The Accounting Historians Journal
Volume 27, Number 2
December 2000

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The Accounting Historians Journal

December 2000
Volume 27, Number 2

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The Accounting Historians Journal is a refereed, scholarly journal published semiannually in June and December, printed by Craftsman Printing, Inc., 120 Citation Court, Birmingham, AL 35209. ISSN 0148-4182. AHJ does not assume responsibility for statements of fact or opinion made by its contributors.
ACCOUNTING HISTORIANS JOURNAL

Semiannual Publication of
The Academy of Accounting Historians

Volume 27, Number 2 December 2000

CONTENTS

Main Articles

A Social Network Analysis of the Founders of Institutionalized Public Accountancy
—Thomas A. Lee ..............................................................1

Accountability and Rhetoric during a Crisis: Walt Disney's 1940 Letter to Stockholders
—Joel H. Amernic and Russell J. Craig .........................49

Building the Canadian Chartered Accountancy Profession: A Biography of George Edwards, FCA, CBE, LLD, 1861-1947
—Alan J. Richardson ......................................................87

Anson O. Kittredge: Early Accounting Pioneer
—George C. Romeo and Larissa S. Kyj ..........................117

The Role of Depreciation and the Investment Tax Credit in Tax Policy and their Influence on Financial Reporting during the 20th Century
—Beth B. Kern ............................................................145

https://egrove.olemiss.edu/aah_journal/vol27/iss2/13
Biblical Basis of Forty-Year Goodwill Amortization
—Hugo Nurnberg .................................................. 165

Publishing Patterns in Specialist Accounting History
Journals in the English Language, 1996-1999
—Garry D. Carnegie and Brad N. Potter ...................... 177

Review of Books
A Retrospective Glance
—Cheryl S. McWatters ............................................. 199
ACCOUNTING HISTORIANS JOURNAL

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Authors may find the following guidelines helpful.

1. Authors should provide a clear specification of the research issue or problem addressed and the motivation for the study.

2. Authors should describe the method employed in the research, indicating the extent and manner in which they intend to employ the methodology. Manuscripts are encouraged that draw on a variety of conceptual frameworks and techniques, including those used in other social sciences.

3. Manuscripts that rely on primary sources should contain a statement specifying the original materials or data collected or analyzed and the rationale used in selection of those source materials. Authors should provide the reader information as to how these source materials may be accessed.

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A SOCIAL NETWORK ANALYSIS OF THE FOUNDERS OF INSTITUTIONALIZED PUBLIC ACCOUNTANCY

Abstract: This paper examines the social relations of the founders of the first institutions of modern public accountancy in Scotland. The study uses archival data to construct social networks prior to 1854. Individual founders in the networks are identified as potentially significant sources of influence in the foundation events.

The paper reports the social network analysis in several parts. First, relations between the founders of The Institute of Accountants in Edinburgh (IAE), renamed The Society of Accountants in Edinburgh (SAE), are networked. Second, a similar analysis is made of the foundation of The Institute of Accountants and Actuaries in Glasgow (IAAG). Third, social links between individual founders of the IAE/SAE and IAAG are identified.

The research results are generally consistent with prior studies but reveal significant matters not identified by other researchers. The social network analysis of the IAE/SAE founders confirms the existence of a cohesive and elite community and the presence of an elite within an elite. There is evidence of strong links to lawyers and landowners, as well as significant links to the insurance industry.

Acknowledgments: The author acknowledges the financial support of the Culverhouse Endowment (University of Alabama) and the Scottish Committee on Accounting History (The Institute of Chartered Accountants of Scotland); data collection by Melanie Thorius, Suzanne Hepburn, and William Jackson; advice from Professor Stephen Walker (University of Edinburgh), Dr. John Bolland (Institute of Social Science Research, University of Alabama), and Professor Steven Borgatti (Boston College); archival assistance at the Scottish Record Office, the Special Collections Department (University of Edinburgh), the National Library of Scotland, the Edinburgh Central Library, and the Mitchell Library (Glasgow); and Dorothy Hogg (ICAS librarian) and Isobel Webber (ICAS Research Department). Two anonymous reviewers gave helpful comments. To these individuals and organizations, participants at the 1999 annual conference of the Academy of Accounting Historians, and students and staff of the Department of Accountancy of the University of Dundee, the author expresses thanks with the traditional absolution.

Submitted December 1999
Revised April 2000
Accepted May 2000
The IAAG network analysis demonstrates the Glasgow community to be elite but more cohesive than its Edinburgh counterpart. The IAAG founders had more significant links to merchants and farmers than to lawyers and were a social group distinctly different from that of the IAE/SAE. Nevertheless, relations existed between individual founders in the two communities that have the potential to explain why the foundations took place at about the same point in time.

The study involves the first use of social network analysis in an accounting history project. This methodology has been used extensively over several decades in sociology and social history. The major long-term contribution of the paper therefore can be argued to be the introduction of social network analysis to accounting historians.

INTRODUCTION

The purpose of this paper is to examine various social relations between individuals directly or indirectly involved in the founding of the IAE/SAE in 1853-1854 and the IAAG in 1853-1855. Much has been written about the Scottish founders and the foundation events [e.g.; Brown, 1905; Stewart, 1977; Macdonald, 1984; Briston and Kedslie, 1986; Walker, 1988b, 1995; Kedslie, 1990a, b; Shackleton, 1995; Lee, 1996]. However, little has been reported about the personal and business relations that existed between the founders. Such relations are signals of potential influence within the foundation communities and offer means of identifying potentially major players in the foundation events.

The paper reports detailed archival searches and analyses of individual relations that indicate well-established social structures of potential communication and influence within the IAE/SAE and IAAG foundations. By means of these structures, it is possible to identify those Edinburgh and Glasgow accountants with the greatest access to their colleagues in their foundation communities and, therefore, with the most potential to influence foundation events. Although personal attributes of the founding accountants are reported, they are used only to provide an interpretable context for analysis and a means of statistically validating the more fundamental aspects of the social structures that were the foundation communities.

The study reports that, respectively, there were 75 Edinburgh men and 51 Glasgow men directly or indirectly involved in the IAE/SAE and IAAG foundations. Each group constitutes an identifiable community based on individual relations or ties that evolved over a number of decades in school, at university, in training and practice, and as a function of the geographic proximity of
business and domestic addresses. In addition, there were connections between the founders through family, marriage, and friendship ties. In combination, these relations form social networks for further analysis of potential influence by individual founders.

The independent variables (personal attributes) that best explain variations in the degree of potential influence of the IAE/SAE founders are practice type; land, legal, and insurance connections; and geographic origins. More specifically, the most-connected members of the Edinburgh founding group were those founders born and raised in Edinburgh with the most links to landowners, lawyers, and insurance companies. Other attributes, such as paternal occupation, age, professional experience, and marital status, did not explain variations in relations in the foundation network. The most significant attribute to explain network influence in the IAE/SAE community is insurance connections.

Most of the IAE/SAE findings are consistent with prior research of a broader nature. Studies such as Brown [1905], Stewart [1977], Macdonald [1984], Walker [1988b], Kedslie [1990a, b], and Walker [1995] emphasized the strong relations in Edinburgh in 1853 between accountants and lawyers; lawyers and landowners; and accountants, lawyers, and insurance companies. Most researchers in this area believe London-based political and economic threats to court-related work to be the main reason for the institutionalization of Edinburgh accountants in 1853 and 1854. This professional service depended on close relations between accountants and lawyers and focused on property ownership (including land). In addition, Edinburgh in the first half of the 19th century was a major location for insurance companies. With the protection of property owners as their major objective, lawyers and accountants typically managed these companies. What is surprising in this study is the dominance of insurance connections over other variables available to explain the social structure of the IAE/SAE foundation community. Also of interest are a number of founders who were well connected within the Edinburgh foundation community, as well as to landowners, lawyers, and insurance companies apparently uninvolved in the foundation events.

Total network differences for the IAAG founders are best explained by a combination of parental occupation, legal connections, and marital status. Differences within subgroups of the Glasgow community are related to factors such as age, practice type and experience, and marital status. Overall, the most persis-
tent explanation of differences in IAAG ties is marital status. Explanations of differences in the IAE/SAE community generally do not apply to the IAAG group. On the other hand, a comparison of the personal attributes of the IAE/SAE and IAAG founders reveals differences noted by previous researchers [e.g.; Stewart, 1977; Macdonald, 1984]. In particular, the Glasgow founders were socially more connected to commerce than to law.

A social network analysis of IAE/SAE and IAAG founders who were socially connected by 1853 reveals potential for the separate foundation debates, decisions, and actions to have been known within each community. For this reason, it is unsurprising that the IAE/SAE and IAAG foundations took place at approximately the same time.

The remainder of the paper is structured as follows. First, a brief review is made of previous research to provide theoretical bases for using archival data to look for explanations of differences in the social relations of both the IAE/SAE and IAAG communities. The main expectations of the study are stated, prior to explanations of the archival sources and the research methodology applied to the databases constructed from the archives. Data collection procedures are outlined. The founders are designated in terms of defined subgroups applicable to each of the IAE/SAE and IAAG foundations, and the personal characteristics of the two groups of founders are explained and compared. The social network analyses are described, first in relation to IAE/SAE founders, then to IAAG founders, and finally with respect to linked founders from the two communities. The data analyses incorporate linear regression models in which the degree of influence of the founders is the dependent variable and personal attributes are the independent variables. These models are used to explain individual network differences. The implications of the main findings are discussed, as are statements of study limitations and a need for further research.

PRIOR RESEARCH OF THE IAE/SAE AND IAAG FOUNDATIONS

Brown [1905] is the earliest commentator on the IAE/SAE and IAAG foundations. He identified the main foundation events and provided brief biographical details of the IAE/SAE and IAAG founders and other early public accountants in Scotland. However, he did not attempt explanatory analyses of the foundations. Brown's brief biographical notes on early accountants were the basis for more detailed biographical research by Stewart
[1977] of all Scottish chartered accountants between 1853 and 1879. Stewart’s biographies were used in Macdonald [1984] to describe and contrast the IAE/SAE and IAAG foundations.

Stewart [1977] made several claims about the Scottish foundations in 1853. In relation to the IAE/SAE, he stated the existence in 19th century Edinburgh of strong connections between landowners and the legal profession, as well as between lawyers and accountants. He related these connections to the IAE/SAE foundation as a threat to the monopoly of court-related services by Scottish accountants. Stewart’s biographical material identified some of these connections and revealed that several of the IAE/SAE founders were legally trained. He also argued that Glasgow accountants were socially different from their Edinburgh counterparts. He cited several reasons for this conclusion (e.g., close links to merchants and stockbrokers rather than to lawyers and a general lack of association with leading Glasgow schools and its main university).

Other researchers have come to similar conclusions about the IAE/SAE and IAAG founders. Macdonald [1984], for example, examined the foundations through the theoretical lenses of collective social mobility and market control. He cited early Scottish chartered accountancy as an example of both constructs, and relied on Stewart’s [1977] biographical data to demonstrate his arguments. In particular, Macdonald described the IAE/SAE as the creation of an elite club in which the link between lawyers and accountants was crucial to its success. He also agreed with Stewart regarding the commercial and stockbroker backgrounds of the IAAG founders.

Walker [1988b] stated that Edinburgh accountants in the first half of the 19th century were classed as an adjunct to the legal profession and accepted as such by the leading professional bodies of law. Kedslie [1990a, b] contrasted the IAE/SAE and IAAG founders’ practice preferences and social origins. She reported that the Edinburgh founders had strong connections to other professions, particularly law, while the IAAG founders were linked to mercantile activity, including stockbrokers. She also argued that both communities were involved in court-related and insurance services.

Lee [1996] outlined the IAE/SAE foundation events and identified each of the founders. He classified these accountants as either active or inactive in the foundation, dependent on their attendance at known foundation meetings. From this classification, Lee identified an inner cabinet of active and inactive men,
elected to the IAE/SAE Councils of 1853 and 1854, and an outer cabinet of active founders. The Lee classification offered an initial focus on potentially influential founders. With one exception, the cabinet members were elected to SAE committees in 1854. Lee concluded that this pattern suggests the existence of an elite within an elite in the IAE/SAE. Fifty-four of the 75 Edinburgh founders did not belong to the designated cabinets.

**RESEARCH EXPECTATIONS**

Research outlined in the previous section permits several general expectations to be stated prior to the social network analyses. The archival data are quantifiable, reasonably objective, and useful for empirical testing. The study therefore offers explanations as well as descriptions of the IAE/SAE and IAAG networks.

The first expectation is that the IAE/SAE and IAAG founders were members of cohesive elite groups within their professional communities. For example, the IAE/SAE founding group did not contain 57 Edinburgh accountants publicly listed in 1853, while 99 Glasgow public accountants were not involved in the IAAG foundation in 1853. In addition, previous research on the IAE/SAE founders indicated an upper-middle-class grouping of men with landowning and/or legal or other professional origins. In relation to the IAAG founders, prior studies have suggested their strong presence in mercantile affairs, including several business leaders of Glasgow [see also Maclehose, 1886]. It is therefore expected that identifiable networks for each foundation community identify the cohesive elite nature of the IAE/SAE and IAAG groups.

A second expectation relates to the composition of the foundation communities. First, the formation of the IAE/SAE involved 22 individuals employed as insurance company managers rather than public accountants. They were introduced to the foundation at the creation of the IAE in 1853. However, ten of the group resigned from the IAE shortly before it received its royal charter as the SAE in 1854. Second, the IAAG foundation consisted initially of two groups. In 1853, 15 experienced Glasgow accountants (requisitioneers) were petitioned by 27 less-experienced accountants (requisitionists) to form a professional body. According to Kedslie [1990b], the senior accountants were primarily engaged as stockbrokers while their junior colleagues provided public accountancy services. All of these factors suggest that the IAE/SAE and IAAG foundation communities contained accountants who were not in public practice but were important
to the credibility of the foundations. It is therefore expected that these individuals were well connected within and outside the foundation communities.

The third expectation relates to founder characteristics that gave credibility to the IAE/SAE and IAAG as reputable institutions of public accountancy. In the case of the IAE/SAE, previous research suggested that social connections to landowners and lawyers were persistent and important characteristics of the founders. In the case of the IAAG, on the other hand, the equivalent connections were to leading merchants, stockbrokers, and other participants in commerce and trade rather than to lawyers and landowners. Thus, in the case of the IAE/SAE foundation, it is expected that the potential influence of individual founders is positively associated with the number of pre-1853 links they had to landowners and lawyers. In the case of IAAG founders, on the other hand, it is expected that this relation will hold true with respect to mercantile and similar links.

A fourth expectation extends the previous argument to associations with the insurance industry. Previous research demonstrated strong corporate managerial and governance links between Edinburgh accountants and insurance companies in the first half of the 19th century. Glasgow accountants, on the other hand, were typically involved in insurance agency [Kedslie, 1990a]. It is therefore expected that, in the case of the IAE/SAE foundation, the potential influence of the individual founders is positively associated with the number of pre-1853 insurance connections. In the case of IAAG founders, this relation is not expected to hold true.

