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THE DAWNING OF THE AGE OF QUANTITATIVE/EMPIRICAL METHODS IN ACCOUNTING RESEARCH: EVIDENCE FROM THE LEADING AUTHORS OF *THE ACCOUNTING REVIEW*, 1966-1985

Abstract: This study documents changes that took place in *The Accounting Review* during 1966-1985 compared with earlier 20-year periods, 1926-1945 and 1946-1965. The comparisons are based on examining the articles published in *The Accounting Review* and written by its leading authors (i.e., those authors who published the most articles). The article considers topics, research methods, financial accounting subtopics, citation analyses (including influential journals, articles, books, and authors), length, author background, and other items. This study shows that *The Accounting Review* evolved into a journal with demanding acceptance standards whose leading authors were highly educated accounting academics who, to a large degree, brought methods and tools from other disciplines to bear upon accounting issues.

INTRODUCTION

Accounting research changed noticeably in the 1960s. Various factors played a role in this change, including criticisms of business education in the 1959 reports by Gordon and Howell and by Pierson [Dyckman and Zeff, 1984]; the adoption by the American Assembly of Collegiate Schools of Business in 1967 of the doctorate as the terminal degree for accounting faculty [Bricker and Previts, 1990]; change in research and writing standards as required by business faculties in promotion and

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tenure decisions [Langenderfer, 1987]; and a general belief that scientific methods could help solve social and business problems [Whitley, 1988]. Chatfield [1975] noted that *The Accounting Review* was in transition during the late 1950s and early 1960s, with nonaccountants making contributions using methods from other disciplines. In addition, Chatfield [1975, p. 6] noted that in the 1960s, there was a trend toward empirical studies.

While it is generally acknowledged that there was a change in the type of research published in *The Accounting Review*, the extent of that change has yet to be documented. Were previous methods abandoned altogether? Among the newer research methods, which were the most popular? Did interest in financial accounting topics continue to decline? Were new, never-considered topics addressed? Which journals/authors/articles/books influenced the contributors to *The Accounting Review*? What was the educational/professional background of the contributors, and how did their work differ from that of their predecessors?

These questions are here addressed for the leading authors (i.e., those authors who published the most articles; see Table 1 for the list of names) of *The Accounting Review* during the 1966-1985 period.¹ The results are directly comparable with *The Accounting Review's* leading authors during the 1926-1945 and 1946-1965 periods as reported by Fleming et al. [1990, 1991].² Hence, this study extends our previous work by analyzing the output of the leading authors during 1966-1985, the next 20-year period.³

Specifically, this research analyzes, relative to the earlier studies, the following attributes of the articles published by the leading authors: (1) topic, (2) research method, (3) cross-classification of topic and research method, (4) financial accounting

¹Heck and Bremser [1986] compiled the list of the leading authors. For their list based on "all articles," Heck and Bremser counted main articles, notes, and articles appearing in the Education Research (previously, Teacher's Clinic) and Financial Reporting Sections. Not included were comments, replies, and articles appearing in featured columns (e.g., Accounting Exchange).

²Heck and Bremser [1986] identified the leading authors for each of the 20-year periods 1926-1945, 1946-1965, and 1966-1985. There has been a strong interest in the accounting literature in prolific authors as evidenced by Heck and Bremser's article as well as others [Williams, 1985; Jacobs et al., 1986; Richardson and Williams, 1990].

³The emphasis in this study is on analyzing the next 20-year period. One of the major findings, as reflected in the title to the paper, is the shift to quantitative/empirical research methods.

subtopics, and (5) citations of articles and books including journals and authors. Other details are also provided, such as article length, background information on the leading authors, and other changes in *The Accounting Review*. Through examining and classifying the individual articles of the leading authors, conducting a “single” citation analysis (similar to that of Brown and Gardner [1985a, 1985b] and others), reporting other details, and comparing the 1966-1985 results to those of the earlier periods, a perspective emerges on the evolving nature of accounting research in the work of the leading authors.

The results of these analyses are presented in the following sections of this paper. The first section discusses the topics and research methods. The subsequent section reports the results of the citation analysis. This is followed by sections on article length, biographical background of the leading authors, and other changes. A synthesis of the nature of the changes in the work of the leading authors of *The Accounting Review* is contained in the final section.

TOPICS AND RESEARCH METHODS

As in the previous periods examined by Fleming et al. [1990, 1991], classification schemes adapted from Sundem [1987] were used to classify the articles by topic and research method. The topic classification scheme is shown in Exhibit 1, while the research method categorization is displayed in Exhibit 2.⁴ Each of the three authors of this paper independently classified each article written by the leading authors with respect to topic (as well as to financial accounting subtopic) and research method. The objective was to determine the primary emphasis of topic and research method in the article. The three authors then reached group decisions as to the appropriate classifications. In almost all cases, a unanimous consensus was

⁴The topic classification scheme is identical to that reported in Fleming et al. [1991, p. 31]. The research method categorization is slightly embellished to be more definitive. Specifically, the description of “economic modeling” was expanded to include explicitly papers dealing with information economics and economic choice theory, which have strong elements of analytical and statistical modeling. In addition, the description of “history” was expanded to include papers tracing the development of a practice or concept which relied on secondary sources, not just those papers employing archival methods. This description better reflects the classification decisions made in this and the earlier periods. Also, book reviews of accounting classics are included in the history category. Similarly, the description of “deductive” was expanded to reflect better the nature of the articles classified as such.

achieved. Occasionally categories were decided by a split 2-to-1 vote.

EXHIBIT 1

Topic Classification Scheme

FINANCIAL (Fin): External reporting issues even though they may impact internal reporting also. Inventory valuation papers are classified as financial rather than managerial.

MANAGERIAL (Man): Internal reporting issues.

EDUCATION (Edu): Studies on pedagogy and curriculum matters.

RESEARCH METHODS (Res): Focused completely on such methods without direct application to an accounting issue.

AUDITING (Aud): Related to tasks performed by auditors.

PROFESSIONAL (Pro): Professional practice of accounting firms.

TAX: Federal income tax issues.

INFORMATION SYSTEMS (Inf): Broad range of papers from office automation, to evaluation methods for accounting software, to the effects of different data storage systems on decision making, etc.

NONPROFIT/GOVERNMENTAL (Non): Requiring the special circumstances of such organizations to be a major influence on the research.

INTERNATIONAL (Int): Assessed uniquely international aspects of an issue such as differences in accounting practices, generally involving more than one country.

OTHER (Oth): Not related to one of the above.

Source: adapted from Sundem [1987, pp. 194-195]

EXHIBIT 2

Research Method Classification Scheme

DEDUCTIVE (Ded): The deductive studies that do not fit in other categories, including opinion pieces. These nonempirical studies are primarily verbal/descriptive-type articles where a logical conclusion follows from a set of assumptions or premises (other than modeling studies). In addition, this category was interpreted to include inductive and legal research methods as well.

ANALYTICAL MODELING (Ana): Studies using models with no specific underlying economic theory but using mathematical techniques.

GENERAL EMPIRICAL (Gen): A catchall that includes primarily descriptive empirical work.

ECONOMIC MODELING (Eco): Studies which bring economic analysis to bear on a topic; they may be mathematical or verbal models. Papers based on information economics or economic choice theory are included here.

