conflicts among public company auditors, and inspect auditing firms, through the PCAOB inspection process, for independence training of partners and mid-career professionals.

Recommendation 5. Adopt annual shareholder ratification of public company auditors by all public companies.

Recommendation 6. Enhance regulatory collaboration and coordination between the PCAOB and its foreign counterparts, consistent with the PCAOB mission of promoting quality audits of public companies in the United States.