The overall model prescribed above suggests that the most influential IAE/SAE and IAAG founders were significantly connected to social groups important within their respective business communities. Other models based on factors such as parental occupation, age, practice experience, and marital status are not consistent with any prior research or argument.

RESEARCH DESIGN AND METHOD

Of specific interest in this study are the social ties between IAE/SAE and IAAG founders that constitute social network structures. These ties are described by means of archival material gathered from various sources. These include census enumerator books; baptism, birth, marriage, and death certificates; school and university matriculation lists; university graduation books; postal
and trade directories; membership records of professional bodies; histories of professional, commercial, and charitable organizations; and published biographies and obituaries. Most of the data are original, but some are secondary. Where possible, secondary data were audited for accuracy by reference to original data sources.

The concept of individual ties forming a defined social network, such as the founders of the IAE/SAE or the IAAG, is a significant one for social historians. The research focus moves from individual attributes [e.g.; as in Macdonald, 1984; Kedslie, 1990a, b] to a network of ties that define potential communication, influence, and resource transfers [Rogers and Kincaid, 1981; Wasserman and Faust, 1994]. A tie between two individuals is a unit of measurement to assist in explaining human behavior within a defined community. A collection of measured ties forms a social network that empowers and constrains human action [Wasserman and Faust, 1994].

The focus of this study is the identifiable relations between individuals in the IAE/SAE and IAAG foundation communities. As Emirbayer and Goodwin [1994] argued, analyses of networks constructed from measurable ties between individuals look at overall structure rather than specific content because social systems rest on defined social relations and not on the cognition of humans. Social relations are independent of personal attributes and can be measured at individual or group levels. Emirbayer and Goodwin [1994] also argued that network analysis has the potential to identify the cohesion necessary to provide collective identity in a group or community. Thus, social network analysis is not a theory of sociology; rather, it is a paradigm or perspective on social behavior. The analysis can objectively reveal social structure without necessarily requiring subjective insights into individual beliefs, values, and normative commitments.

There is a basic principle of measurement within a defined social network. It states that the greater the number of ties associated with an individual, the greater is his/her potential to communicate, influence, or transfer resources with or to other individuals in the network [Rogers and Kincaid, 1981; Wasserman and Faust, 1994]. Ties are channels for communication or resource transmission and, once formed and identified, are analyzed to reveal those individuals in the structure with the greatest potential influence, as well as to derive measures of prestige. A social
network can be conceptualized graphically, with nodes signifying individuals and lines connecting nodes representing defined ties. Networks can be decomposed into connected blocks based on the structural equivalence of individuals.¹

The primary aim of social network analysis in the current study is to comprehend 19th century public accountancy in Scotland as a cohesive elite structure of social relations. This is in contrast to the conventional approach of categorized attributes independent of these relations.

Social network analysis has been used by sociologists and social historians since the early 1950s.² It is typically thought of as a graph-based methodology in which ties between individuals in a network are visually presented in an optimal manner that helps to identify key individuals with large numbers of directed or undirected ties signifying network activity; subgroups of individuals with common ties to one another as well as to others (i.e., cliques of defined minimum size and a requirement for at least one related pair of individuals); isolated individuals with few or no ties; individuals who act as bridges between one network and another; and subgroups (blocks) comprising individuals with structurally equivalent ties that are not necessarily linked to one another (e.g., individuals who went to the same school or university but at different times). Directional ties indicate individuals of greatest prestige in the network because of the ties directed to them. Ties can also be valued if such data are available (e.g., a dollar amount of resources).

For many years, the use of social network analysis was limited to relatively simple manual sociograms. The reason for this was the computational restriction on researchers attempting to find an optimal set of relations from even a small number of ties. However, with advances in computer processing and programming, it is now possible to calculate speedily measures that accurately describe relations in a network. The computer program used in this study is UCINET [Borgatti et al., 1992]. It produces matrices constructed from a spreadsheet that records specific ties

¹See, for example, Bearman [1993] in which the prediction of kinship in the English Civil War is not based on the traditional attributes of status and land ownership but, instead, on the structural equivalence of occupational and religious affiliations.

²Social network analysis is fully explained in Wasserman and Faust [1994]. An earlier explanatory text is Rogers and Kincaid [1981].
between individuals. Matrices are symmetrical for purposes of calculating network measures.

Many types of measure of influence are possible in social network analysis [Wasserman and Faust, 1994]. Degree centrality is the main measure used in the current study as it is relevant and simplest to comprehend. In its most fundamental form, a centrality measure describes the number of ties in the foundation network associated with each founder. The more ties there are to a founder, the more potential influence he has in the network. The degree centrality of a founder is normalized to a percentage by dividing his ties by the maximum possible number of ties in the network. This percentage measure, which describes the proportion of other founders in the network to which the specific founder is linked, is reported in this study's appendices and tables. The higher the percentage, the more central or potentially influential the founder is presumed to be in the network.

The centrality of the foundation networks is also reported in the appendices. This measure is the dispersion between the most and least-related founders in a network. Group degree centrality is a percentage datum with the numerator being the sum of the differences between the actual ties and the maximum possible ties for each founder, and the denominator being a similar measure assuming one completely dominant founder. The measure ranges from 100% (if one founder potentially dominates all others) to 0% (if all founders have identical ties and equal potential influence).

Social network analysis computes and reports network cliques. By definition in this study, a clique is a group of at least three founders with mutual links. No other founder in the network can be added to a defined clique once all mutual relations are exhausted. Mutual relations therefore define cliques, and the founders can be members of more than one clique. In fact, founders can be members of numerous cliques and thereby link subgroups in the network without the use of direct ties. The size of a clique is specified for purposes of analysis depending on the

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3Other measures of centrality are described in Wasserman and Faust [1994] and Borgatti et al. [1992]. "Closeness" measures how close an individual is to each of the other individuals in the network. "Betweenness" is a measure of how many times other individuals in the network have to go through a specific individual in order to communicate. "Eigenvector" is a measure of the total number of ways an individual can relate to all other individuals in the network. Each of these measures was computed in this study, but the results are identical to those using the simpler degree centrality and clique measures.
size of the network. In this study, clique size is set at a minimum of five founders.\(^4\)

Empirical explanations of differences between centrality measures are presented by means of multivariate models of linear regression. In each linear model, the degree centrality scores of the relevant founders define the dependent variable. Selected founder attributes (based on theoretical arguments regarding expectations) are the independent variables. The constant term is set at zero, and the robustness of the regression is tested by means of a form of bootstrapping involving 1,000 random regression calculations for each independent variable. The percentage of random regression coefficients larger (assuming a positive relation) or smaller (assuming a negative relation) than the actual coefficient is reported.

**DATA COLLECTION**

Data were gathered for 75 IAE/SAE founders listed in Appendix 1 and 51 IAAG founders listed in Appendix 2. The data are of two types. The first type concerns the ties between founders prior to the foundation events in 1853. These are structured on a career time line for each founder; i.e., beginning with school relations, followed by university ties, and completed by training and employment or partnership links. In addition, data were collected on social ties such as family, marriage, close friendships, and nonbusiness relations (e.g., in charitable organizations). Finally, business and home addresses in 1853 were identified to determine those founders living within reasonable proximity of one another. In order to qualify as proximate, individuals had to be living or working in the same or an adjacent street, a conventional approach in this type of research.

The second type of data concerns the personal attributes of the founders. These include age and practice experience by 1853; geographical origins and paternal occupation; marital status in 1853; practice type; legal, insurance, and bank connections;\(^5\) and membership in the Institute of Actuaries [Davidson, 1956] (in

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\(^4\)The minimum number is three. Five appears to be a reasonable size given the overall network of 75 individuals.

\(^5\)Insurance and banking connections are defined in terms of directorships, appointments as auditor, or management of the insurance company. Insurance agencies are not included as these were common features of public accountancy in Scotland in the 19th century and do not relate to the overall management or governance of an insurance company.

The bibliography identifies the various sources accessed to obtain data on relations and personal attributes. Baptismal, birth, marriage, and death certificates were analyzed, but certain founder names such as W. Smith and J. Watson were impossible to match with any degree of accuracy. Census enumerator books were examined. However, occasionally a founder and/or his family members were absent on the day of the count. Information about leading Edinburgh schools was available from primary and secondary sources. These schools included George Heriot's Hospital [Bedford, 1872; Gunn, 1901]; the Royal High School [Trotter, 1911]; the Edinburgh Academy [Edinburgh Academy, 1914]; and the Edinburgh Institution [Young, 1933]. No records were found for comparable Glasgow schools. University of Edinburgh [University of Edinburgh, various dates; University of Edinburgh, 1858] and University of Glasgow [Kirkpatrick, 1889; Addison, 1898, 1913] matriculation lists and graduation books were searched. So, too, were graduation books of the University of Aberdeen [Johnston, 1906] and matriculation lists of the University of St. Andrews [Anderson, 1905]. However, identifying the correct founder in school and university records (e.g., J. Mackenzie or W. Smith) was again occasionally difficult or impossible.

Postal and trade directories of Edinburgh and Glasgow were used for identifying practice firms and addresses, and business and other appointments [e.g., the New Edinburgh Almanack, various]. Membership records were examined of significant Edinburgh and Glasgow business, professional, and social organizations to which the founders and their relations and friends belonged. These include the Dialectic Society [Dickson, 1887]; the Edinburgh Academical Club [Edinburgh Academy, 1914]; Edinburgh and Glasgow City Councils [Tweed, 1883; Constable and Constable, 1932]; the Faculty of Actuaries [Davidson, 1956]; the Faculty of Advocates [Grant, 1944; Walker, 1988a]; the Glasgow Athenaeum [Lauder, 1897]; the Merchants Company of Edinburgh [Heron, 1903]; the Paul and Mackersley Club in Edinburgh [records held by ICAS]; the Royal Company of Archers [Paul, 1875; Hay, 1951]; the Royal Society of Edinburgh [Royal Society of Edinburgh, undated]; the Solicitors of the Supreme Court [Barclay, 1984]; the Society of Writers to the Signet [Society of Writers to the Signet, 1936]; and the Speculative Society.
Lee: Founders of Public Accountancy

[Watson, 1905; Guild, 1968]. Various church histories (e.g.; the Church of the Canongate [Wright, 1956], St. George's Church [MacLagan, 1876], and St. Steven's Church [Sands, 1927]) provided useful data, as did histories of leading Scottish banks [Anderson, 1910; Munro, 1928; Rait, 1930; McCulloch and Stirling, 1936; Reid, 1938; Malcolm, 1945, 1950; Munn, 1988; Saville, 1996]. Obituaries and major texts [e.g.; Douglas, 1882; Eddington and Pike, 1904; Maclehose, 1886] that include researched data relating to the founders were used as additions to original data.

THE IAE/SAE FOUNDERS

Lee [1996] has described the IAE/SAE foundation. His analysis began with an initial set of 15 men involved with the first meeting and revealed a growing number of accountants attending each subsequent meeting. The original 15 accountants were established public accounting practitioners in Edinburgh and represented nine partnerships. For purposes of the current study, the sequencing of the foundation is defined at each stage as including closely connected individuals to the known participants. This permits inclusion of partners and senior employees who did not attend specific meetings but who undoubtedly would have been aware of them. This definition has the advantage of not restricting each subset of the foundation group at each point of time to those actually attending a meeting. In Table 1, therefore, the 75 founders are identified in relation to specific stages in the IAE/SAE foundation. These are the bases for the social network analysis measures in Appendix 1.

There are a number of factors to consider in Table 1. First, with respect to the structure of the paper, the items marked ~ relate to the social network analysis in Appendix 1 and the regression models in Table 5. Second, the initial foundation group predominantly comprised public accountants. It is approximately twice the size conventionally recorded by researchers such as Kedslie [1990a]. This is due to expanding the group to include partners and significant employees of the initial invitees. Third, the initial planning group contains the most prominent Edinburgh public accountancy firms in 1853, as well as court-based accountants closely connected to the work of public accountants (e.g., the accountant and assistant accountant of the Court of Session). Fourth, the second group of participants contains 18 insurance company managers who were IAE members.
**TABLE 1**

The Foundation of the IAE/SAE

**January 17 and 22, 1853: preparatory meetings**

J.M. Baillie & W. Moncreiff; A. Borthwick & S. Raleigh (with H. Callender); J. Brown & C. Pearson (with J.A. Brown); J.J. Dickson & A. Horne; T.G. Dickson & H.G. Watson; R. Gordon; A. Jamieson & J.M. Macandrew; D. Lindsay & G.A. Esson (with G.A. Jamieson); T. Martin; K. Mackenzie & G. Todd; G. Meldrum; J.J. Ogilvy; A.W. Robertson; T. Scott; J. Maitland ** & W. Wood (with J.C. Fraser **) (a total of 29, columns 1 and 2 of Appendix 1).

**January 31, 1853: formation of IAE**


**April 8, 1853, February 1, 1854, May 29, 1854: petition for SAE royal charter**

J. M. Liddell *; P. Morison; A.M. Paterson; A.T. Niven * (four new members); J. Borthwick; R. Christie snr.; H.D. Dickie; G.L. Finlay; J. Fraser; J. Grieve; H. Ivory; J. Mackenzie; W. Smith; W.T. Thomson; and J. Watson (11 resignations from the IAE) (a royal charter petition total of 61; columns 5 and 6 of Appendix 1).

**December 29, 1854: presentation of royal warrant of incorporation to SAE Council members**

C.H. Douglas (resigned); J. Moinet *; D. Murray; and W. Myrtle ** (Lord Advocate's petitioners) (giving an initial SAE membership of 63).

<table>
<thead>
<tr>
<th>Overall Summary</th>
<th>Public Accountants</th>
<th>Insurance Managers</th>
<th>Lawyers</th>
<th>Total</th>
<th>Cumulative Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial planning</td>
<td>25</td>
<td>2</td>
<td>2</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>IAE meeting</td>
<td>19</td>
<td>18</td>
<td>2</td>
<td>39</td>
<td>68</td>
</tr>
<tr>
<td>Additions</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>4</td>
<td>72</td>
</tr>
<tr>
<td>SAE petition</td>
<td>-</td>
<td>10</td>
<td>1</td>
<td>11</td>
<td>61</td>
</tr>
<tr>
<td>SAE charter</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>64</td>
</tr>
<tr>
<td>Resignation</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>63</td>
</tr>
<tr>
<td>Gross totals</td>
<td>48</td>
<td>22</td>
<td>5</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>Net totals</td>
<td>47</td>
<td>12</td>
<td>4</td>
<td>63</td>
<td>63</td>
</tr>
</tbody>
</table>

*manager of insurance company; ** lawyer; *** bank manager; ! columns 7 and 8 of Appendix 1.