STATISTICAL MODELING (Sta): Studies which use models where the main focus is on statistical models.

CAPITAL MARKET (Cap): Studies using security prices to measure reaction or association.

BEHAVIORAL (Beh): Studies conducted to measure the reaction of students or professional subjects.

HISTORICAL (His): Papers that use archival methods to study an issue of current interest. Also included are papers that trace the development of a practice or concept using secondary sources and book reviews of accounting classics.

EXHIBIT 2 (continued)

SIMULATION (Sim): Studies where the analysis is so complex that computer simulation is necessary.

SURVEY (Sur): Studies reporting information gathered by questionnaire about practices or attitudes.

Source: adapted from Sundem [1987, p. 198]

Topics: Table 1 shows that the leading authors published 154 articles in ten topical areas.⁵ The international area was the only one in which they did not publish a paper. Financial accounting was the most popular topic (48% of the articles), followed by managerial accounting (25%), education (8%), research methods (6%), and auditing (5%). The leading authors published only a few papers in the professional, tax, information systems, and nonprofit/governmental areas.

The leading authors of the 1966-1985 period published essentially the same percentage of their articles in the financial accounting area as did the leading authors of the 1946-1965 period. Although this percentage is down from the 1926-1945 period, it nevertheless shows the continued strong interest in financial accounting among the leading authors. Interestingly, all but Manes of the 19 leading authors published a financial accounting article in *The Accounting Review* during the 1966-1985 period. Similarly, only two (William Campfield and Robert Van Voorhis) of the 22 leading authors during 1946-1965 and only one (Lloyd Morey) of the 19 leading authors during 1926-1945 did not publish a financial accounting article in *The Accounting Review*. Hence, for 60 years there has been widespread interest in financial accounting among the individual leading authors.

⁵As noted, the leading authors and their respective number of publications were originally identified by Heck and Bremser [1986]. With only two exceptions, using the criteria identified by Heck and Bremser [1986, pp. 735-736], articles equal in number to that reported by them were located. The two exceptions were for Ijiri and Swieringa where one less than the number of articles reported by Heck and Bremser could be found. Also, it should be noted that five of the articles were coauthored by the leading authors listed in Table 1. Hence, there were only 149 actual articles examined. The coauthored articles were classified as financial (three articles), managerial (one article), and auditing (one article). Adjusting the overall classification numbers for this double counting does not appreciably affect the results.

TABLE 1
Major Topic by Author

	Fin*	Man	Edu	Res	Aud	Pro	Tax	Inf	Non	Int	Oth	Total
Joel Demski	4	8			1							13
Lawrence Revsine	10		1	2								13
Harold Bierman	9	1										10
A. R. Abdel-khalik	4	2		1	1						1	9
Robert Kaplan	3	6										9
Yuji Ijiri	5	2			1							8
Rene Manes		7						1				8
James McKeown	5		3									8
Robert Ashton	1		1	3	2							7
William Beaver	5			1							1	7
Ronald Copeland	2		2	1			1		1			7
Edward Deakin	3		3		1							7
Don DeCoster	1	3	2			1						7
Robert Jensen	1	4		1							1	7
John Livingstone	3	3						1				7
Enrico Petri	2	3					2					7
Roman Weil	6		1									7
Jerry Weygandt	6		1									7
Robert Swieringa	4				1	1						6
Total	74	39	13	9	7	3	3	2	1	0	3	154
Percent, 1966-85:	48	25	8	6	5	2	2	1	1	0	2	100
Percent, 1946-65:	46	13	21	0	1	8	2	0	2	5	3	100**
Percent, 1926-45:	67	6	8	0	2	3	3	0	8	0	4	100**

*see Exhibit 1 for abbreviations

**does not add up to 100 percent because of rounding errors

Managerial accounting was the second most popular topic during the 1966-1985 period. Its 25% share of the articles was nearly double that of the 13% of the 1946-1965 period which, in turn, was more than double the 6% of the 1926-1945 period. It was the only topic whose proportion of articles increased in both 1966-1985 and 1946-1965.

The percentage of education articles during 1966-1985 declined to 8% from 21% during 1946-1965. This decline was likely due, at least in part, to the changing role of education articles in *The Accounting Review*. In 1971, the "Education Research and Academic Notes" section of *The Accounting Review* replaced the "Teacher's Clinic" where Flesher [1991, p. 153] reported articles on education research, teaching methods, and "think" pieces that had been published. In 1975, the name of the section was changed to "Education Research," with the academic notes portion [Tracy, 1971, p. 156], consisting of classroom innovations, practical pointers, observations, materials' development, clever examples, or other experiences, dropped. The "Education Research" section was restricted to "...re-

search findings regarding theory and technique applied in accounting courses . . . ” and “ . . . developments . . . that are of primary and fundamental importance” [DeCoster, 1975, p. 160]. Hence, the section became more restrictive in the type of articles which could be published. In addition, Flesher [1991, p. 154] noted that *Issues in Accounting Education* started publication in 1983 on an experimental basis, and that the “Education Research” section of *The Accounting Review* was discontinued in 1986 when *Issues* began publication on a regular, semiannual basis.

Although still relatively small in number, articles on research methods and auditing increased among the leading authors during the 1966-1985 period. The interest in research methods reflected the use of quantitative/empirical research methods of the era. The increase in auditing articles was apparently part of a general trend among all authors in *The Accounting Review*. Sundem [1987], in his analysis of all published articles in *The Accounting Review* during his term as editor (1982-1986), reported that auditing papers represented 16 percent of the articles.⁶

Few articles were published by the leading authors in the other areas during the 1966-1985 period or, in most cases, in these areas during the prior periods. Moreover, the exceptions were largely due to the efforts of specific individual authors. For example, 5% of the articles during the 1946-1965 period were in the international area. Of the ten international articles published, nine were authored by Mary Murphy. Similarly, 8% of the articles during 1946-1965 were in the professional area, but nine of the 15 articles in this area were authored by Campfield. In addition, while 8% of the 1926-1945 articles were in the nonprofit/governmental area, six of the 13 were authored by Morey. Thus, there was not a widespread interest among the leading authors in professional, tax, information systems, nonprofit/governmental, or international areas during the first 60 years of *The Accounting Review*.

⁶Sundem’s results, based on all authors, were not directly comparable to those of this study which are based only on the work of leading authors. In addition, his results were just for 1982-1986 rather than the 20-year period examined in this study. For those readers with an interest, the other major topical areas while Sundem [1987, p. 202] was editor were financial accounting (45% of articles published), managerial accounting (17%), tax (6%), and professional (5%). The remaining areas constituted 2% or less of the articles.