---

*Histories of the IAE/SAE formation [e.g., Lee, 1996] stated that 65 men were suggested for membership of the IAE in 1853. However, three others (J.C. Fraser, G.A. Jamieson, and D. Marshall) were connected to events at this point through their employment as senior accountants with, respectively, the firms of Maitland & Wood, Lindsay & Esson, and C.H. Douglas.*
Other movements in the IAE/SAE foundation numbers in Table 1 are relatively small and relate to either young accountants joining the IAE after its formation, resignations prior to the SAE royal-charter petition, or the Lord Advocate's recommendations. In total, 64% of the 75 founders can be classified as public accountants. Ten of the 12 resignations from the IAE/SAE were insurance managers. This means that 16 of the 61 founding SAE members were not public accountants in terms of their main professional service focus.

THE CHARACTERISTICS OF THE IAE/SAE FOUNDERS

Prior to analyzing the social network of the IAE/SAE founders, it is appropriate to examine their personal attributes that are the basis for the independent variables used in the regression analyses. Several attributes are completely identified (i.e.; birthplace, age, practice type, insurance and bank links, business and private addresses, and membership in the Institute of Actuaries). Other attributes are identified as much as the available archives permit (i.e.; father's occupation, school and university attendance, practice experience by 1853, legal links, and marital status in 1853). Thus, there are missing data in the analyses.

Three attributes (i.e.; school, university, and address) are the basis for determining ties between founders (e.g., founders in the same school or university class). They are therefore not used as independent variables in the regressions. To do so would result in specific attributes being part of both sides of the linear equation, thereby creating spurious correlation. Schooling was determined in a majority of cases. These involve the two most prestigious Edinburgh schools of the time (37 founders attended Edinburgh Academy and/or the Royal High School of Edinburgh, suggesting they were typically from upper-middle-class families) [see also Walker, 1988b]. Eighty-one percent of the founders attended the University of Edinburgh to take arts or law classes. A small number attended the Universities of Aberdeen and St. Andrews. Although many founders attended university for several years, only G.A. Jamieson received a degree (University of Aberdeen). Founders' addresses were almost totally located in Edinburgh's most prestigious residential and business area, the New Town. Seventy-two of the 75 founders had either a business or domestic address in this small area. The full range of attributes other than those used for ties is disclosed in Table 2.
TABLE 2
The IAE/SAE Founders’ Attributes by 1853*

<table>
<thead>
<tr>
<th>Father’s Occupation</th>
<th>Birth Place</th>
<th>Age</th>
<th>Practice Type</th>
<th>Practice Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Landowner</td>
<td>Edinburgh</td>
<td>56</td>
<td>20-39</td>
<td>32</td>
</tr>
<tr>
<td>and/or lawyer</td>
<td>Region</td>
<td>13</td>
<td>40-59</td>
<td>53</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
<td>31</td>
<td>60+</td>
<td>15</td>
</tr>
<tr>
<td>professions</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Merchant or other</td>
<td></td>
<td></td>
<td></td>
<td>Unknown 12</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Legal Links</th>
<th>Insurance Links</th>
<th>Bank Links</th>
<th>Institute of Actuaries</th>
<th>Marital Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>5,6,7</td>
<td>12</td>
<td>3,4,5</td>
<td>14</td>
<td>2,3</td>
</tr>
<tr>
<td>3,4</td>
<td>17</td>
<td>1,2</td>
<td>59</td>
<td>1</td>
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<tr>
<td>1,2</td>
<td>46</td>
<td>0</td>
<td>27</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*All data are expressed as percentages of the 75 founders listed in Appendix 1.

There is evidence in Table 2 of a bias to upper-middle-class background. Seventy percent of the founders had fathers who were landowners and/or lawyers (26) or other professionals (26). This is consistent with previous research [e.g., Kedslie, 1990a]. The number of links to lawyers is separately disclosed; 75% had at least one connection to a lawyer through family, marriage, or employment ties. These data exceed previous calculations. For example, Kedslie [1990a] stated 18% of the 61 SAE charter petitioners had lawyer fathers (23% in this study).

Table 2 reports the birthplace of more than two-thirds of the founders was Edinburgh or its surrounding region, suggesting a reasonably cohesive geographical group. The founders were well established and experienced in practice. The average age in 1853 was approximately 44 years, and the equivalent experience datum was approximately 16 years. The predominant practice type was public accountancy [consistent with Kedslie, 1990a, b], with a sizeable minority of 24% in insurance management [again consistent with Kedslie, 1990a, b; Macdonald, 1984]. The insurance
links are magnified by related data; i.e., 73% of the founders had at least one actuarial, directoral, or managerial link to insurance companies, and 28% were members of the London-based Institute of Actuaries by 1853. Twenty-five percent of the group had observable managerial or governance relations with banks. Most of these links took the form of executive or non-executive appointments with leading institutions. Approximately six of every ten founders were married by 1853. In total, 20% of the group died unmarried, consistent with Walker's [1988b] review of the SAE membership to 1914.

**MEASURES OF DEGREE CENTRALITY FOR THE IAE/SAE FOUNDERS**

To determine the social network of the IAE/SAE foundation community in 1853, it is necessary to identify social ties between individual founders. This is completed in five distinct stages, each approximating a period in a founder's time line. The first stage is school attendance, followed by classes at the University of Edinburgh. The third stage concerns apprenticeship, employment, and partnership associations. The fourth stage involves social relations, including family, marriage, and close friendships. The last covers geographic proximity in terms of addresses in the same or adjacent streets in the New Town. In each stage, extreme care was taken to match dates for individuals. In no case is a tie weighted to proxy for actual communication (e.g., as in a partnership or close friendship). In addition, in no case is a tie labeled as directed to one individual from another. Weight and direction of ties are impossible or exceedingly difficult to determine in most cases.

Identified ties were recorded in a spreadsheet database. The networks constructed from these data focus solely on links between one individual and another. Multiple relations are recorded as a single tie, resulting in a symmetrical matrix with cell values of either one (there is a tie) or zero (there is no tie). This approach avoids the problem of subjective weighting, although it can be argued to understate the influence of founders with multiple relations. However, social network researchers argue that multiple relations do not magnify the link between two individuals [Rogers and Kincaid, 1981].

Degree centrality and clique measures are reported in Appendix 1. As previously stated, degree centrality is measured as a percentage of the maximum ties available to each accountant in the founder group, and cliques are measured with a minimum
number set according to the network size (i.e., five). Mean degree centrality is also reported in Appendix 1, as are the mean number of cliques per individual and the group centrality score. For example, in the initial founding group, J. Maitland is connected to 43% of the other 28 founders in the group and is a member of six cliques of five or more individuals. The group has a centrality score of 32%, suggesting no particular dominance in it. Degree centrality and clique measures are reported in Appendix 1 for the initial planning group (29 members), the expanded group at the IAE foundation (68), the SAE royal-charter petition group (61), and the total group in the foundation (75).

DESCRIPTIVE ANALYSES OF THE IAE/SAE SOCIAL NETWORK

Combining measures of degree centrality and clique membership for each founder as a proxy for potential influence, the ten most connected founders in each group are ranked in Table 3 in descending order of connection.

<table>
<thead>
<tr>
<th>Initial Group</th>
<th>IAE Group</th>
<th>Petition Group</th>
<th>Total Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>T.G. Dickson</td>
<td>C. Pearson</td>
<td>T.G. Dickson</td>
<td>C. Pearson</td>
</tr>
<tr>
<td>C. Pearson</td>
<td>T.G. Dickson</td>
<td>C. Pearson</td>
<td>T.G. Dickson</td>
</tr>
<tr>
<td>J.A. Brown</td>
<td>J.J. Dickson</td>
<td>J.J. Dickson</td>
<td>J.J. Dickson</td>
</tr>
<tr>
<td>A. Horne</td>
<td>H.G. Watson</td>
<td>J.J. Dickson</td>
<td>A. Horne</td>
</tr>
<tr>
<td>A. Borthwick</td>
<td>J. Maitland</td>
<td>R. Balfour</td>
<td>J. Maitland</td>
</tr>
<tr>
<td>J.J. Dickson</td>
<td>J. Mackenzie</td>
<td>A. Borthwick</td>
<td>A. Borthwick</td>
</tr>
<tr>
<td>J. Brown</td>
<td>A. Horne</td>
<td>A. Horne</td>
<td>R. Balfour</td>
</tr>
<tr>
<td>J. Maitland</td>
<td>A. Borthwick</td>
<td>W. Wood</td>
<td>W. Wood</td>
</tr>
</tbody>
</table>

The initial planning group's individual degree centrality scores range from 64%, reflecting connections to nearly two-thirds of the group, to four percent, linked to one twenty-fifth of the group. Equivalent percentage ranges for the IAE, petition, and total groups are, respectively, 52 to 6%, 52 to 0%, and 49 to 3%. These ranges suggest that, despite UCINET determining the 75 founders were directly or indirectly tied to one another in a single block (i.e., this was a closely networked group), there is sufficient variation within the group to support Lee's [1996] argument of an
elite within an elite. For example, disclosures in Table 3 and Appendix 1 suggest T.G. Dickson, C. Pearson, and K. Mackenzie had ties to a considerable proportion of each group in which they were networked.

More generally, and based on the four rankings in Table 3, the ten most potentially influential individuals are, in descending order of connection: K. Mackenzie, C. Pearson, T.G. Dickson, H.G. Watson, J.J. Dickson, A. Horne, J. Maitland, A. Borthwick, R. Balfour, and W. Wood. The remaining three founders in Table 3 are J. Brown, J.A. Brown, and J. Mackenzie. Of these 13 men, five (A. Borthwick, J. Brown, A. Horne, K. Mackenzie, and H.G. Watson) were elected to the 1853 IAE Nominating Committee of 17 and the first IAE Council of 11. With respect to Lee’s [1996] analysis of most active founders, only A. Borthwick, J. Brown, J.J. Dickson, K. Mackenzie, and W. Wood in Table 3 are classed as active.

These results suggest that the IAE/SAE foundation and its initial management were not based solely on factors such as the magnitude of individual network ties or the level of organizational involvement. For example, two of the most-connected IAE/SAE members, R. Balfour and J. Maitland, were never involved in the management of the institution. One other, J. Mackenzie, resigned as an IAE member prior to the SAE royal-charter petition. However, J.J. Dickson, T.G. Dickson, C. Pearson, and W. Wood eventually became SAE Council members, with Wood serving as SAE treasurer between 1879 and 1892 and T.G. Dickson (1889-1892) and Pearson (1876-1879) elected to its presidency.

An additional means of determining the potential influence of individual IAE/SAE founders is network cliques. For example, in the total founder group in Appendix 1, the most-connected founders, K. Mackenzie, C. Pearson, and T.G. Dickson, are, respectively, members of 67, 60, and 56 of the 169 cliques of five or more founders. In other words, each of these men are members of more than one-third of the largest cliques in the network, thus taking their potential influence beyond the direct, one-on-one relations measured by degree centrality data. Even apparently uninvolved founders are members of a large number of five-man cliques. R. Balfour and J. Maitland are, respectively, members of 49 and 42 cliques and joint members of 17.

These data reflect the intricate nature of a social network such as the IAE/SAE foundation and reinforce earlier data about the group’s interconnectedness and elite nature. The data for the 75 founders were analyzed by the UCINET program to identify clusters or blocks of founders with ties that denote structural equivalence.
and, thus, to test Lee's [1996] suggestion of an elite within an elite. To illustrate, if founders A, B, and C each have ties to founders D and E, they are defined by UCINET as structurally equivalent and forming a cluster.

Using a search method that divides the total network into a defined number of partitions, the aim is to identify founders with identical relationships that form a cluster. An optimal solution to the partitioning starts from a random partition by the program and proceeds through multiple iterations of the data until a fit is achieved. In addition to clustering the founders, the program provides a correlation coefficient R-squared of the partitioned network compared to an ideal structure constructed from mean measures of

<table>
<thead>
<tr>
<th>Clusters</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
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<td>Founders</td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Founders in cluster with number of ties above mean in Appendix 1</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>Founders in cluster with number of ties below mean in Appendix 1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
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<tr>
<td>Total founders in cluster</td>
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<td>8</td>
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<td>7</td>
<td>6</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>75</td>
</tr>
<tr>
<td>Active founders in cluster*</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Founders on Nominating Committee*</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>First IAE/SAE Council*</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<td>Source: Lee [1996]</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
The data. In this case, the fit is 0.854 when the network is divided into 12 clusters.8

Table 4 emphasizes the complexity of the IAE/SAE network. Clusters 1, 5, 8, and 9 have a majority of founders with ties greater than the group mean in Appendix 1. This involves 24 of the founders. Cluster 1, however, has no active founder as defined by Lee [1996], and clusters 5, 8, and 9 contain an aggregate of six such men. In contrast, clusters 2, 6, 7, 10, and 12 contain no founders with network ties above the group mean but have a total of five active founders, again as defined in Lee [1996]. Similar contrasts can be seen with the Nominating Committee and the first IAE Council. For example, cluster 1 has no active founder but has four men on the Nominating Committee and two on the Council. By contrast, despite a 50% proportion of well-connected founders, cluster 3 has no Nominating Committee or Council members. Cluster 4 has a minority of well-connected accountants and three individuals on each of the Nominating Committee and the first Council.

The overall pattern in Table 4 is therefore difficult to interpret. Well-connected and structurally equivalent founders were not necessarily active in the foundation or involved in the initial IAE/SAE management. For example, cluster 3 contains one of the most-connected founders, J. Maitland, who was the Accountant of Court; R. Christie and J. Watson, both insurance company managers who withdrew from IAE membership; and C. Douglas, J. Howden, D. Marshall, and A.M. Paterson, who were among the youngest members of the Edinburgh public accountancy community in 1853. None of these men was active in the foundation or the initial management of the IAE/SAE. However, W. Wood, one of the most-connected and active founders, completes the cluster. By contrast, in cluster 4, despite a relatively few members with significant connections within the foundation group, there were a number of older and well-respected Edinburgh public accountants who gave the IAE/SAE leadership and credibility (i.e.; C.M. Barstow, J. Brown, T.R. Chaplin, and D.R. Souter). Cluster 11 has a mix of founders—J.M. Liddell and P. Morrison, both with relatively few connections and no foundation activity; W. Moncreiff and A.W. Robertson, well connected, active, and involved in insti-

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8A perfect fit gives an R-squared of 1.00. The robustness of the statistic was tested by running the data through the program several times to ensure consistent results based on different random seed starts.
tutional management at each stage of the foundation; and W. Myrtle, one of the Lord Advocate's petitioners.

What this part of the analysis suggests is that, IAE/SAE foundation activity and later management were determined by factors in addition to potential influence within the network (e.g., by age and practice experience, professional reputation, and practice type). Nevertheless, structurally equivalent founders did reach the highest positions in the IAE/SAE (e.g., D. Lindsay and H.G. Watson from cluster 1; C.M. Barstow, J. Brown, and D.R. Souter from cluster 4; A. Horne and T. Mansfield from cluster 5; A. Borthwick and T. Scott from cluster 8; K. Mackenzie and R.E. Scott from cluster 9; and W. Moncreiff and A.W. Robertson from cluster 11). In other words, the initial IAE and SAE Councils included five pairs and one trio of structurally equivalent founders from six separate clusters. This suggests a reasonable degree of interconnection in the institutional leadership of 1853 and 1854.

FINDING EXPLANATIONS FOR THE IAE/SAE NETWORK

Generalized comments on the foundation and the founders of the IAE/SAE are appropriate at this point. First, the social network analysis indicates that the number of ties and cliques (and the structural equivalence of ties in the network) are not good predictors of activity in the foundation or its subsequent institutional management. However, certain individuals may have had an invisible role in facilitating the foundation. For example, R. Balfour, an insurance company manager, became a SAE member but never participated directly pre or post-foundation. J. Maitland was also an inactive SAE member but in the strategically significant position of Accountant of Court. J. Mackenzie, manager of the Scottish Widows Fund, resigned from the IAE, did not participate directly in its foundation, and became Treasurer of the Bank of Scotland a decade later. A study that focuses on this social network feature is Padgett and Ansell [1993]. They demonstrated the hidden domination and influence of the Medici family in 15th century Florence. The Medicis "invisibly" arranged strategic marriages, business affairs, and financial funding through their deliberately constructed network of direct and indirect connections with other families. Given the nature of the IAE/SAE network, founders such as Balfour, Maitland, and Mackenzie may have served a similar role in the foundation.

Second, following on from the previous point, several of the most-connected founders appear to have been useful to the
IAE/SAE foundation as much for their social or business connections as their public accountancy reputations. For example, R. Balfour was the Edinburgh manager of a Glasgow insurance company and, by 1853, had numerous family connections to advocates and Writers to the Signet, and a lifetime connection to K. Mackenzie, the first IAE/SAE secretary. A. Borthwick's father was the first manager of the National Bank of Scotland and worked closely with several of the managers of large insurance companies. T.G. Dickson had numerous family connections to Writers to the Signet, and his father was the senior partner of one of Edinburgh's leading law firms. J. Maitland not only had strong legal and land-owning connections, but was the first Accountant of the Court of Session at the time of the IAE/SAE foundation, a position of considerable relevance to the Edinburgh founding accountants, who believed their court-related services were under attack from Parliament [Walker, 1995].

W. Moncreiff was well connected to the legal profession. His father was an advocate, judge, and landowner, and his brother was Lord Advocate for Scotland at the time of the IAE/SAE foundation, a position of considerable importance to the SAE royal charter and also the troubling bankruptcy and insolvency legislation of the time. J. Mackenzie came from a distinguished family of landowners and lawyers, and his brother was married to the daughter of the Solicitor General of Scotland during the foundation period. K. Mackenzie belonged to one of Scotland's most distinguished families of lawyers and landowners, and his family was linked through marriage to T. Mansfield, later to become the second SAE president. C. Pearson's father and grandfather were senior executives in the Scottish Board of Excise and had numerous legal connections. He was partner to J. Brown, the first IAE/SAE president, who was arguably the senior public accountant in Edinburgh in 1853. One of Pearson's sons became Solicitor General and Lord Advocate of Scotland during the early history of the SAE. A.W. Robertson's father and grandfather were Writers to the Signet and his uncle was a Scottish judge. H.G. Watson's brother was president of the Royal Society of Painters, and Watson himself was secretary to the Royal Company of Archers in 1853. Eleven other founders were Company members at that time.

In other words, many of the IAE/SAE founders came from leading families in the upper-middle-class of Edinburgh. They not only had strong professional reputations and connections, but were also members of organizations involving royalty and nobility in their membership and management. This undoubtedly provided
valuable social connections in addition to professional credibility. The most obvious direct connections were to the landowning community, the legal profession, and the insurance industry. These are matters investigated in the later empirical analysis of Table 5. Indirect connections, however, are much more difficult to analyze. In this study, they are attributed to board and individual memberships of organizations involving individuals from the highest social classes. These memberships involve boards of directors of major banks, such as the Bank of Scotland [Saville, 1996]; significant clubs and institutions, such as the Speculative Society at the University of Edinburgh [Watson, 1905] and the Royal Society of Edinburgh [Royal Society of Edinburgh, undated]; and the Queen's Bodyguard in Scotland, the Royal Company of Archers [Paul, 1875; Hay, 1951].

Having analyzed IAE/SAE degree centrality and clique measures, it is appropriate to determine explanations for their considerable variation. For this purpose, the Borgatti et al. [1992] UCINET program permits linear regression models to be tested with variables generated by it. These are reported in Table 5.

Table 5 describes four regression models. Each equates a dependent variable (degree centrality for each founder) with two, four, or five independent variables (i.e.; practice type; number of landowner, legal, and insurance company links; and birthplace, each as described in Table 2). For purposes of this analysis, actual measurements are used with the dependent variable (as per column 7 of Appendix 1) and the three independent variables concerning links. With practice type, however, a coding frame is adopted (i.e.; public accountancy set at three, insurance management at two, and legal and banking positions at one). For birthplace, a coding frame is also used, with Edinburgh set at three, Lothians at two, and other regions at one. In order to provide validity to the regression calculations, a rule of thumb of one independent variable for approximately every 15 observations is used in each model. The robustness of the regression results is automatically tested in the UCINET program by 1,000 random regression calculations for each independent variable. The results of this bootstrapping are reported in the last five columns of Table 5 (i.e., as a percentage of the 1,000 random tests). With respect to the four variations of the IAE/SAE foundation group in Table 5, the results reveal a consistent pattern. The high-

"Other regression models were run using data summarized in Table 2. Factors
TABLE 5
Linear Regressions of IAE/SAE Founder Groups

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>N</th>
<th>$R^2$</th>
<th>$F$</th>
<th>$p$</th>
<th>Practice</th>
<th>Land</th>
<th>Law</th>
<th>Insurance</th>
<th>Birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree Centrality of Initial group</td>
<td>29</td>
<td>0.33</td>
<td>6.25</td>
<td>0.00</td>
<td>-</td>
<td>0.03</td>
<td>-</td>
<td>0.00</td>
<td>-</td>
</tr>
<tr>
<td>IAE group</td>
<td>68</td>
<td>0.48</td>
<td>11.60</td>
<td>0.00</td>
<td>0.05</td>
<td>0.03</td>
<td>0.05</td>
<td>0.00</td>
<td>0.04</td>
</tr>
<tr>
<td>SAE petition group</td>
<td>61</td>
<td>0.41</td>
<td>9.63</td>
<td>0.00</td>
<td>0.11</td>
<td>0.01</td>
<td>-</td>
<td>0.00</td>
<td>0.03</td>
</tr>
<tr>
<td>Total group</td>
<td>75</td>
<td>0.48</td>
<td>12.79</td>
<td>0.00</td>
<td>0.05</td>
<td>0.01</td>
<td>0.03</td>
<td>0.00</td>
<td>0.04</td>
</tr>
</tbody>
</table>
a public accountant originating from Edinburgh. Typically, the most-connected founders, at whatever stage of the IAE/SAE foundation, were Edinburgh-born public accountants, the most connected to landowners and the legal profession, and the most involved with the management and governance of the insurance industry. The statistically weakest part of the models concerns practice type as an explanation of variations in degree centrality in the petitioning group. The overall result, however, reinforces the impression of cohesiveness in the IAE/SAE foundation group. The strongest explanation for potential influence variation relates to insurance connections. The most-connected founders in the group had the greatest association with the insurance industry. In addition, each variation of model provides reasonably strong and statistically robust results.

THE IAAG FOUNDERS

The 51 IAAG founders are listed in Appendix 2. There were 27 requisitionists (less-experienced practitioners) and 15 requisitionees (more-experienced practitioners) in October 1854, and nine other members admitted during 1854. Following two withdrawals, this resulted in 49 signatories to the royal-charter petition of October 1854. The IAAG foundation involved 22 meetings until the receipt of the royal charter in 1855. Individual involvement in the foundation was bimodal as in the IAE/SAE foundation. There were five accountants (approximately 10% of the group) who attended more than 60% of the 22 meetings (W. Mackenzie, 22 meetings; J. McClelland, 20; P. White, 19; A. McEwan, 18; and W. Anderson, 14). All five men were requisitionees and officers or members of the first governing IAAG Committee. A further four founders played a less active part in the process (T.G. Buchanan, eight meetings; A. Cuthbertson, D. Dreghorn, and J.W. Guild, seven each). Buchanan, Cuthbertson, and Dreghorn were requisitionees and members of the first governing IAAG Committee. Guild was the son of a Solicitor of the Supreme Court in Edinburgh, a requisitionist, and a member of the first IAAG Bankruptcy Committee. He became an IAAG Council member in 1856 and was IAAG president in 1873-1874 and 1878-1881. The remaining founders played little or no explicit part in the foundation. In fact, 17 of the 51 men (33%) attended no recorded meeting in the foundation process.

The personal attributes of the IAAG founders are described in Table 6. They are similar in nature to those of the IAE/SAE
founders and are contrasted where relevant with the Edinburgh data reported in Table 2.

A large proportion (55%) of the IAAG founders were born outside the city of Glasgow and its surrounding region. This is unsurprising given the quadrupling of Glasgow's population by immigration in the first half of the 19th century [Strang, 1862]. However, it does suggest that a significant number of Glasgow founders did not have the same childhood, education, and training contacts of founders who originated in the city. This finding is different from the IAE/SAE situation where approximately six of every ten founders were born in Edinburgh, thus having an opportunity to build a closer community at an earlier stage in their lives.

Second, paternal occupation also provides a clear distinction between the IAAG and IAE/SAE founders. Approximately one in every ten IAAG founders was the son of a landowning and/or lawyer father, compared to approximately four of every ten IAE/SAE founders. By contrast, 49% of IAAG founders had banker, merchant, manufacturer, or farmer fathers, compared to 18% of the IAE/SAE founders.

Third, the age of Glasgow founders in 1853 reveals further differences in the two communities. The majority of IAAG founders were aged between 20 and 39, whereas the majority of IAE/SAE founders were between 40 and 59. The mean ages of the respective groups are 39 and 44 years. This suggests that the Edinburgh founders were members of a more mature and established community, which is also reflected in the contrast of practice experience by 1853. Sixty-three percent of IAAG founders had less than ten years of practice experience, compared to 65% of IAE/SAE founders with between ten and 29 years of experience. The mean experience for the two groups in 1853 is nine and 16 years, respectively.

Fourth, 53% of Glasgow founders had practices in which stockbroking or a combination of accountancy and stockbroking and other commercial activities were the main services provided. This contrasts with a significant proportion of the Edinburgh founders (32%) involved in insurance management, court appointments, or banking. These findings are supported by a contrast of memberships in non-accounting bodies. Fifty-one percent of IAAG founders were members of the Glasgow Stock Exchange Association in 1853, and 28% of the IAE/SAE founders were members of the Institute of Actuaries in the same year.
Fifth, the large majority of IAAG founders (67%) had no observable connections to the legal profession, compared to 25% of the IAE/SAE founders. Similarly with respect to insurance connections (excluding agencies), 88% of IAAG founders had no connections compared to 20% of the IAE/SAE founders. Similarly, only 23% of IAAG founders had any connections to the banking or financial sector, compared to 44% of the IAE/SAE founders.

**TABLE 6**

The IAAG Founders' Attributes in 1853*

<table>
<thead>
<tr>
<th>Father's Occupation</th>
<th>Birth Place</th>
<th>Age</th>
<th>Practice Type</th>
<th>Practice Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>Years %</td>
<td>%</td>
</tr>
<tr>
<td>Landowner and/or lawyer</td>
<td>Glasgow</td>
<td>29</td>
<td>20-39</td>
<td>55</td>
</tr>
<tr>
<td>Other professional</td>
<td>Region</td>
<td>16</td>
<td>40-59</td>
<td>39</td>
</tr>
<tr>
<td>Merchant or other</td>
<td>Other</td>
<td>55</td>
<td>60+</td>
<td>16</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Legal Links</th>
<th>Insurance Links</th>
<th>Bank Links</th>
<th>Glasgow Stock Exchange</th>
<th>Marital Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>3,4</td>
<td>17</td>
<td>2,3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1,2</td>
<td>27</td>
<td>1</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>67</td>
<td>0</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*All data are expressed as percentages of the 51 founders listed in Appendix 2.
ager, director, or audit connection to insurance companies, whereas 73% of IAE/SAE founders had at least one connection. Only in the case of banking connections is there some similarity between the two foundation groups with 96% of the IAAG founders and 75% of the IAE/SAE founders having no links to banking management or governance.

Overall, this analysis of the personal attributes of the IAAG founders discloses interesting features and points of contrast with those of the IAE/SAE founders. It suggests that, consistent with a variety of previous studies [e.g.; Brown, 1905; Stewart, 1977; Macdonald, 1984; Kedslie, 1990b], the IAAG and IAE/SAE founders were members of distinguishable public accountancy communities.

THE SOCIAL NETWORK OF IAAG FOUNDERS

The social network of IAAG founders is described by two sets of relational measures. The first set comprises degree centrality scores derived from the observed social ties between each of the Glasgow founders by 1853. The second set describes cliques of founders with clique size set at a minimum of five founders. Degree centrality and clique measurements are computed and presented as for the IAE/SAE foundation. Individual and mean degree centrality measures are reported in Appendix 2 for the requisitionist, requisitionee, and total foundation groups. Because of the small size of the subgroups, individual and mean clique memberships are reported for the total group only.

With respect to the requisitionist group of 27 individuals, the group centrality score of 25% indicates no particularly dominant requisitionist. C. Cairns, C. Cunningham, J. Fleming, and W.G. McLean are the most-connected accountants within the group, tied to at least 11 of the 26 other members. A. McNicholl, on the other hand, is connected to no other requisitionist. Nine of the 27 requisitionists are linked to approximately one-third of their colleagues.

For the smaller requisitionee group of 15 individuals, there is greater cohesion compared to the requisitionist group. The degree centrality index of 25% indicates no domination by any individual. However, the mean score of 64% signals close connections within the group. A. Black and P. White are connected to 12 of their 14 colleagues, and 11 of the 15 individuals are linked to at least half of the group. A. Cuthbertson and D. Dreghorn, who are the least-connected members, became initial IAAG Committee members.
The mean degree centrality score for the total foundation group is 29%. On average, each IAAG founder was connected to approximately 15 of the other 50 founders. The group centrality score is 28%, suggesting no particularly dominant founder existed in the total group.

Of additional interest in Appendix 2 is how the potential influence of the requisitionists and requisitionees changed when they are considered as part of the total group of founders. In terms of degree centrality scores, and in the case of the requisitionists, the predominant feature is of little or no change. Twenty-five of the 27 requisitionists fall into this category, and only C. Gairdner and H. Kerr demonstrate a significant increase in influence as part of the total group. Respectively, they were partners of P. White (the first IAAG treasurer) and W. Anderson (an initial IAAG Committee member), two of the most-connected founders. In the case of the requisitionees, the tendency is for individual influence to drop significantly within the total group. Fourteen of the 15 in this subgroup can be classified in this manner, and only J. McClelland's influence increases within the larger group, thus providing a possible reason why he became the first IAAG president.