Research Methods: Table 2 illustrates a dramatic change in the research methods used by the leading authors. The use of the deductive method fell from over 80% during the 40-year period 1926-1965 to only 29% during 1966-1985.⁷ Moreover, each of the other methods was used more during 1966-1985 than 1946-1965.⁸

TABLE 2
Research Methodology by Author

	Ded*	Ana	Gen	Eco	Sta	Cap	Beh	His	Sim	Sur	Total
Joel Demski		3		6	1				3		13
Lawrence Revsine	7		1	1		1		1	1	1	13
Harold Bierman	5	3		2							10
A. R. Abdel-khalik	1		1	1		2	3			1	9
Robert Kaplan	2	3	1		1	1		1			9
Yuji Ijiri	2	2		1	2			1			8
Rene Manes	2	5		1							8
James McKeown	3		2			1	2				8
Robert Ashton	1		2		4						7
William Beaver	2		1	1		3					7
Ronald Copeland	1		4				1			1	7
Edward Deakin	2		2		1	1			1		7
Don DeCoster	2		2		1		1	1			7
Robert Jensen	1	2	1		3						7
John Livingstone	2	2	2		1						7
Enrico Petri		5		2							7
Roman Weil	3	2	2								7
Jerry Weygandt	4	1	2								7
Robert Swieringa	4			1		1					6
Total	44	28	23	16	14	10	7	4	4	4	154
Percent, 1966-85:	29	18	15	10	9	6	5	3	3	3	100**
Percent, 1946-65:	87	4	2	1	2	1	0	2	0	2	100**
Percent, 1926-45:	84	1	2	1	0	0	0	11	0	1	100

**see Exhibit 2 for abbreviations

**does not add up to 100 percent because of rounding errors

⁷The classification "deductive" is a misnomer to some extent. Modeling studies, for example, could also be considered "deductive." Opinion pieces are not "deductive." However, rather than developing an alternative classification scheme, the one developed by Sundem [1987] was adopted since he developed it specifically for *The Accounting Review* and since developing a definitive classification scheme would be impossible and inevitably arbitrary to some degree. Hence, the articles written by the leading authors were classified into that category which was considered best from those specified by Sundem (excluding "other" which was not defined by Sundem). Consequently, the "deductive" category came to represent other studies which were primarily verbal/descriptive, including legal research methods and even a few inductive-type studies. Perhaps a better classification title is "other deductive/descriptive."

⁸Again, the double counting of five articles because of coauthorship among the leading authors (see footnote 5) did not appreciably affect the results. Two of these articles were classified as economic modeling, and the others as analytical modeling, statistical modeling, and capital markets respectively.

Perhaps the most surprising result is that the deductive approach was used to the extent found despite the changing research method environment described previously. The change away from the deductive method to quantitative/empirical methods did not occur all at once. This gradual change is made even more evident by examining the 1966-1975 and 1976-1985 subperiods. Of the 44 articles which primarily used the deductive method, 32 of them (73%) were published during 1966-1975, while only 12 of them (27%) appeared in the later decade. Clearly, 1966-1985 was a transitional period in research methods.⁹

Among the methods other than the deductive method, analytical modeling was the most popular as shown in Table 2. This was followed by general empirical, the other two modeling methods (economic and statistical), and by the empirical areas of capital market and behavioral. Hence, modeling methods tended to lead the change away from the deductive method.¹⁰

Although they were generally employed more in the 1966-1985 period than in the earlier periods (except for the historical method), the research methods of historical, simulation, and survey were used relatively infrequently by the leading authors. It is interesting to note that the historical method was used relatively more commonly during the 1926-1945 period than in subsequent periods. This was largely due to the work of A.C. Littleton and Stanley Howard. Of the 19 articles classified as using the historical method during 1926-1945, 11 of them were authored by Littleton with an additional five by Howard. Hence, as in the case of topics, the efforts of specific authors accounted for the passing popularity of certain methods or topics during the earlier periods.

At the individual author level, all but two (Demski and Petri) of the leading authors during 1966-1985 used the deduc-

⁹Although not directly comparable to the results of this study, it is interesting to note that during Sundem's term as editor (1982-1986), only 4% of the published articles in *The Accounting Review* used the deductive method primarily [Sundem, 1987, p. 202]. Sundem [1987, p. 202] also reported the following frequencies for the other research methods in published articles: general empirical (31%), capital market (14%), behavioral (22%), analytical modeling (6%), economic modeling (7%), statistical modeling (4%), simulation (4%), historical (2%), survey (1%), and other (4%).

¹⁰Sundem [1987, p.196] combined some methods into groups which he referred to as modeling (including analytical, economic, statistical, and simulation) and empirical (including general empirical, behavioral, capital market, and survey). Combining methods into groups in a like manner for this study resulted in modeling with 40% of the articles and empirical with 29%.

tive method. However, only three (Revsine, Weygandt, and Swieringa) employed the deductive method a majority of the time. The leading authors tended to utilize a variety of methods. Petri used the fewest (two), Revsine the most (seven).

Topics by Research Methods: Table 3 shows a cross-classification of topics by research methods. During the previous 20-year periods, the deductive method was clearly the dominant method, not only overall but for each topic except for the "other" category during 1926-1945, when it was the primary method in only 29% of the articles. Its next two lowest percentage rates of use were 60% for the professional area during 1926-1945 and 76% for the managerial area during 1946-1965. In the financial area, it was the primary method in 86% of the articles for 1926-1945 and 87% for 1946-1965.

TABLE 3
Major Topic by Research Methodology

	Ded*	Ana	Gen	Eco	Sta	Cap	Beh	His	Sim	Sur	Total
Financial	24	7	14	8	5	10	1	3	1	1	74
Managerial	5	18	1	6	4		1	1	3		39
Education	7	1	1				2			2	13
Research Methods	2		1		4		2				9
Auditing	1		2	2	1		1				7
Professional	2		1								3
Tax		2	1								3
Information Systems	2										2
Nonprofit/governmental			1								1
International											
Other	1		1							1	3
Total	44	28	23	16	14	10	7	4	4	4	154

*see Exhibit 2 for abbreviations

By contrast, the deductive method during 1966-1985 was the primary method a majority of the time for only the education, professional, and information systems topics.¹¹ Although it was the most popular method in the financial area, the deductive method's use declined to 32% of the time, with 15 of the 24 financial-deductive articles published during the first half

¹¹These results are not affected by the five papers which were coauthored by the leading authors (see footnotes 5 and 8). The five papers were cross-classified as financial-statistical modeling, financial-economic modeling, financial-capital markets, managerial-analytical modeling, and auditing-economic modeling.

(1966-1975) of the time period. Hence, there was a clear trend away from financial-deductive articles during 1966-1985.

Overall, Table 3 shows that a variety of research methods was used in each area. The only methods that were used a majority of the time in a given area (other than the deductive method) were analytical modeling in the tax area and general empirical in the nonprofit/governmental area. However, the modeling methods of analytical, economic, statistical, and simulation tended to dominate managerial articles, accounting for 31 of the 39 articles (79 percent).

Financial Accounting Subtopics: Table 4 shows a classification by subtopic and author of the articles in financial accounting, the most popular area. The articles were classified using the chapter titles taken from an intermediate and an advanced accounting textbook.¹² Each of the 74 financial accounting articles could be classified in this manner. The seven articles classified as "other" each related to a single subtopic (i.e., pensions, inventories, leases, current and contingent liabilities, statement of changes, foreign currency, and intangible assets).

As shown in Table 4, the four most popular subtopics were changing prices, environment and concepts, plant and equipment, and income taxes.¹³ Except for income taxes, there has been considerable interest in each of these topics throughout the first 60 years of *The Accounting Review*. Changing prices was the fourth most popular topic among the leading authors during 1926-1945, and it was tied as the fifth most popular during 1946-1965. Environment and concepts was the most popular topic during each of the periods 1926-1945 and 1946-

¹²For definitiveness, as done for the earlier periods, the chapter titles from Kieso and Weygandt's *Intermediate Accounting* [1989] and Baker et al.'s *Advanced Accounting* [1989] were used as the basis for the classification scheme. Some of the related chapters were combined into a single subtopic (e.g., the two inventory chapters were considered one subtopic, the chapter on depreciation was combined with plant and equipment; etc.). Also, the chapter titles were shortened in some cases (e.g., the first two chapters, entitled "The Environment of Financial Accounting and the Development of Accounting Standards" and "Conceptual Framework Underlying Financial Accounting," were combined into a single subtopic called "environment and concepts").

¹³Because of coauthorship among the leading authors, there were actually only six articles in the plant and equipment subtopic; hence, plant and equipment and income taxes were tied as the third most popular area. The other two subtopics affected by the double counting of articles due to coauthorship were accounting changes (actually three articles) and income statement (actually three articles).

1965, while plant and equipment was the third most popular during 1926-1945 and second during 1946-1965.

TABLE 4
Financial Accounting Subtopics by Author

	Topic Number (see code below)												Other
	1	2	3	4	5	6	7	8	9	10	11	12	
Joel Demski		3							1				
Lawrence Revsine	5	2	1	1									1
Harold Bierman	1	1	3				1		1		1		1
A. R. Abdel-khalik					1					2			1
Robert Kaplan	1		1			1							
Yuji Ijiri	2	2	1										
Rene Manes													
James McKeown	3				1			1					
Robert Ashton		1											
William Beaver				2				2	1				
Ronald Copeland					1				1				
Edward Deakin		1	1					1					
Don DeCoster													1
Robert Jensen		1											
John Livingstone	1			1									1
Enrico Petri	1					1							
Roman Weil	1			1		2					1		1
Jerry Weygandt					1		3			1		1	
Robert Swieringa				1							2		1
Total Articles	15	11	7	6	4	4	4	4	4	3	3	2	7
Total Authors	8	7	5	5	4	3	2	3	4	2	2	2	7

Code for topics: 1 = changing prices; 2 = environment and concepts; 3 = plant and equipment; 4 = income taxes; 5 = accounting changes; 6 = consolidations; 7 = dilutive securities and earnings per share; 8 = financial statement analysis; 9 = income statement; 10 = full disclosure; 11 = long-term liabilities; and 12 = investments.

That changing prices was the most popular during 1966-1985 was not surprising given the high level of inflation during the 1970s and early 1980s, as well as the experiments by the Securities and Exchange Commission (SEC) and the Financial Accounting Standards Board (FASB) with accounting for changing prices. Similarly, the continued interest among the leading authors in standard setting and basic concepts reflected the changes in the standard-setting process at the time, such as the formation of the FASB and the development of its conceptual framework. Less obviously, plant and equipment, especially depreciation, continued to be an area of strong interest. This interest was indicative of an ongoing concern with allocations [Thomas, 1969, 1974].

The income tax subtopic area of financial reporting became

a new area of concern for the leading authors during 1966-1985. There were only three tax articles written by the leading authors during 1946-1965 and none during 1926-1945. This interest reflected issues such as the controversial accounting for deferred taxes at the time prescribed by Accounting Principles Board Opinion No. 11 in 1967 [Johnson, 1996, p. 191].

After adjusting for double counting (see footnote 13), it is interesting to note that these four areas accounted for 54 percent (38 of 71) of the financial accounting subtopics. Hence, there was some concentration of interest among the leading authors. The leading authors of the earlier periods also tended to concentrate on specific topics; the comparable percentage for 1946-1965 was 45 percent (39 of 86) and 61 percent (70 of 115) for 1926-1945. Hence, while a variety of subtopics was addressed, the leading authors focused on contemporary financial accounting issues. For example, ten of the 15 articles classified as changing prices made direct reference to one or more of the professional pronouncements regarding changing prices issued by the Accounting Principles Board, the FASB, or the SEC.¹⁴ As another example, Demski [1973, 1974] referred to the formation of the FASB in his articles dealing with the general problem of standard setting.

A CITATION ANALYSIS

As done for the 1926-1945 and 1946-1965 periods, this study employs a "single" citation analysis to help determine the impact on the leading authors of a wide spectrum of accounting literature. Similar analyses have been performed in other contexts to determine the influence of journals [Dyckman and Zeff, 1984; Brown and Gardner, 1985a], to identify significant works [Brown and Gardner, 1985a; Gamble and O'Doherty, 1985], and for other uses (e.g., investigating the role of historical articles in research [Bricker, 1988a, 1988b]).

This study employs citation analysis as follows. To be

¹⁴It is interesting to note that of the 15 articles classified as changing prices, eight of them used the deductive method. Hence, the deductive method still played a significant role in this area. However, of the financial accounting subtopics containing at least two papers, the only other area where the deductive method was used in a majority of the papers was in the long-term liabilities area (in two of the three papers). In terms of absolute numbers, the next highest use of the deductive method after the changing prices area was in the environment and concepts area where it was used in three papers (out of 11).

counted as a journal article, the author, title, and journal minimally had to be identified in a leading author's article. For books to be counted, at a minimum, the author and the title had to be given. Papers in proceedings were counted as journal articles with the proceedings counted as a journal. Chapters in books and unpublished Ph.D. dissertations were counted as books. A work cited more than once in the same leading author's article counted as one in the tabulations (it did not matter if a work was cited more than once in the same article). Self-citations, including coauthored works of the leading author, were eliminated in determining which journals, articles, books, or authors had the greatest influence on the leading authors. In counts for influential authors, full credit was given to any coauthors of cited works.

TABLE 5
Citations of Articles and Books

	Articles		Books		Articles & Books	
	Total	Avg.	Total	Avg.	Total	Avg.
Joel Demski	168	12.9	90	6.9	258	19.8
Lawrence Revsine	104	8.0	56	4.3	160	12.3
Harold Bierman	16	1.6	10	1.0	26	2.6
A. R. Abdel-khalik	114	12.7	51	5.7	165	18.3
Robert Kaplan	140	15.6	71	7.9	211	23.4
Yuji Ijiri	26	3.3	26	3.3	52	6.5
Rene Manes	48	6.0	45	5.6	93	11.
James McKeown	60	7.5	28	3.5	88	11.0
Robert Ashton	158	22.6	34	4.9	192	27.4
William Beaver	101	14.4	50	7.1	151	21.6
Ronald Copeland	50	7.1	34	4.9	84	12.0
Edward Deakin	49	7.0	7	1.0	56	8.0
Don DeCoster	39	5.6	79	11.3	118	16.9
Robert Jensen	60	8.6	34	4.9	94	13.4
John Livingstone	37	5.3	38	5.4	75	10.7
Enrico Petri	17	2.4	13	1.9	30	4.3
Roman Weil	29	4.1	14	2.0	43	6.1
Jerry Weygandt	49	7.0	22	3.1	71	10.1
Robert Swieringa	44	7.3	19	3.2	63	10.5
Totals	1,309	8.5	721	4.7	2,030	13.2

As an overview, Table 5 shows the number of citations of articles and books made by each leading author individually and collectively as a group.¹⁵ The overall averages showed that there was a dramatic change in the use of references in the

¹⁵The totals in Table 5 were not adjusted for double counting the citations in the five coauthored articles by the leading authors. However, the other citation results reported in Tables 6-11 were adjusted for double counting.

period 1966-1985 compared with the previous periods. The average number of citations for both books and articles (i.e., total citations divided by total articles) of 13.2 far exceeded the averages of 3.4 for 1946-1965 and of 3.2 for 1926-1945. Similarly, the average for article citations grew to 8.5 in 1966-1985, compared with only 1.4 in 1946-1965 and 1.2 in 1926-1945. The average for book citations more than doubled to 4.7 in the 1966-1985 period, compared with an average of 2.0 in each of the earlier periods.