What these analyses reveal is that, the requisitionists and requisitionees were two relatively distinct groups of public accountants in Glasgow. Most of the founders have proportionally fewer connections within the total founding community than in their requisition subset. In order to explore this issue further, Table 7 reports the most-connected members of each of the three groups analyzed. To provide a reasonable proxy for potential influence within the IAAG foundation, the degree centrality and clique scores for the total group in Appendix 2 are combined. For the subgroups, influence is measured by degree centrality alone.

**TABLE 7**

<table>
<thead>
<tr>
<th>Requisitionists</th>
<th>Requisitionees</th>
<th>Total Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. Cunningham</td>
<td>A. Black</td>
<td>W. Anderson</td>
</tr>
<tr>
<td>J. Fleming</td>
<td>P. White</td>
<td>P. White</td>
</tr>
<tr>
<td>W.G. McLean</td>
<td>W. Anderson</td>
<td>W. Auld</td>
</tr>
<tr>
<td>J. McGeorge</td>
<td>T.G. Buchanan</td>
<td>A. Black</td>
</tr>
<tr>
<td>J.L. McKirdy</td>
<td>J.C. Foulsds</td>
<td>C. Cunningham</td>
</tr>
<tr>
<td>W. Cowan</td>
<td>R. Aitken</td>
<td>W.G. McLean</td>
</tr>
<tr>
<td>D.E. Outram</td>
<td>W. Auld</td>
<td>A. McEwan</td>
</tr>
<tr>
<td>G. Wink</td>
<td>A. McEwan</td>
<td>R. Aitken</td>
</tr>
<tr>
<td></td>
<td>W. Mackenzie</td>
<td></td>
</tr>
</tbody>
</table>
None of the most-connected requisitionists became an initial IAAG officer or Committee member, even though C. Cunningham and W. McLean were two of the most influential men in the total group. Cunningham was the 45-year-old son of a leading Glasgow merchant and a founding member of the Glasgow Stock Exchange Association. He was never involved in IAAG affairs and died in 1861. McLean was a 49-year-old Glasgow town councilor and magistrate and became an IAAG Council member in 1872.

Six of the nine most-connected requisitionees are also among the most-connected men in the total group, who also became initial IAAG officers and Committee members. W. Auld and A. Black had no later involvement in the IAAG, and J.C. Foulds became an IAAG Council member in 1858. Each of these men was a stockbroker and significantly involved in the management of the Glasgow Stock Exchange Association. By contrast, J. McClelland, the first IAAG president, was regarded as the leading Glasgow accountant of his time [Maclehose, 1886]. A. Cuthbertson and D. Dreghorn were elected to the first IAAG Committee with relatively small connections within the requisitionee and total foundation groups. Cuthbertson was one of Glasgow's leading merchant-accountants in 1853. He was the youngest son of William Cuthbertson, the "founder of public accountancy" in Glasgow [Stewart, 1977], and a partner with his brother in a leading firm of merchants that also provided public accountancy services. Dreghorn was a well-known member of the Glasgow business community and an active town councilor and magistrate of the city [Tweed, 1983].

What the previous analysis clarifies is that, the Glasgow founders comprised an elite group of two sets of individuals. The requisitionists were relatively younger and less experienced than the requisitionees. Although they were less networked than the requisitionees, they contained a number of members who were well connected within the context of the total group, thus providing a potential to bridge the two subgroups. Nevertheless, not even these individuals became part of the original management of the IAAG. On the other hand, several requisitionees did join the initial IAAG Committee despite relatively fewer connections in the requisitionee and total groups.

The elite nature of the IAAG foundation is further clarified by examining some of the original officers and committee members not previously mentioned. All were requisitionees. R. Aitken, son of the Glasgow agent for the Bank of Scotland, was one of the founders of the Glasgow Stock Exchange Association in 1844,
active in its management and governance, a former partner of T.G. Buchanan, and a partner in 1853 of W. Mackenzie, the first IAAG secretary. W. Anderson was well connected to the legal profession, a leading bankruptcy practitioner, trained by J. McClelland, and a partner of H. Kerr (one of the most-connected requisitionists). T.G. Buchanan was linked to Glasgow merchant houses and banks (e.g., the Union Bank and the West of Scotland Bank) and was first vice-chairman of the Glasgow Stock Exchange Association. A. McEwan, a former apprentice of J. McClelland, was a partner with W. Auld (one of the most-connected requisitionists), the first secretary of the Glasgow Stock Exchange Association, and connected to the legal profession and insurance industry. W. Mackenzie was the son of a landowner and lawyer, trained with and then became a partner of J. McClelland, and married the daughter of the Sheriff-Substitute of Renfrewshire. P. White was one of the founders of the Glasgow Stock Exchange Association, active in its management, and a partner of C. Gairdner (one of the most-connected requisitionists).

Table 8 provides a concluding statement about the elite structure of the IAAG foundation community. Using a tabu search routine, a cluster analysis of the total founder group provides further evidence of its interconnectedness. The search split the group into 12 clusters of founders with identical relationships. The routine was executed several times to ensure consistent results. As seen in Table 8, seven of these clusters contain relative isolates who did not necessarily lack connections within the group as a whole (i.e.; A. Cuthbertson, D. Cuthbertson, W. Jamieson, M. Mitchell, A. McNicholl, R. Scobie, and J. Watson). The five remaining clusters contain 26 of the 27 requisitionists, 12 of the 15 requisitionees, and eight of the nine most active founders, all of whom became initial IAAG officers or Committee members. These clusters strongly evince the cohesiveness of the IAAG foundation group.

EXPLAINING THE IAAG COHESION

In order to explain differences in the ties between IAAG founders, linear regression models were constructed for four founder sets (requisitionists, requisitionees, officers and Committee members, and the total foundation group). The models are reported in Table 9. The degree centrality scores reported in Appendix 2 represent the dependent variable indicative of differences in ties in each model. The independent variables are as
stated in Table 6 (parental occupation, age in 1853, practice type and experience, legal connections, and marital status in 1853). These characteristics include factors significant in the IAE/SAE study (practice type and legal connections). Others have been emphasized in earlier research of the Glasgow founders; i.e., parental occupation (a proxy for connections to the commercial community) and practice experience (representing the 1853 requisition division between experienced and less-experienced accountants). With two exceptions, the independent variables are based on actual measurements and dealt with as for the IAE/SAE
founders. The exceptions are parental occupation (1 = landowner and/or lawyer, 2 = other professionals, 3 = merchants, etc.) and marital status (1 = married, 0 = unmarried). In order to protect the validity of the regression calculations, a conventional rule of thumb of one independent variable for approximately every 15 founder-observations is adopted in each model. As with the IAE/SAE founders, the robustness of each model is tested in the UCINET program by a form of bootstrapping. The results are reported in Table 9 as a percentage of 1,000 random regression calculations.

The data in Table 9 represent the best explanatory models for each of the four IAAG groups within the inevitable constraint of the data collected. Use of other independent variables provided significantly weaker explanatory models. For the requisitionists, those founders with the largest number of ties are the oldest in the subgroup and have the greatest amount of public accountancy experience. An explanation of this finding suggests that social connections are a function of age and experience. For the requisitionees, on the other hand, those with the greatest number of ties are those who practiced either exclusively as stockbrokers or in combination with public accountancy services. For the initial-officer and Committee-member group, marital status is the only significant explanation of tie differences; i.e., the most-connected founders in the group were married. For the total group, tie variations are explainable in part by a combination of three independent variables. Those founders with the greatest number of network ties had fathers connected to the commercial, manufacturing, or farming communities. They were married and most connected to the legal profession.

These results suggest that, for the IAAG foundation and unlike the IAE/SAE foundation, there is no particularly consistent explanation of variations in network ties. There are statistically significant results to suggest married IAAG founders from a commercial background with legal connections had the highest degree centrality scores. These findings are consistent with prior expectations with respect to mercantile and related connections. However, the marital-status and legal-connection variables suggest other factors at play not evident in prior studies. It is also clear that factors significant in the IAE/SAE foundation (birthplace, practice type, and insurance connections) are not significant in the case of the IAAG.
<table>
<thead>
<tr>
<th>Degree Centrality</th>
<th>N</th>
<th>R²</th>
<th>F Value</th>
<th>p Value</th>
<th>PO</th>
<th>AG</th>
<th>PT</th>
<th>PE</th>
<th>LE</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requisitionists</td>
<td>27</td>
<td>0.34</td>
<td>6.10</td>
<td>0.00</td>
<td>-</td>
<td>0.03</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Requisitionees</td>
<td>15</td>
<td>0.27</td>
<td>4.86</td>
<td>0.04</td>
<td>-</td>
<td>-</td>
<td>0.02</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Officials</td>
<td>13</td>
<td>0.40</td>
<td>7.21</td>
<td>0.03</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.02</td>
<td>-</td>
</tr>
<tr>
<td>Total group</td>
<td>51</td>
<td>0.39</td>
<td>9.97</td>
<td>0.00</td>
<td>0.01</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.03</td>
<td>0.00</td>
</tr>
</tbody>
</table>

PO = parental occupation; AG = age in 1853; PT = practice type; PE = practice experience by 1853; LE = legal connections; MS = marital status in 1853.
COMPARING THE IAE/SAE AND IAAG NETWORKS

Table 10 compares the interconnectedness of the IAE/SAE founders with those of the IAAG group:

The greater cohesion of the IAAG group compared to its IAE/SAE equivalent is evident in the above data. Differences are significant at p<0.05 using the chi-squared test of association. Eighty percent of the IAE/SAE founders were connected to less than one-third of their colleagues. The equivalent IAAG datum is 58%. Similarly, whereas only 8% of the IAE/SAE group were connected to 40% or more of their fellow founders, 28% of the Glasgow founders fell into this category. The respective mean centrality scores of 21% and 29% reinforce this observation.

<table>
<thead>
<tr>
<th>Degree Centrality Measure</th>
<th>IAE/SAE</th>
<th>SAE</th>
<th>$X^2$</th>
<th>pValue</th>
</tr>
</thead>
<tbody>
<tr>
<td>00-20</td>
<td>47</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td>33</td>
<td>31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-40</td>
<td>12</td>
<td>14</td>
<td></td>
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<tr>
<td>41-60</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>10.23</td>
<td>0.02</td>
</tr>
<tr>
<td>Mean</td>
<td>21</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
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However, both groups have a low 28% group centrality score, suggesting no particularly dominant individual existed in either group. In addition, there are 169 IAE/SAE cliques of five or more founders, compared to 52 IAAG cliques, with a mean size of six individuals in both cases. Finally, the 12 IAE/SAE cluster memberships ranged from four to ten members, whereas the 12 IAAG cluster memberships ranged from one to nine individuals. Most of this evidence supports the notion that a more cohesive group than its IAE/SAE counterpart initiated the IAAG foundation.

A search of the IAE/SAE and IAAG archival databases reveals a data set that both connects the two foundation groups and describes school, university, training, and business ties involving one or more individuals from each foundation community. These connections provide evidence of potential communication between the two communities. In other words, in addition to individual non-foundation links to either city, there was a social network of IAAG and IAE/SAE founders by 1853. This network
was a bridge between the two groups and had the potential for information flows about their respective intentions and activities. Appendix 3 reports the degree centrality scores and cliques for the 30 founders linking the two foundation communities in this way.

The data in Appendix 3 reveal ties between the founding communities that involved some of the most-connected founders in each group. J.M. Baillie, for example, was well connected to Edinburgh landowners and lawyers and was a partner of W. Moncreiff, brother of the Lord Advocate for Scotland. R. Balfour was Edinburgh secretary of the City of Glasgow Assurance Company and one of the most-connected IAE/SAE accountants to the legal profession. As previously stated, J. Maitland was the Accountant of Court. Other IAE/SAE founders who also had potentially great influence are J. Brown and T. Mansfield, the first two presidents of the SAE. In the IAAG group, D. Cuthbertson was one of Glasgow’s best-known accountants, with strong board-of-directors links to the insurance industry in Edinburgh. His younger brother, A. Cuthbertson, was active in the IAAG foundation and an initial IAAG Committee member, as was A. McEwan, the brother of a lawyer and the first IAAG auditor. J.W. Guild, whose father was a Solicitor to the Supreme Court in Edinburgh, trained as a lawyer there and moved to Glasgow in 1848 as a bankruptcy specialist.

The above brief analysis suggests there were social network ties between leading IAAG and IAE/SAE founders. This introduces the potential for debates, decisions, and actions of the two foundation communities to be known to each other. A linear regression model supports this conclusion. The dependent variable is the degree centrality scores of the bridging founders named in Appendix 3. The most significant independent variables are practice type and degree centrality scores in the individual foundations. The results suggest that the interconnected founders with the highest degree centrality scores are those in practice as public accountants, with the highest centrality scores in their individual foundation network ($R^2$ 0.33; $F$ value 6.58; $p$ value 0.00). This is consistent with the proposition of a potential bridging influence by founders in the two communities. In other words, those public accountants with the highest bridging connections were those with the highest connections within their own foundation community.
CONTRIBUTIONS, CONCLUSIONS, AND LIMITATIONS

This study contributes in a number of ways to the early history of institutionalized public accountancy in Scotland. First, it demonstrates that the social networks of the IAE/SAE and IAAG founders evolved gradually over several decades through a combination of school, university, practice, business, social, and address ties. By 1853, both networks were established and mature. The social network analysis of the IAE/SAE foundation demonstrates that the 75 founders were a single social group or block with no isolates. All Edinburgh founders were connected directly or indirectly to each other, with a range of degree centrality scores from three to 49%. In the case of the IAAG foundation, the situation is almost identical with only one isolate in that community and degree centrality scores for the other 50 founders ranging from four to 56%. The network analyses reveal that the IAAG founders were more closely networked than their IAE/SAE counterparts. These findings portray both groups of founders as cohesive communities, with a small minority of each group acting as a bridge between the IAE/SAE and the IAAG.

In general terms, the personal attributes of the IAE/SAE and IAAG founders suggest that most individuals had at least middle-class origins. More specifically, the personal attributes and social ties of the IAE/SAE founders provide evidence that they were a predominantly upper-middle-class community within Edinburgh. On the other hand, the personal attributes and social ties of the IAAG founders are socially consistent with the mercantile and farming nature of Glasgow and its surrounding regions in the middle of the 19th century. In combination, and in the context of other accountants in both cities, these findings suggest that the IAE/SAE and IAAG founders were cohesive and elite communities by 1853.