Dramatic differences were apparent at the individual author level as well (see Table 5). During 1966-1985, all but one leading author averaged at least four citations per article and 14 of the 19 averaged at least ten.¹⁶ In contrast, only seven of the 22 leading authors during 1946-1965 averaged at least four citations, while no leading author averaged at least ten. During 1926-1945, there were only three leading authors out of 19 who averaged at least four citations per article and only two who averaged at least ten.

The practice of utilizing several references in articles became widespread by the leading authors in 1966-1985. As noted by Fleming et al. [1990, 1991], the leading authors of 1926-1945 had a practical orientation which decreased somewhat during the 1946-1965 period. This change in orientation toward an academic one no doubt accounted for some of the change in the use of references. However, given that 20 of the 22 leading authors during 1946-1965 had earned a Ph.D., it is difficult to attribute the dramatic increase in references during 1966-1985 to the fact that all of the leading authors had a Ph.D. (discussed subsequently). Rather, at least part of the change is due more plausibly to the expanded use of research tools and articles and books from other disciplines, as is documented below.

¹⁶The one exception to an average of at least four citations per article is Bierman. Interestingly, he was the only leading author during 1966-1985 who was also a leading author during 1946-1965. Bierman published articles in *The Accounting Review* during the second half of the 1946-1965 period (1956-1965) and during most of the first half of the 1966-1985 period (1966-1974). While there was somewhat of a shift in his research methods from primarily the deductive method (used in eight of his ten articles) during the earlier period to other methods during the later period (other methods used in five of his ten articles), his style of writing did not change appreciably over the two periods. He tended to analyze problems using straightforward frameworks such as present value analysis and basic valuation models. Hence, his rate of 2.6 citations per article in the later period was not much higher than that of the 1946-1965 period when he averaged 2.1 citations per article.

Journals: Table 6 lists by name those journals cited three or more times by the leading authors. Perhaps the most striking feature of Table 6 is its length, with 54 journals identified by name. By comparison, the lists for the earlier time periods were much shorter; there were 13 journals cited three or more times by the leading authors during 1946-1965 and 15 such journals during 1926-1945.

TABLE 6
Most-Cited Journals

(A)=considered an accounting journal

Name of Journal	Times Cited
Accounting Review (A)	336
Journal of Accounting Research (A)	199
Journal of Accountancy (A)	59
Journal of Business	59
Journal of Finance	46
American Economic Review	25
Harvard Business Review	25
Organizational Behavior & Human Performance	24
Econometrica	23
Management Accounting (A)	21
Management Science	21
Bell Journal of Economics & Management Science	18
Psychological Bulletin	18
Journal of the American Statistical Association	17
Journal of Accounting & Economics (A)	15
Financial Analysts Journal	12
Journal of Political Economy	12
Journal of Applied Psychology	10
Journal of Financial Economics	9
Quarterly Journal of Economics	9
Accounting, Organizations and Society (A)	7
Financial Executive	7
Administrative Science Quarterly	6
Behavioral Science	6
Berkeley Symposium on the Foundations of Financial Accounting (A)	6
Journal of Personality and Social Psychology	6
CPA Journal (A)	5
International Economics Review	5
Journal of Experimental Psychology	5
Operations Research	5
Psychological Review	5
Review of Economics & Statistics	5
Symposium on Auditing Research (A)	5
Wall Street Journal	5
American Political Science Review	4
American Psychologist	4
Barrons	4
Industrial Engineering	4
Industrial Management Review	4
Journal of Economic Theory	4
Journal of Financial & Quantitative Analysis	4
Journal of the Royal Statistical Society	4

TABLE 6 (continued)

Name of Journal	Times Cited
National Tax Journal (A)	4
Biometrics	3
Business History Journal	3
Cognition	3
Daedalus	3
Economica	3
Fortune	3
International Journal of Accounting Education and Research (A)	3
Journal of Econometrics	3
Journal of Law and Economics	3
Review of Economic Studies	3
Social Science Quarterly	3
30 journals (tie)	2
76 journals (tie)	1

Another interesting feature of Table 6 is that only 11 of the 54 journals (21 percent) are accounting journals. Similarly, only five of the most-cited 15 journals (33 percent) have an accounting emphasis. The remaining ten journals come from the fields of general business, finance, economics, management, psychology, and statistics. In contrast, nine of the 13 most-cited journals (69 percent) during 1946-1965 had an accounting orientation. Hence, 1966-1985 can be characterized as a period in which the leading authors were significantly influenced by other disciplines.¹⁷

The results portrayed in Table 6 also differ from those of the 1926-1945 period. While only three of the most-cited 15 journals (20 percent) during that early period were accounting journals (not many accounting journals existed at that time), five of the most frequently cited were legal journals, such as the *Columbia Law Review* and the *Harvard Law Review*. The legal journal citations essentially disappeared during the 1946-1965 period. As previously noted, business and other social science disciplines became influential during 1966-1985.

With respect to individual journals, *The Accounting Review* was the most-cited journal, finishing well ahead of the *Journal of Accounting Research*. However, part of this difference is attributable to the fact that the *Journal of Accounting Research*

¹⁷Citations to accounting journals accounted for 59.7% of the total number of citations for journals listed by name in Table 6. During 1946-1965, accounting journals accounted for 87.8% of the citations for journals cited three or more times. Hence, based on number of citations of journals, the increase in influence of other disciplines on the leading authors during 1966-1985 compared with 1946-1965 is also evident.

did not start publication until 1963 and, therefore, had fewer articles which could have been referenced compared with *The Accounting Review*. Similarly, the *Journal of Accounting & Economics* ranked only 15th on this list, having started publication in 1979.

Somewhat surprisingly, the *Journal of Accountancy* tied as the third most-cited journal, along with the *Journal of Business*. However, its diminishing influence among the leading authors was evident over the first 60 years of *The Accounting Review*. During 1926-1945, the *Journal of Accountancy* was cited 35 times compared with 32 for *The Accounting Review*, a ratio of $35/32 = 1.09$ (partly biased toward the *Journal of Accountancy* since *The Accounting Review* started in 1926). During 1946-1965, the comparable ratio was $38/107 (.36)$, while the ratio for 1966-1985 was $59/336 (.17)$. This downward trend is consistent with the changing orientation of the leading authors from practical to academic. Moreover, the only other journals with a practical orientation in the top 15 journals listed in Table 6 are *Management Accounting* and, to some extent, the *Harvard Business Review*. Hence, the leading authors of 1966-1985 were influenced to a large degree by academic journals from other disciplines.

Authors: Table 7 shows the most-cited authors of journal articles. Beaver, a leading author himself, is the most-cited author. His citation record clearly is an outlier and exceptional. The leading authors cited 14 of his articles, outdistancing all other authors. His most-cited article, "Predictive Ability as a Criterion for the Evaluation of Accounting Data" [Beaver et al., 1968], was cited six times.

The second most-cited author was Ball, tied with Dopuch. The leading authors cited seven of his articles, with the most-cited article, "An Empirical Evaluation of Accounting Income Numbers" [Ball and Brown, 1968], cited nine times. No other article was cited nine or more times by the leading authors.

Dopuch, long-time editor of the *Journal of Accounting Research*, was tied with Ball as the second most-cited author. The leading authors cited 11 of his works, the second most number of works cited after Beaver. Two of Dopuch's articles were cited four times each by the leading authors.

Table 7 also shows that five of the 19 listed authors are included in this study as leading authors, two (including Bierman) were leading authors from 1946-1965, two are finance professors (Fama and Roll), and one a psychology

TABLE 7
Most-Cited Authors of Articles

Name of Author	Times Cited	Articles Cited
William Beaver ^{a*}	34	14
Raymond Ball	21	7
Nicholas Dopuch	21	11
Eugene Fama	20	7
Yuji Ijiri ^{a*}	17	8
David Green, Jr.	16	8
Phillip Brown	15	4
Joel Demski ^a	15	10
Nicholas Gonedes	15	9
Robert Kaplan ^a	14	10
Paul Slovic	13	6
Richard Roll	12	6
George Sorter	12	4
Thomas Dyckman	11	8
Gerald Feltham	11	4
Harold Bierman ^{a,b}	10	10
Sidney Davidson ^{b*}	10	8
David Drake	10	4
Robert Libby	10	6
7 authors	9	—
4 authors	8	—
9 authors	7	—
12 authors	6	—
22 authors	5	—
28 authors	4	—
43 authors	3	—
134 authors	2	—
578 authors	1	—

^aa leading author during 1966-1985

^ba leading author during 1946-1965

*member of the Accounting Hall of Fame

professor (Slovic). Three are members of the Accounting Hall of Fame. Most remarkably, however, is that of the 19 individuals listed, 15 of them (except for Ijiri, Slovic, Dyckman, and Feltham) either earned their doctorates or were on the faculty at the University of Chicago.¹⁸

Table 8 lists the nine articles cited five or more times. Feltham's "The Value of Information," published in *The Accounting Review*, was cited eight times (second to Ball and Brown), while Fama's "Efficient Capital Markets: A Review of Empirical Work," published in the *Journal of Finance*, was cited seven times. Hence, unlike the earlier periods when three was

¹⁸This shows that the influence of particular universities on the accounting literature may be even greater than suggested by Lee [1997] in his examination of the impact of 20 elite universities on the editorial boards of six journals.

the most times an article was cited by the leading authors, specific articles seemed to be particularly influential during 1966-1985.

TABLE 8
Most-Cited Articles

<u>Name of Author(s)</u>	<u>Title of Article</u> <u>(Journal where Published; Date Published; Times Cited)</u>
R. Ball and P. Brown	"An Empirical Evaluation of Accounting Income Numbers" (<i>Journal of Accounting Research</i> ; Autumn 1968; 9)
G. Feltham	"The Value of Information" (<i>The Accounting Review</i> ; October 1968; 8)
E. Fama	"Efficient Capital Markets: A Review of Theory and Empirical Work" (<i>Journal of Finance</i> ; May 1970; 7)
W. Beaver, J. Kennelly, and W. Voss	"Predictive Ability as a Criterion for the Evaluation of Accounting Data" (<i>The Accounting Review</i> ; October 1968; 6)
J. Horrigan	"The Determination of Long-term Credit Standing with Financial Ratios" (<i>Journal of Accounting Research</i> ; Supplement 1966; 6)
G. Sorter	"An 'Events' Approach to Basic Accounting Theory" (<i>The Accounting Review</i> ; January 1969; 6)
N. Churchill	"Linear Algebra and Cost Allocations: Some Examples" (<i>The Accounting Review</i> ; October 1964; 5)
D. Green, Jr. and J. Segall	"The Predictive Power of First Quarter Earnings Report: A Replication" (<i>Journal of Accounting Research</i> ; Supplement 1966; 5)
C. Griffin and T. Williams	"Matrix Theory and Cost Allocation" (<i>The Accounting Review</i> ; July 1964; 5)

Overall, five of the top nine cited articles were published in *The Accounting Review*, three in the *Journal of Accounting Research*, and one in the *Journal of Finance*. In addition, based on a review of these articles, five were related to financial accounting issues, three to managerial accounting issues, and one (Beaver et al.) to research methods. All of the articles were published between July 1964 and May 1970, early enough to be cited frequently by the leading authors of 1966-1985. Two of the articles (those by Ball and Brown and Sorter) also appeared on a list of most-cited articles based on an analysis of *The Accounting Review* between 1976-1982 [Brown and Gardner, 1985a, p. 101].

Table 9 shows the most-cited authors of books. Ijiri heads the list. Six of his books were cited by the leading authors with his *The Foundations of Accounting Measurement* cited six times. Bell and Edwards tied for the second most citations. All 14 of their citations were for their coauthored classic, *The Theory and Measurement of Business Income*. This book was cited most frequently by the leading authors. Paton had eight different books cited, more than any other author.

TABLE 9
Most-Cited Authors of Books

<u>Name of Author</u>	<u>Times Cited</u>	<u>Books Cited</u>
Yuji Ijiri ^a	16	6
Phillip Bell	14	1
Edgar Edwards	14	1
William Paton ^c	12	8
Maurice Moonitz*	10	4
Sidney Siegal	10	1
Gordon Shillinglaw	8	3
Robert Anthony*	6	6
Charles Horngren ^b *	6	1
J. Johnston	6	1
R. Radner	6	2
Robert Sprouse*	6	3
Andrew Stedry	6	3
Raymond Chambers*	5	1
Robert Jaedicke ^b	5	3
A.C. Littleton ^{b,c}	5	3
Robert Mautz ^b *	5	4
David Solomons*	5	3
V.H. Vroom	5	4
Glenn Welsch	5	3
14 authors	4	—
33 authors	3	—
80 authors	2	—
449 authors	1	—

^aa leading author during 1966-1985

^ba leading author during 1946-1966

^ca leading author during 1926-1945

*member of the Accounting Hall of Fame

As in the previous periods, the individuals in Tables 7 and 9 tended to be different scholars, the one exception during the 1966-1985 period being Ijiri. Of the individuals listed in Table 9, only Ijiri was a leading author during 1966-1985, four were leading authors during 1946-1965 (Horngren, Jaedicke, Littleton, and Mautz), and two were leading authors during 1926-1945 (Paton and Littleton). Ten of the 20 authors (50 percent) listed in Table 9 have been inducted into the Accounting

Hall of Fame.¹⁹ This was a higher percentage than for 1926-1945 (28 percent) or 1946-1965 (33 percent).²⁰

Table 10 is a compilation of the 12 books cited four or more times by the leading authors.²¹ Reflecting the changing research environment, the second most-cited book, after Edwards and Bell's work, is *Nonparametric Statistics for the Behavioral Sciences* by Siegal (cited ten times). In addition, two