The range of degree centrality measures for the 75 IAE/SAE founders confirms Lee's [1996] tentative conclusion of the existence of an elite within an elite in the IAE/SAE. The Edinburgh founders with the highest scores were predominantly public accountants with Edinburgh origins and the largest number of ties to landowners, lawyers, and insurance companies. A similar super-elite cannot be detected in the IAAG foundation. It involved two subsets of founders differentiated by age and experience rather than by network ties and social connections. Thus, although the evidence for both foundation groups is consistent with the expectation of overall cohesiveness and elitism, the
IAE/SAE founders were different from their IAAG counterparts in terms of predominant social class and inner elitism.

In both the IAE/SAE and IAAG foundations, there appear to be two sets of individuals at work in the process. The first set contains founders most concerned to institutionalize their profession of public accountancy. They are typically to be found in the initiating groups of founders. The second set comprises individuals invited by members of the first set to be involved in the foundations. In the case of the IAE/SAE, the invitees were mainly insurance managers who were well connected within and outside the IAE/SAE network. Because they were not primarily public accountants, they were termed honorary members of the IAE in 1853. However, by the time of the SAE royal charter, most of the honorary members chose to leave the IAE. It can therefore be concluded that the brief association of the IAE with well-connected insurance managers provided credibility to the foundation at a critical stage of its early history.

By contrast, the IAAG foundation did not involve the temporary or honorary membership of leading practitioners in areas outside public accountancy. However, the foundation started with one set of junior practitioners petitioning a more senior set to join with them in institutionalizing public accountancy in Glasgow. The invitees were typically well connected within the overall group and predominantly involved in stockbroking rather than public accountancy. However, unlike their Edinburgh insurance counterparts, these men were involved in the foundation and became IAAG members and its initial officers. Unlike the IAE/SAE foundation and the involvement of insurance managers, the conclusion here must be that these senior providers of predominantly non-public accountancy services were necessary to the long-term credibility of the IAAG. These findings are consistent with the second expectation of the study that both foundations involved individuals who would not ordinarily be described as public accountants.

The various regression analyses of the social network data confirm the prior expectation that the most-connected Edinburgh founders were most associated with landowners, lawyers, and insurance companies. By contrast, the Glasgow founders were most connected to merchants, manufacturers, and farmers, only moderately to lawyers, and rarely to insurance management and governance. These findings are also consistent with a prior expectation. However, in the case of the IAAG founders, marital status appears to be strongly related to variations in the
network connections of the founders (the most-connected men were married by 1853). There is no obvious explanation for this unexpected result.

Although most of the founders with the greatest number of ties and clique memberships were the most involved in their respective foundations, there were a number of founders who established different patterns. For example, R. Balfour, T.G. Dickson, J. Maitland, and C. Pearson are four of the most-connected founders in the IAE/SAE network; yet, they did not openly participate in the foundation or its subsequent management. Similarly, in the case of the IAAG, J. Gourlay, J. Fleming, J.C. Foulds, and H. Kerr were well connected but relatively uninvolved. This suggests that certain IAE/SAE and IAAG founders with potentially influential positions in their respective communities had either little incentive to participate explicitly in the foundation events or preferred to be involved in a less public way. This emphasizes the value of social network analysis and is consistent with analyses in other social history areas [e.g.; Bearman, 1993; Padgett and Ansell, 1993]. In other words, network analysis helps to identify those individuals with strong ties in a network that did not need to be visibly active to exercise influence. Alternatively, as in this study, there are others with relatively fewer ties that appeared to compensate by being very involved (e.g., T. Martin and G. Meldrum of the IAE/SAE and J.W. Guild of the IAAG).

Overall, the institutionalization of Edinburgh and Glasgow public accountants in 1853 was based on strongly networked groups of typically experienced public accountants who, generally speaking, were well entrenched in the upper strata of their respective local societies. The study reveals the considerable insights to be gained from examining a social situation in terms of the relations and attributes of the participants rather than the latter alone. The major contribution of the study, therefore, is to bring social network analysis to accounting history research and, in so doing, to provide a better understanding of the IAE/SAE and IAAG foundations and their founders.

The limitations of the study are equally clear. First, the analysis is based on the relations discovered in accessible archives. There may well be more evidence undiscovered. The results of the study are therefore conservatively stated. Second, the study does not attempt to measure the actual influence of the individual founders. It allows generalizations to be made about possible behavior but not about actual activity. The latter would require a different type of archival research that may not be possible.
because of lack of evidence. That attempts should be made to do such research is not in doubt. Likewise unquestioned is the need to examine more specifically the lives and roles of individual founders to discover more about their involvement, or lack thereof, in the IAE/SAE and IAAG foundations. In particular, the specific roles of the most connected but least active founders are worthy of future research.

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## APPENDIX 1

### The Founders of the IAE/SAE

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## APPENDIX 2

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| observations    |                   |                  |                |
| Centrality index| 25                | 28               | 22             |
ACCOUNTABILITY AND RHETORIC DURING A CRISIS: WALT DISNEY’S 1940 LETTER TO STOCKHOLDERS

Abstract: In 1940, Walt Disney was faced with crafting a message of corporate accountability under duress. His company, the product of his creative genius, had been forced to submit to public accountability. It had a pressing need to raise preferred equity finance for a major expansion during a period of market uncertainty, war, and reported losses. This paper conducts a “close reading” of the “Letter to Stockholders” in Walt Disney Productions’ 1940 annual report, the first such letter signed by Walt Disney. The letter’s rhetorical features, including metaphor and ideology, are examined in the context of the times. What is revealed is an accountability document skillfully crafted with the exigencies faced by Disney’s company firmly in mind. The letter offers suggestive insight to the world as Disney made sense of it. The paper contributes to understanding the use of rhetoric by top management in activities related to aspects of financial accountability and reporting. It also helps to understand better a significant public persona of the 20th century, Walt Disney.

Acknowledgment: The authors wish to acknowledge the helpful comments of the reviewers.
SCOPE AND OBJECTIVES

Analysis of annual reports, including letters by CEOs to stockholders, has a long history in management and accounting literatures. Discourse by CEOs is important not only because of the power that corporate leaders wield in their own organizations, but also because of their political and cultural influence generally. Since such discourse may be viewed as a form of sense making (Weick, 1995), its study also has value because the CEO may be talking or writing at least partly to himself or herself, and in so doing creating, justifying, and reacting to the world thus fashioned. We think, talk, and write to help us learn and understand what we then know (Lakoff and Johnson, 1980; Lakoff, 1993; Weick, 1995). CEOs are no different.

The many papers which have examined CEOs' letters to shareholders included in corporate annual reports have had a focus other than exploring the metaphors and ideologies at play within such discourse (e.g.; Bettman and Weitz [1983]; Salancik and Meindl [1984]; Hager and Scheiber [1990]; Jones and Shoemaker [1994]; Abrahamson and Amir [1996]; Thomas [1997]; Courtis [1998]; Hyland [1998]; Devinney and Kabanoff [1999]). This paper follows a path largely untrodden in previous studies of stockholders' letters in accounting annual reports. It explores, by means of a "close reading," meaning in the narrative of the stockholders' letter of the first public annual report of the global company which still bears Walt Disney's name. Such accountability narrative merits close reading since it is part of the "battery of belief-forming institutions" (Tinker, 1985, p. 82] top management uses to define the language by means of which its self-accounts are to be written. Our close reading is performed with an interest not only in "examin[ing] the way discourses are constructed in order to achieve certain effects" (Eagleton, 1983, p. 205), but also to help reveal more about the author.

The close reading we conduct is similar to Slagell's [1991, p. 155] "close textual analysis" of Abraham Lincoln's second inaugural address during the American Civil War, in which she "considers the speech in relation to its historical setting" (pp. 155-156). Of course, in contrast to an American president's inaugural address, CEOs' annual letters to stockholders are mundane, common discourses of seemingly minor importance. It is perhaps because of their commonness and institutionalized, periodic, calendric role in the functioning of our socioeconomy that such common documents deserve scrutiny. Letters to stockholders, written by CEOs
and published in corporate annual reports, are too important a part of the ideological paraphernalia of our society to be ignored or brushed aside as mere rhetoric.

The chosen text is the letter to stockholders included in the annual report of Walt Disney Productions, issued in respect of the financial year ended September 28, 1940, and signed by Walt Disney. Disney's company had been compelled to seek outside capital to finance the expansion of its studio. Our analysis uncovers aspects of the public persona of the then very prominent Walt Disney, a person reputedly "the most significant figure in graphic arts since Leonardo" [Garraty and Carnes, 1988, p. 131, citing British cartoonist David Low]. He, or his alter ego, is revealed, inter alia, as a skillful financial and business rhetorician whose discourse reveals ways of thinking that accord with the ideology of the market [Carrier, 1997]. Such microanalysis of an accountability text prepared by top management is consistent with entreaties for accounting-related narratives in annual reports to be investigated "to better understand the motives and attitudes of management and the communication process" [Jones and Shoemaker, 1994, p. 174], and, more generally, with polemics in recent accounting literature encouraging "greater use of narratives in accounting and management research" [Llewellyn, 1999, p. 233].

The particular Disney stockholders' letter we analyze deserves special study for three additional reasons:

• First, it is the initial stockholders' letter of the Disney Company, a corporation that today has global importance in the entertainment and communications industries.

• Second, the letter was a public and permanent document signed and most likely substantially crafted by Walt Disney (perhaps with contributions from his brother Roy).1 Thus, it has potential to provide insight to Disney's public persona at the time and seems likely to add to historical understanding of this acknowledgedly charismatic, yet complex business and cultural leader [Boje, 1995; Bryman, 1995]. We cannot say with certainty (nor can anyone we expect) that Walt Disney physically drafted

1Attributing authorship unequivocally to Walt Disney solely or substantially is difficult if not impossible. While acknowledging this lack of strong, unequivocal proof of authorship, we take some solace that it is the "metaphoric Walt," as mentioned in the next footnote, that may be of sustaining importance. As Schickel [1968/1997, p. 44] wrote: "In the last analysis, Walt Disney's greatest creation was Walt Disney." There is no doubt that the "metaphoric Walt" signed and is accountable for the letter.
the 1940 stockholders' letter. However, in view of his reputation for keeping "a sharp eye on financial arrangements" [Capodagli and Jackson, 1998, p. 185], his multi-skilling philosophy, his acute awareness of the "bottom line," and his obsession with careful attention to small detail [Capodagli and Jackson, 1998, pp. 7, 181-185], it seems likely that he was strongly implicated. Watts [1997, p. 260], a Walt Disney biographer, referred to "Walt's comments" in his brief reference to the company's annual reports of the 1940s. In addition, Schickel's [1968/97, p. 256] detailed descriptions supporting Walt Disney's dominant role and "father figure" persona in regard to his company, provided strong, albeit circumstantial, evidence that Disney had at least some significant hand in the letter's crafting.

*Third, since stockholders' letters in recent Disney annual reports make explicit, favorable reference to "Walt" [Amernic, 1998], a "metaphoric Walt" may influence current-day Disney CEOs.2

The paper proceeds as follows. The next section provides context for the letter and its analysis. The third section examines rhetorical qualities of the letter, except for metaphor, which is analyzed in section four. A final section contains concluding comments.

CONTEXTUALIZING THE DISNEY STOCKHOLDERS' LETTER

The Stock Issue—Features, Reasons, Consequences: In 1940, Walt Disney Productions, as the company was then known, was a relatively small film production studio in terms of financial and tangible assets, but not in terms of reputation, expectations, and innovation. It had just gone public by issuing 155,000 shares of $25 par value, 6% cumulative, convertible preferred stock (see Exhibit 1). As a consequence, the Disney brothers' company became publicly accountable. Its first annual report, for the fiscal year ended September 28, 1940, was issued in December 1940. That report is the focus of this paper. Of particular interest is the letter to stockholders, a text not only proffered to the public domain but also personally associated with the company's chief executive. The letter to stockholders was signed by Walt Disney and was included as the first main component of the report.

2A reviewer has drawn attention to the prospect that a "metaphoric Walt" helps provide flexibility in justifying present business practices of the Disney corporation. He could be used in much the same way as Sam Walton might be used as an ongoing mythic figure at Wal-Mart Inc.
EXHIBIT 1
Selected Financial and Other Information About
Walt Disney Productions in 1940

| Reported net income or loss for fiscal year ended September 28, 1940* | A loss of $1,259,798 |
| Total assets reported on balance sheet as of September 28, 1940* | $8,562,137, of which $4,926,557 represented costs associated with feature films and short subjects (in other words, "soft" assets) |
| Stockholders equity reported on balance sheet as of September 28, 1940* | $5,787,646 |
| Number of employees* | 1,179 (as of September 28, 1940) |
| Number of feature animated films released in fiscal 1940* | one (Pinocchio) |
| Total reported production costs for feature animated films released in 1940* | $2,595,380 |
| Number of shorts ("cartoons") released in fiscal 1940* | ten |
| Average production costs for a cartoon released in 1940* | $225.48 |

*from 1940 annual report.

Disney was prompted to raise capital from the public, according to the New York Times [February 22, 1940, p. 35, col. 7], by an immediate need to provide permanent capital for the company’s huge expansion program then nearing completion—a $3 million, 51-acre studio complex in Burbank, California. In 1940, Time magazine [March 25, 1940, p. 77] put it thus:

"Last week, with its second full-length feature, Pinocchio, ready for a nation-wide Easter week opening, Walt Disney productions applied to the SEC for permission to sell 155,000 shares of $25 par, 6% cumulative convertible preferred stock. Purpose of the $3,875,000 offering: to pay off bank loans incurred in building the company’s new studio at Burbank, Calif., and to provide working capital for four more features now in production: Bambi, Wind in the Willows, Peter Pan, Fantasia."

Disney had a long history of reinvesting profits from his animated films and other revenue sources. He did so to meet ever-rising production costs and to help ensure even better films in the future [Hollister, 1940]. As early as 1934, Fortune magazine [1934, p. 91] described Disney as reinvesting profits “for the sole purpose of making his films more beautiful, more elaborate, more
nearly perfect.” But, by early 1940, earnings had taken an unexpected battering for three principal reasons: the lukewarm box office response to Pinocchio, Disney’s difficulties in containing costs, and the effects of the European war.

Bryman [1995, pp. 9-10] summarized the position confronting Disney:

Largely as a result of Snow White’s success [released on December 21, 1937], Walt realized that feature film production had to become the Studio’s main focus, and soon afterwards work began on Pinocchio, Fantasia, and Bambi. In order to accomplish this level of production effort...the [Disney] brothers decided to build a new studio. In the summer of 1938, they placed a deposit for a new purpose-built studio in Burbank. In effect, the new studio building would consume the bulk of the profits from Snow White. The move was completed in May 1940, by which time the studio had about 1,100 employees. The Studio’s financial position began to deteriorate [in 1939]. Both Fantasia and Pinocchio performed poorly at the box office and produced sizeable losses, the former especially so, since they had proved very costly to produce. Also, Disney’s European market had all but dried up as a result of the war...the Studio was heavily in debt and was forced to issue [preferred stock] shares to the public in April 1940, a move to which the brothers had always been opposed (emphasis added).