TABLE 10
Most-Cited Books

<u>Name of Author(s)</u>	<u>Title of Book (times cited)</u>
E. Edwards and P. Bell	<i>The Theory and Measurement of Business Income</i> (14)
S. Siegal	<i>Nonparametric Statistics for the Behavioral Sciences</i> (10)
C. Horngren	<i>Cost Accounting: A Managerial Emphasis</i> (6)
Y. Ijiri	<i>The Foundations of Accounting Measurement</i> (6)
J. Johnston	<i>Econometric Methods</i> (6)
R. Chambers	<i>Accounting, Evaluation and Economic Behavior</i> (5)
G. Shillinglaw	<i>Cost Accounting: Analysis and Control</i> (5)
E. Hendriksen	<i>Accounting Theory</i> (4)
J. Hicks	<i>Value and Capital</i> (4)
M. Moonitz	<i>The Basic Postulates of Accounting</i> (4)
M. Moonitz and R. Sprouse	<i>A Tentative Set of Broad Accounting Principles for Business Enterprises</i> (4)
L. Savage	<i>The Foundations of Statistics</i> (4)

¹⁹Five of the remaining ten do not appear to be accountants (Edwards, Siegal, Johnston, Radner, and Vroom).

²⁰As will be seen, there is a stronger relationship between book citations and Accounting Hall of Fame membership than between combined book and article citations (Table 11) or article citations (Table 7) and Accounting Hall of Fame membership. During the previous periods, the combined book and article citations had the strongest relationship with the Accounting Hall of Fame. As noted by Fleming et al. [1991], this implies that books (and not just articles as is sometimes done) should also be taken into account in citation studies which try to determine influential authors, schools, doctoral programs, etc. Of course, other criteria besides contributions to the accounting literature are involved in selecting inductees to the Accounting Hall of Fame. These include professional and public service [Burns, 1975].

²¹Different editions of books with the same title counted as the same book.

other statistically oriented works are included in the list (*Econometric Methods* by Johnston and *The Foundations of Statistics* by Savage). Otherwise, seven of the 12 books relate to financial accounting, of which two were written by economists (*The Theory and Measurement of Business Income* by Edwards and Bell and *Value and Capital* by Hicks). Two are cost accounting textbooks (Hornngren and Shillinglaw).

TABLE 11
Most-Cited Authors of Articles and Books

<u>Name of Author</u>	<u>Times Cited</u>
William Beaver ^a *	35
Yuji Ijiri ^a *	33
Nicholas Dopuch	23
Eugene Fama	22
Raymond Ball	21
Joel Demski ^a	17
Robert Kaplan ^a	17
Phillip Brown	17
David Green, Jr.	16
Nicholas Gonedes	15
Phillip Bell	14
Thomas Dyckman	14
Edgar Edwards	14
Gerald Feltham	14
George Sorter	14
Sidney Davidson ^b *	13
Maurice Moonitz*	13
Richard Roll	13
Paul Slovic	13
Harold Bierman ^{a,b}	12
Robert Libby	12
William Paton ^c *	12

^aa leading author during 1966-1985

^ba leading author during 1946-1965

^ca leading author during 1926-1945

*member of the Accounting Hall of Fame

Table 11 shows the most-cited authors of both articles and books combined. Not surprisingly, since article citations were considerably more frequent than book citations during the 1966-1985 period, this list is dominated by authors of articles. In fact, all but one (Drake) of the individuals named in Table 7 as the most-cited authors of articles are also included in Table 11. By contrast, only five individuals named in Table 9 as the most-cited authors of books are also included in Table 11. Five of the authors listed in Table 11 were leading authors during 1966-1985, two during 1946-1985, and one for 1926-1945. Five

of the authors have been inducted into the Accounting Hall of Fame.²²

Remarkably, Moonitz, Paton, and Sorter also appeared on the comparable list for 1946-1965. In addition, Paton appeared on the list for 1926-1945. Paton was one of the most influential individuals on the leading authors of *The Accounting Review* for 60 years.

ARTICLE LENGTH

The average length of the articles written by the leading authors during 1966-1985 was 10.9 pages, compared to an average of 6.5 pages during 1946-1965 and 8.6 pages during 1926-1945. At the individual author level during 1966-1985, seven of the leading authors averaged less than ten pages, while the other 12 averaged more than ten. Kaplan had the highest average with 15.8 pages; Copeland had the lowest with 6.4 pages.

By contrast, between 1946-1965, all of the leading authors averaged less than ten pages, while 11 of the 19 leading authors during 1926-1945 averaged less than ten pages. Hence, the work of the leading authors during 1966-1985 tended to be longer than that of their predecessors. This is consistent with using more citations, including a literature review in some cases, and employing more quantitative/empirical methods which usually require explanation.

SOME BIOGRAPHICAL INFORMATION

Table 12 reveals the doctoral-granting institution and primary affiliation for each leading author. The doctoral-granting institution was obtained from Hasselback's *Accounting Faculty Directory* [1988] which contained the necessary information for each individual. The primary affiliations, in chronological order, are those reported with the articles published in *The Accounting Review*. As mentioned, all of the leading authors earned a Ph.D., generally from a Big-Ten or private university. Except for Livingstone's time with Coopers and Lybrand, they

²²Interestingly, during 1966-1985 there was a weaker relationship compared with the earlier periods between being cited (books and articles) by the leading authors and being inducted into the Accounting Hall of Fame. As one of the referees suggests, the cited authors from the earlier periods may have made more contributions in areas other than the accounting literature.

were all associated with a college/university, often a Big-Ten or private university, while publishing in *The Accounting Review*.²³

TABLE 12
Doctoral Programs and Primary Affiliations

Author	Ph.D. (School-Year)	Primary Affiliations
Joel Demski	U. of Chicago-1967	Columbia U.; Stanford U.
Lawrence Revsine	Northwestern U.-1968	U. of Illinois; Northwestern U.
Harold Bierman	U. of Michigan-1955	Cornell U.
A.R. Abdel-khalik	U. of Illinois-1972	U. of Illinois; Columbia U.; Duke U.; U. of Florida; U. of Alberta
Robert Kaplan	Cornell U.-1968	Carnegie-Mellon U.; U. of Chicago; Carnegie-Mellon U.; Harvard U.
Yuji Ijiri	Carnegie Mellon U.-1963	Stanford U.; Carnegie Mellon U.
Rene Manes	Purdue U.-1968	Purdue U.; U. of Illinois
James McKeown	Michigan State U.-1969	U. of Illinois
Robert Ashton	U. of Minnesota-1973	U. of Texas at Austin; New York U.; Duke U.
William Beaver	U. of Chicago-1965	U. of Chicago; Stanford U.
Ronald Copeland	Michigan State U.-1966	Penn State U.; U. of South Carolina; Northeastern U.
Edward Deakin	U. of Illinois-1972	U. of Texas at Austin
Don DeCoster	U. of Texas at Austin-1961	U. of Washington
Robert Jensen	Stanford U.-1966	Michigan State U.; U. of Maine; Florida State U.
John Livingstone	Stanford U.-1966	Ohio State U.; Georgia Institute of Technology; Coopers and Lybrand
Enrico Petri	New York U.-1973	State U. of New York at Albany
Roman Weil	Carnegie Mellon U.-1966	U. of Chicago; Georgia Institute of Technology; U. of Chicago
Jerry Weygandt	U. of Illinois-1968	U. of Wisconsin at Madison
Robert Swieringa	U. of Illinois-1969	Stanford U.; Cornell U.