The reasons for the preferred stock issue merit some elaboration. While the audiences responded very positively to Snow White (“The $1,500,000 borrowed to make Snow White was repaid within three months...” [Hollister, 1940, p. 700]), there was always the risk that after the initial successes, the movie-going public would consider such films just a fad and would quickly lose interest. Disney’s next animated feature, Pinocchio, released in 1940, fared poorly. It was a challenge to create and produce full-length, animated films involving cartoon characters that audiences would pay to see. The market for feature films of this type was new and unproven.

Additionally, Disney was struggling to maintain profitability in an environment characterized by a rapidly changing technology in animation and movie making. He was confronted by market uncertainty and considerable production risks posed by the chal-
lenges of new technology (i.e., coping with the special sound equipment requirements for *Fantasia*). It was a challenge as well to maintain control over costs while at the same time striving for better quality ("The average pay is higher than the average in any other Hollywood studio" [Hollister, 1940, p. 700]). In a sense, his problem was similar to that now confronting computer hardware and software companies.

The European war\(^3\) also had a major impact on the studio by limiting the company's ability to release pictures in any of the countries at war. This constrained the market for basic cartoon shorts and, even more importantly, for new features. Given the technological and cost-control risks associated with new, full-length, animated films, losing the potential to spread some of the market-acceptance risk was a serious blow — audiences in foreign markets might have resulted in a future stream of revenues even if the domestic market eventually regarded these films as mere fads. Furthermore, currency regulations, as well as fluctuations in foreign exchange rates, reduced the company's revenues from pictures already released in foreign countries. And even domestic cinema goers might be less inclined to spend their disposable income on going to the theater, given the prospect of U.S. involvement in the war.

So, at the time Walt Disney signed the 1940 letter to stockholders, Walt Disney Productions was in a precarious position. It had to learn to master new technology. It had a product with a potentially vast market, but that market was largely unproven in the longer term. The European war was beginning to have an impact and seemed destined to create further havoc with film distribution and markets, both worldwide and domestically. The intimate control exercised by Disney over every facet of the business\(^4\) was being strained by rapid expansion and the challenges mentioned above, as well as by the need to raise funds through a public stock offering. Schickel [1968/1997, pp. 49, 247] described Disney's attitude within the context of this difficult time in the following way:

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\(^3\) Although it had provided significant support to Britain and its allies, the U.S. did not enter World War II until after the Japanese attack on Pearl Harbor, December 7, 1941.

\(^4\) According to Hollister [1940, p. 700]: "Walt is the spark plug of production. No story starts toward a picture until Walt has bought or invented it, shaped it, tried it out, and given it a push...Throughout the production pattern of every picture Walt threads in and out like a guiding outline...Walt knifes into the most minute step of the most microscopic element..."
...The precariousness of the family’s livelihood undoubtedly shaped his own desire not merely to succeed but to do so in a particular way—namely, to avoid surrendering any part of his autonomy to outsiders and to hold his company’s stock and its decision-making power as closely as he could.

...Indeed, in 1938 he had every reason to believe that he could afford a money-losing experiment [that is, *Fantasia*]. But with *Pinocchio* unable to perform as expected abroad and with the potentially profitable but difficult *Bambi* put aside in order to devote full effort to *Fantasia*, he was suddenly in perilous straights. Far more than should have depended on *Fantasia*.

And the situation worsened even as the film approached completion. Early in 1940 the banks shut down the Disney credit line entirely, and in order to raise operating capital he was forced in April, 1940, to offer stock to the public for the first time—a step he feared would mean dilution of his control over the enterprise...it was a psychological blow that was perhaps harder for him to take than it would have been for other men.

To exacerbate matters, the company had incurred a significant loss in 1940 (see Exhibit 1). Thus, it was an opportune time for Walt Disney to display the charismatic leadership for which he became famous. The thesis of this article is that he did so partly through skillful rhetoric employed in the 1940 letter to stockholders. To contextualize further the circumstances leading to the stock issue and the environmental circumstances in which Disney’s letter to stockholders was composed, it is important to develop a better understanding of the history of the Disney company and the persona of Walt Disney, subjects to which we now turn.

*Company History:* In 1924, Walter Elias Disney, a 23-year-old cartoonist, opened a small animation studio in a storefront in Los Angeles with his older brother Roy. The business was known as the “Disney Bros. Studio,” but when it moved into new premises near downtown Los Angeles in 1926, it became the “Walt Disney Studio.” Disney’s early ventures endured hardships typical of
many business startups.\footnote{Problems included decreasing profit margins on their products (cartoons) as they endeavored to make technical improvements to satisfy their market, as well as hardball tactics by their financial backers (who lured away several of Disney's animators). The material for this and several following paragraphs draws upon Bryman [1995], unless otherwise noted.} Walt Disney went bankrupt before his move from Kansas City to Los Angeles and his subsequent initial success in the late 1920s. He is reported to have said: “When I was 21, I went broke for the first time. I slept in chair cushions in my studio in Kansas City, and ate cold beans out of the can” [Boje, 1995, p. 1024].

The company achieved its first major success when its animated cartoon, *Steamboat Willie*, featuring the new *Mickey Mouse* character, was shown at the Colony Theater in New York on November 18, 1928. Although the company’s cartoons were very popular, by the early 1930s the Walt Disney Studio was struggling to survive since, among other problems, animation costs continued to rise. But its fortunes were soon to improve. Lucrative merchandising agreements were negotiated, granting permission for images of Disney characters, such as *Mickey Mouse*, to be used on manufactured items.\footnote{‘The New Internationalist [1998], the Walt Disney Company 1997 Fact Book, and de Cordova [1994] are drawn upon to disclose that, “In 1930 the first international licensing contract for the sale of Mickey Mouse merchandise was signed...[and that]...the first Mickey Mouse watch was sold by Ingersoll Watch Company in June, 1933” [New Internationalist, 1998, p. 19].} With the release of the company’s first feature animated film, *Snow White*, merchandising agreements were at the forefront of what was called “a new dimension in fashion merchandising” [Bristol, 1938, p. 13]. The introduction of color to improve cartoon quality led to an Academy Award and commercial success for the studio’s first color cartoon, *Flowers and Trees*. Other innovations in animation, such as providing cartoon characters with unique, focused personalities (as in *The Three Little Pigs* and for characters such as Pluto, Donald Duck, and Goofy) appealed to Depression-era audiences.

\footnote{Disney’s approach to licensing his animated characters for commercial exploitation was highly successful very quickly: “...in 1932 sales of Disney character articles had totaled $300,000, in 1937 they were $35,000,000” [Bristol, 1938, p. 15]. That success has become institutionalized; in modern times there is a well established and curiously seamless fusion of cinematic art with consumerism: “Every Disney animated film comes bundled with a complete marketing strategy for merchandise, interactive games and a line of children’s books” [New Internationalist, 1998, p. 28].}
By 1934, the company employed 187 staff. Walt Disney decided to expand into the feature film business since "it was becoming increasingly difficult to combine the growing costs of animation... with the inherently limited returns that could accrue from shorts" [Bryman, 1995, p. 9]. The company's first feature-length animation movie, *Snow White and the Seven Dwarfs*, which opened on December 21, 1937, was a great success, at first critically and then commercially. The company began other animated features (*Pinocchio*, *Fantasia*, and *Bambi*), while continuing to produce cartoon shorts. It soon outgrew its studio facilities. Plans for a new, custom-designed studio were hatched in the summer of 1938, and the company, now with about 1,100 employees and called "Walt Disney Productions," moved into its new studio in May 1940. The decision to focus much of the company's efforts on very expensive but potentially very profitable feature animated films, as well as the related need for new production facilities, prompted the company to raise funds from the public through a preferred stock issue in April 1940. It subsequently released its first published annual report in December of that year.

Disney Persona: By 1940, Walt Disney was acclaimed widely as an international success. Indeed, even by the early 1930s, Disney had reached a position of eminence that matched the greatest of Hollywood stars. His admirers included Italian conductor Toscanini and Russian film director Eisenstein, among a glittering array of adoring fans [Costantino, 1991, p. 12]. Disney's *Mickey Mouse* character became "a national figure, an international attraction, and finally a cultural totem" [Garraty and Carnes, 1988, p. 130]. Critics from New York to Leningrad were said to "gravely laud him" [Fortune, 1934, p. 89]. In 1934, his comedies were exhibited in 88 countries, and he was said to be "an international hero, better known than Roosevelt or Hitler, a part of the folklore of the world" (p. 89). Watts [1997, p. 124] described the cultural influence of Disney in the 1930s in the following way:

*One wonders whether modern-day audiences would have been so receptive to a female hero who was "young, virginal, pretty, sweet-natured and obedient" and unfazed by domestic drudgery through absolute belief that "a handsome owning-class chap [would], someday soon, come and save her" [Maio, 1998, p. 12].

*All references in this section are taken from Fortune [1934], unless otherwise indicated.
Universities...provided reinforcement for the notion of Disney animation as art. In 1933, the College Art Association helped arrange an exhibition of Disney drawings in New York. Five years later, Harvard, Yale, and the University of Southern California granted honorary degrees to Walt Disney...

The lengthy and major profile of Disney and his film-making operations in *Fortune* magazine in 1934 portrayed him as a mythmaker. His products were said to enthrall audiences throughout the world by bringing them to a “delicate balance between fantasy and fact, poetry and comic reality.” They were said to appeal to the simplest emotions and to give pleasure. They had “plasticity”—nothing in a Disney film was impossible (p. 88). The themes of his cartoons were such that “courage overcomes wickedness and fear; industry triumphs over dalliance; false ambition gives way to resignation” (p. 88). In sum, they were short morality plays. They were the epitome also of what has become known as “disneyfication”—“sanitized, safe, entertaining and predictable” entertainment [Ellwood, 1998, p. 8].

Disney has been described as a moody, deliberately “ordinary,” informal man who, although having “rural gusto and naïve fancy” (p. 90), nonetheless had an imagination renowned for its fantastic quality (p. 146). He was a stickler for high artistic standards; he made daring and innovative use of music, sound, and folk material; and he was reported to “mistrust the shoddiness and hypocrisy of the pseudo-artist” (p. 146). His personality was said to have been shaped by “a nostalgic yearning for romance or simple values” and to have been affected by a “frugal, authoritarian and moralistic” father [New Internationalist, 1998, p. 8].

But as Boje [1995] has argued, Disney had a “darker side.” The *Dictionary of American Biography* claimed that Disney became “self-satisfied, intractable, arrogant” and was “probably never the quite generous father of a gifted flock that he seemed on the surface” [Garraty and Carnes, 1988, p. 131]. “The discerning eye,” it was said, could find in his programs “breaches of taste, philistine wisecracks, a milking of the nostalgic mood, slipshod cultural references, a growing dependence on received folklore and other people’s classics, and an increasingly slick technical achievement of rather tawdry effects” [Garrety and Carnes, 1988, p. 131]. His character *Mickey Mouse* was said to have been flawed by a streak of sadism, and the film *Fantasia* was adjudged by some as a “pre-
tentious hodgepodge." He was alleged to be "both paternalistic and domineering...he brooked no dissent, rewarding loyalists with favors and punishing dissidents" [New Internationalist, 1998, p. 8].

RHETORICAL QUALITIES OF THE 1940 LETTER TO STOCKHOLDERS

The Writer: In 1940, Walt Disney was not just another ordinary corporate CEO writing a stockholders' letter for the first annual report of a relatively small, new public company. As we have shown above, he was a cultural sensation. He had been written about rather extensively in the 1930s in major national publications such as Fortune, New Yorker, American Magazine, Scribner's, New York Times Magazine, Time, etc. [Bryman, 1995]. He was also someone who guarded with zeal his prerogatives to lead and to control the results of his genius [Hollister, 1940]. As Bryman [1995, p. 10] claimed, he was "forced" to issue shares because of the company's debt. How might a cultural icon, whose creative genius had long been publicly acknowledged, contemplate the writing of a stockholders' letter as part of a compelled accountability flowing from the apparently unwanted, but financially necessary, public offering? This question is important in a rhetorical sense since "the speaker's life, insofar as it is public, forms a long prelude to his speech" [Perelman and Olbrechts-Tyteca, 1958, p. 320].

The Audience: Modern annual reports, including the stockholders' letter, often have many audiences with diverse and partly conflicting interests. These audiences include current and potential stockholders and debt holders, financial intermediaries, employees, unions, competitors and the public-at-large, among others. While it seems reasonable to surmise that Disney's 1940 letter was an important part of financial reporting intended for similar diverse constituencies, perhaps the first among equals was the new group of preferred stockholders. Disney was in a somewhat invidious position for he had just been provided a financial lifeline to sustain his company. He was confronted with the problem of crafting a document mainly intended for the company's new preferred stockholders. He needed to be alert to the potential they had to constrain his ownership and his pursuit of all things associated with his icon status. He would need to acknowledge the various operating and market difficulties the company had faced and
the difficulties it might face in the future. Additionally, he would have to explain effectively how top management (that is, the Disney brothers) was firmly in control and leading the company towards future success. In clear and compelling terms, he would need to analyze the company's performance and prospects so as to encourage strong and unwavering adherence to Disney's leadership of the newly public company. His letter would have to serve as a public vehicle for sense making [Weick 1995, p. 13] by preferred stockholders and others interested in the company, including himself and his brother.