As noted by Fleming et al. [1990, 1991], eight of the 19 leading authors of 1926-1945 had not earned a Ph.D. Five of

²³The Big Ten is an athletic conference comprised generally of large universities in the mid-western U. S. The Big Ten includes: Ohio State University, Michigan State University, University of Michigan, University of Wisconsin, University of Minnesota, University of Iowa, University of Illinois, Northwestern University, Indiana University, Purdue University, and (a recent addition of an 11th school) Pennsylvania State University. Interestingly, the University of Chicago was a member of the Big Ten when it had a football team. Also, all but two leading authors (Manes and Petri) earned their Ph.D.s at one of the elite universities identified by Lee [1997].

them had nonacademic positions (and four others held positions outside of academia) when published in *The Accounting Review*. During 1946-1965, all but two had earned Ph.D.'s and four of the 22 had nonacademic positions. By the period 1966-1985, the leading authors of *The Accounting Review* had evolved into an almost exclusively Ph.D./academic-only group. Perhaps, only such individuals have the time, training, and/or inclination to be familiar with the literature (as reflected in the growth of citations) and the frequently employed quantitative/empirical research methods (as documented earlier).

OTHER CHANGES

The percentage of editors who were also leading authors decreased in the succeeding 20-year periods. During 1926-1945, all three editors (Paton, Kohler, and Littleton) were also leading authors. During 1946-1965, only Littleton and Mautz of the six editors were also leading authors. By the 1966-1985 period, only DeCoster of the seven editors was a leading author.

The occurrence of coauthorship also changed over time. Of the 172 articles written by the leading authors during 1926-1945, only four articles (2.3 percent) were coauthored. In the 1946-1965 period, 16 of the 186 articles (7.5 percent) written by the leading authors were coauthored. However, a dramatic change occurred during 1966-1985 as a majority of the articles by the leading authors were coauthored (80 of the 149 articles, 53.7 percent).²⁴

More generally, and not just in the work of the leading authors, additional changes occurred in *The Accounting Review*, such as the practice in 1975 of listing references at the back of articles rather than in footnotes, perhaps reflecting their increased importance and number. In 1977, abstracts began to be included with the published articles, a change Flesher [1991, p. 169] noted to be a consequence of a study by Abdel-khalik [1976]. Abdel-khalik found that practitioners responding to a survey, apparently concerned about the readability of *The Accounting Review*, desired to have abstracts published with the articles.²⁵

²⁴These counts were adjusted for the articles coauthored by the leading authors.

²⁵Another intriguing suggestion by Abdel-khalik [1976, p. 616] to increase the readability of *The Accounting Review* was not implemented. This suggestion was to include the description of the research technique in an appendix rather than in the body of the article.

Another notable change began in 1966 when an editorial board was added to the article review process. This change was made during Trumbull's term as editor; Trumbull had been making the editorial decisions himself [Flesher, 1991, p. 167].²⁶ Interestingly, the acceptance rate declined from about 40 percent in 1967, to 24 percent in 1969, to 20 percent in 1972, and to 13 percent from 1975-1977 [Flesher, 1991, pp. 167-168]. During this period, the readability of *The Accounting Review* came under question although a study by Caplan and Griffin did not find "... any widespread dissatisfaction with the publication" [quoted by Flesher, 1991, p. 168]. Nevertheless, the very undertaking of this study was indicative of the changes occurring in *The Accounting Review*.

THE CHANGING NATURE OF THE WORK OF THE LEADING AUTHORS OF *THE ACCOUNTING REVIEW*: A SYNTHESIS

This study examines characteristics of the work of the leading authors of *The Accounting Review* during 1966-1985. The results are directly comparable to those for the 1926-1945 and 1946-1965 periods reported by Fleming et al. [1990, 1991]. In short, the work of the leading authors of *The Accounting Review* has changed dramatically over the years. While financial accounting topics continued to be popular among the leading authors to about the same extent as in 1946-1965, there was growing interest in managerial and, to a lesser extent, auditing issues. Articles concerning research methods and, though small in number, information systems appeared for the first time during 1966-1985. Education articles, which hit their pinnacle during 1946-1965, experienced a decline in interest among the leading authors and were phased out of *The Accounting Review* in the 1980s.

The big change was in research methods. Modeling and empirical methods became prominent during 1966-1985, with analytical modeling and general empirical methods leading the way. Although used to a surprising extent, deductive-type methods declined in popularity, especially in the second half of the 1966-1985 period. Among the more popular topics, only in the education area, which was in decline among the leading au-

²⁶Actually, this was not the first time that *The Accounting Review* had an editorial board; Littleton was technically a chair of a three-person editorial board during his term as editor (1944-1947).

thors, were deductive methods used a majority of the time. To a large extent, the world of accounting research for the leading authors had changed. One major exception to the changing world, however, was the continued interest among the leading authors in the financial accounting issues of their time.

Other changes accompanied the innovation in research methodology. The leading authors referenced about four times as many sources than in the earlier periods. While *The Accounting Review*, the *Journal of Accounting Research*, and the *Journal of Accountancy* were the most-cited journals, a host of journals from other disciplines including business, finance, economics, management, and psychology were also referenced. The use of journal articles greatly expanded, with the most influential authors cited by the leading authors being former doctoral students or faculty at the University of Chicago, including Beaver, the most-cited article author, and Ball and Brown, authors of the most-cited article, "An Empirical Evaluation of Accounting Income Numbers" [1968].

Books were also cited more frequently during 1966-1985 than in the previous periods. Like journals, the books often came from cognate disciplines, including economics and statistics. Edwards and Bell's classic, *The Theory and Measurement of Business Income* [1961], was the most-cited book, while Ijiri was the most-cited book author.

As a group, the leading authors had evolved into an almost exclusively Ph.D./academic-only set of contributors. All of the leading authors had earned a Ph.D., were accounting professors, and were affiliated with a university while publishing in *The Accounting Review*, excepting Livingstone's time with Coopers and Lybrand.²⁷ During 1946-1965, four of the leading authors had nonacademic positions, while during 1926-1945, five of the leading authors had nonacademic positions (four others held both academic and nonacademic positions). The leading authors of 1966-1985 were academics, not practitioners.

The leading authors tended to write longer articles than had their predecessors. Other changes included the higher incidence of coauthorship and the institution of an editorial process involving a review board. At the same time, the acceptance rate for publication in *The Accounting Review* plummeted from

²⁷This is contrary to Chatfield's [1975, p. 6] claim, at least with respect to the leading authors, that more articles by "non-accountants" were published in *The Accounting Review* using "... ideas or methods from their own discipline."

40 percent to 13 percent in a ten-year period. Questions began to be raised regarding the readability of the journal. To summarize, *The Accounting Review* during 1966-1985 had become a journal with demanding acceptance standards whose leading authors were highly educated, accounting academics who, to a large degree, brought methods and tools from other disciplines to bear upon accounting issues.

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