Rhetorical Characteristics of the Initial Substantive Section: The 1940 "Letter to Stockholders" is reproduced in Appendix 1. Its second section, following immediately after the warm but respectful welcome, is headed "NEW STUDIO." It is reproduced below with each sentence labeled for reference:

<table>
<thead>
<tr>
<th>NEW STUDIO</th>
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<tbody>
<tr>
<td><strong>[Sentence 1]</strong> At the time of the sale of the 6% Cumulative Preferred Stock, the Company was constructing and equipping its new studio.</td>
</tr>
<tr>
<td><strong>[Sentence 2]</strong> This studio was substantially completed and equipped and virtually all of the Company's production operations were transferred thereto by the end of May, 1940. <strong>[Sentence 3]</strong> As a result of the increased facilities, the Company has been able to augment its production of completed footage by more than 100% and has succeeded in lowering the cost of production per foot substantially. <strong>[Sentence 4]</strong> Therefore, the Company will be able to carry out its new policy of releasing two or more feature subjects each year as well as a large number of short subjects. <strong>[Sentence 5]</strong> As a result of the reduction in costs, short subjects are now being produced at a figure which the management believes will result in profitable releases even though sources of income in certain foreign countries now at war are no longer available.</td>
</tr>
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Sentence 1 links the preferred stock issue (that is, the resources
provided by the "Stockholders" to whom the entire letter is addressed) with the positive, forceful activities of "constructing and equipping." While the "ing" endings are a weak example of rhetorical use of repetition (homoioteleuton), the effect is made rhetorically stronger by culminating in the fulfillment of a major task ("completed," "transferred," "succeeded"). This is an extremely positive section of the letter, with good use of forceful action words and a strong sense of direction. Indeed, Sentence 4 beginning "Therefore, the Company will be able to carry out its new policy..." assures that promises will be kept and that the company has a logical, rational plan unfolding as it should. It establishes the following close, sequential linkage:

New financial resources from preferred stock issue

↓

New, larger studio

↓

Increased capacity and efficiency

↓

Lower unit costs

↓

Increase in number of features released and short subjects

↓

Expected profits

This piling-up of arguments in support of expected profits, rhetorically a sort of diallage, which Lanham [1991, p. 51] explained as "bringing several arguments to establish a single point," creates a sense of moving forward with an active, in-control management in charge.\(^\text{10}\)

\(^{10}\)Within this piling-up of arguments are other rhetorical devices. First, repetition of the phrase "As a result of" at the start of sentence three and sentence five interlaces two references to cost reduction. Such phrasal repetition verges on anaphora, whereby the same words "are repeated at the beginning of successive clauses..." [Lanham, 1991, p. 11]. Second, the use of action-oriented, decisive words and phrases such as "At the time of the sale;" "was constructing;" "was substantially completed;" "were transferred;" "As a result of;" "has succeeded;" "Therefore;" "will be able;" "now being produced;" and "will result in" is the textual equivalent of epitrochasmus; that is, "a swift movement from one statement to the next; rapid touching on many different points" [Lanham, 1991, p. 70].
There is also a short, almost completely self-contained, five-sentence, morality-tale narrative of the American success story in this passage. It seems fitting that Disney the storyteller would incorporate narrative into his CEO discourse in the stockholders’ letter. After all, if important external constituencies, and internal ones as well, buy into top management’s strategic narrative, such discourse has certainly served its purpose [Barry and Elmes, 1997]. The uncertainty associated with the business is incorporated subtly, almost unobtrusively, by the use of words “substantially” and “believes” and the rather soft introduction of the threat to “sources of income in certain foreign countries now at war.”

The story narrated in this passage seems almost as fictional as a Disney cartoon, thereby making the rhetorical quality of the section more interesting. The company had borrowed considerably to establish its new facilities and expand its work force. It had done so believing that more lucrative opportunities would flow from animated features rather than from short subjects. But cost control problems, some market resistance, and the European war had intervened. This had compelled the Disney brothers to do something they did not want to do — issue preferred stock to reduce part of the debt and provide them with some liquid funds. Given these events, it is contestable whether Disney was in control of his company to the extent that might be demanded. Thus, his use of rhetoric was adept and skillful impression management, directed to portraying what was arguably a mirage; that is, of Disney being decisive and in control of all dimensions of his company’s affairs [Salancik and Meindl, 1984].

“EFFECTS OF THE WAR” and “PRODUCT”: The contrast between the second and third sections is dramatic. While the second section was upbeat and optimistic, there unfolds in the third section a series of negative news about the impact of the war, again characteristic of diallage. The first sentence of this section [“The effect of the war in Europe upon the affairs of your Company has been serious and the full measure thereof cannot yet be determined” (emphasis added)], stands in stark contrast to the previous section’s final sentence in which the war was blamed almost as an afterthought for making “sources of income in certain foreign countries” “no longer available.” Why the sharp, sudden alteration in message? Perhaps it had to do with Walt Disney’s problems as a leader and an entrepreneur in 1940. He had an unpalatable story to tell in his company’s first public annual report, especially about the almost catastrophic problems with Pinocchio. According to
the 1940 annual report, $1 million of the $2.6 million cost of producing this animated feature was written off during the year because of the combined effects of market conditions and the excessive costs. (See Appendix 1 under the heading “PINOCCHIO.”) Thus, first serving up some bad news about the impact of the war, the effect of which had already been marginalized to some degree at the end of the previous section, might be seen as a skillful use of “order” as a rhetorical device.

But the rhetoric is even more skillful and subtle. Disney refers to “the” Company on 44 occasions in the letter. Only once, and in this section, does he refer to “your” Company. In doing so, he heightens the emphatic effect, helping to steer home the implications of the bad news to shareholders. His tone, for whatever reason, is almost accusatory, as if the shareholders were answerable for the bad news.

The letter begins with very good news about increasing production, reducing costs, and anticipating profits. These successes were due to factors presumably controllable by management. The next section describes the potential impact of the war in very general terms — the war being, of course, beyond the control of management. The following section, headed “PRODUCT,” describes the even more sombre news about *Pinocchio* and the possible bad news about *Fantasia*. The bad news about *Pinocchio* is first reported as due to “the conditions prevailing throughout the world” (see subsection headed “PINOCCHIO”), in other words, beyond management’s control. Despite this, later in the same subsection, the letter mentions the company’s growth (“the transition period through which the Company passed when it changed its policy of making one feature in two years...to a policy of producing from two to four features a year...”) and the “discarded work of untrained personnel,” “the schooling and training of personnel,” and “inadequate plant facilities” before moving into the new studio.

The portion of the third section devoted to *Fantasia* reminds the reader that the company is an innovator, and that innovation sometimes requires changing strategies and profit expectations. The remainder of the fourth section provides a barrage of upbeat news about new animated features, cartoons in process, and other sources of revenue.

_Disney’s Rhetorical Use of Accounting:_ Aho [1985] and Carruthers and Espeland [1991] have argued that accounting is powerfully...
rhetorical. Disney displayed an innate understanding of this feature of accounting in his stockholders' letter. Under the heading "GENERAL," Disney attacks the strictures of accounting convention by invoking a statement made in the company's formal, legal prospectus inviting subscriptions in the preferred stock issue. The portion of the section reads as follows (sentences are numbered for reference purposes):

[Sentence 1] In considering the profit and loss statement of the Company, it is worthwhile to repeat the following statement made in the prospectus offering the 6% Convertible Preferred Stock:

[Sentence 2] "The Company's principal income accrues according to the rapidity with which its features are exhibited in theatres and, accordingly, the relationship between dates of release and dates of accounting periods has in the past produced and will probably continue in the future to produce wide variations in earnings as they may from time to time be reported. [Sentence 3] This is made more pronounced by a program which contemplates the release of only one or two features per year. [Sentence 4] In connection with SNOW WHITE AND THE SEVEN DWARFS, the Company adopted a policy of writing off the entire cost of the picture against the first revenues received, and the Company may in the future follow this policy with respect to all of its feature productions. [Sentence 5] Consequently, if any given accounting period closes at a time when revenues have failed to exceed the costs incurred in connection with the production of a feature released during such period, it is possible that a loss may be reported in such period notwithstanding the fact that an actual profit may eventually be realized on such feature."

In Sentence 1, Disney invokes the authority of the prospectus, a legal document that had been approved by the California authorities. This appeal to authority, or apomnemonysis [Lanham, 1991, p. 191], gives added weight to the text. Such a rhetorical move is quite consistent with the central role that appeal to authority, often embodied in GAAP, serves in modern accounting. The
prospectus excerpt is cited in sentences 2, 3, and 4 to tell of the company's virtuous accounting by which the entire cost of animated features is written off against the first revenues received, a conservative accounting policy, at least in the short run. In sentence 5, the excerpt suggests strongly that resulting accounting losses are an artifact of the interplay between this conservative accounting policy and the arbitrariness of the relationship between accounting periods and revenues. In effect, Disney signals to the letter's readers the company's sobriety of purpose by using a conservative method of accounting.\footnote{Indeed, the financial statement footnotes in the 1940 annual report reveal the method of accounting to be conservative twice over. Not only were profits on an animated feature not admitted to the company's accounting system until all of a feature's costs of production had been recovered, but Disney did not account for any revenues at all until cash was received from a film's distributor.} But he then draws upon this excerpt from the preferred stock prospectus to urge readers not to take the resultant accounting too seriously. Rhetorically, he seems to want to have it both ways; e.g., conservative accounting shows evidence of the social virtue of conservatism, but accounting itself can be relied upon only to an extent. Can he have it both ways?\footnote{A reviewer raised this dual nature of accounting argument in the stockholders' letter.} Can Disney both draw upon the authority of accounting to influence readers and almost at the same time plead the arbitrariness of certain accounting conventions, such as the accounting period convention? Accounting is such a rhetorically serviceable and elastic mode of representation and argument that it is not surprising that Disney, the creative storyteller, employs it thus.

However, the conservative method of revenue recognition chosen by Disney had a decidedly unconservative side as well. Feature animated films whose costs had been fully recovered could be taken off the shelf and distributed again with 100\% of the producer's revenues during these re-releases going directly to the company's before-tax profits. This happened with \textit{Snow White} in 1940—that year's income statement in the annual report included revenues of $103,526 from the reissue of \textit{Snow White}, but revealed no costs in 1940 since all production costs for the picture had been recovered in previous years. So the conservative accounting used by Disney had a temporal dimension—very conservative in early years in which feature film production activity was high and unconservative once such features were completed.
and went into re-release. Since 1940 was one of these “early years,” this unconservative side remained unobtrusive during the crucial year of 1940.

In the 1941 stockholders' letter, Walt Disney demonstrated further his rhetorical capability to use accounting strategically. He constructed, or more likely had his accountants construct, a detailed accounting comparison between the company's 1941 and its 1940 results. He included this comparison near the beginning of the 1941 letter (see Appendix 2). He was using accounting information to show that in spite of a reported loss of $789,297 in 1941, many features highlighted in this artfully constructed comparison suggested strongly that great progress had been made in 1941 as compared with 1940. Constructing such an unusual accounting schedule and placing it near the front of his stockholders' letter, where it more or less dominated and conditioned perceptions of the rest of the letter and perhaps the rest of the entire 1941 annual report, was a skillful rhetorical move. The authority of the accounting information used, drawn from the audited financial statements, was *apomnemonysis* combined with "order" in persuasive harmony.

The "Summary of the Balance Sheet and Income Statement," presented in the 1941 Stockholders' Letter, seems skillful rhetorically in another sense as well. It presented a gross mass of numbers across 3 x 8 digit columns, 26 rows long. Clearly, the notions of accounting materiality and "rounding" had not been embraced by Disney or his accounting advisors, as the financial data were presented to the precise dollar and cent. Although this may have reflected Disney's reputation for "attention to detail," it may also have been a rhetorical ploy. This so-called "Summary" was a visual onslaught likely to test, and find wanting, all but the most determined, accounting-trained readers. Perhaps it was a visual metaphor used as a rhetorical device, a way for Disney to vent his frustration with the complexity and confounding nature of accounting methods and practices. For such a skillful graphic artist, one who was renowned for the most beautiful of screen images, the "Financial Summary" was out of character. Whereas Disney was a creative graphic artist, adept at fashioning compelling and beautiful screen images, when it came to conscripting something as mundane as accounting data to craft the (financial) story he wished to tell, the end result was metaphorically a barrage of numbers bereft of aesthetic appeal, but perhaps a classic rhetoric move. More simply however, this could have merely been brother Roy's influence.
The Rhetoric of an Accountability Document: It is not surprising to find that the 1940 letter to stockholders was well constructed rhetorically. After all, Walt Disney had by this time a universal reputation as a master storyteller. So why would he not use this talent in telling his company's financial story during a period of crisis in a way that might be expected to garner positive reaction from his audience? Financial reporting, in both its qualitative and quantitative aspects, is like all text, and discourse generally, unavoidably rhetorical. Disney was as skilled at giving a financial account as he was at giving an account of Mickey's latest adventure. Understanding the inherent rhetorical nature of such discourse is important to understanding the role such discourse plays in accountability.

Indeed, in any accountability document (such as a set of audited financial statements, a stockholders' letter, a variance report, a corporate press release), there is a vast array of rhetorical choices available which the author might apply with greater or lesser degrees of awareness. Such choices, made even subconsciously by the author, influence the perceptions of the audience. Our analysis of some rhetoric features of Disney's letter has merely touched the surface of possibilities; for example, we might have explored more deeply the argument schemes apparent in the letter [Warnick and Kline, 1992], examined ways in which the letter dealt rhetorically with its composite audiences [Myers, 1999], analyzed text structure, and metadiscourse [Hyland, 1998], etc. Having established, we submit, that the letter was crafted skillfully in a rhetorical sense, we now focus our attention on the nexus between rhetoric and ideology. We read Disney's letter with metaphor uppermost in mind since it is largely through metaphor that we might begin to understand a text's "ideological agenda that is apt to be hidden from view" [Postman, 1993, p. 124].

METAPHOR IN THE 1940 LETTER

Metaphor is a central aspect of rhetoric. Among recent contributors to the extensive literature on metaphor, Eubanks [1999, p. 195] has made a case that:

...metaphor is rhetorically constituted. No metaphor is spoken or written except in the context of a sociohistorically bound communicative situation. Therefore, all metaphors are inflected by politics, economics, philosophy, social interests,
professional commitments, and personal attitudes — in short by the whole of our cultural and conceptual repertoire. Because metaphors are inflected, we cannot explain how they work unless we consider concrete instances of metaphor, taking into account how inflections constrain the way metaphors are uttered and understood.

Eubanks asserted that metaphors are "fundamentally responsive," and thus cannot be understood by themselves (i.e., "atomized"), but rather only in relation to "metaphoric and literal concepts that are already in motion within a culture's (or subculture's) discourse." As a consequence:

Because metaphors are concretely responsive and because competent speakers and writers are aware, consciously and unconsciously, of the interplay of metaphors and concepts, the utterance of a metaphor carries rhetorical benefits or costs...Speakers and writers build consensus and risk rhetorical capital when selecting and reenvoicing metaphors. However, they manage that risk complexly by claiming, ascribing, and shifting the metaphors they utter [Eubanks, 1999, pp. 195-196].

Metaphor theory has a long, rich, and unsettled history. Some contend that metaphor is simply flowery but unnecessary. But many scholars would agree with Postman [1996, p. 174] that "a metaphor is not an ornament. It is an organ of perception." Others suggest intriguingly that thought itself is fundamentally metaphorical [Gibbs, 1994], and that metaphorical language is merely the surface manifestation of an underlying cognitive mapping between two domains—a target domain and a source domain [Lakoff and Johnson, 1980; Lakoff, 1993]. Considerable persuasive evidence, much of it summarized by Gibbs [1994], provides support for the view that metaphor is basic to thought, and that there are systematic relationships among metaphorical structures. For example, Lakoff [1993, pp. 222-224] wrote about a metaphorical mapping hierarchy whose highest level is the fundamental "event structure" metaphor.

Scholars in a wide variety of fields have taken up the seriousness of metaphor. Harrington [1995] argued persuasively that German race ideology was made more virulent through
metaphoric processes; Dunn [1990] showed how the "root metaphor" of the new industrial relations has facilitated the erection of a new industrial relations paradigm; Miller and Fredericks [1990] argued that metaphors used in a major educational policy document revealed a particular ideological predisposition that foreclosed alternative recommendations; Daughton [1993] claimed that Franklin Delano Roosevelt's use of metaphor of a holy war contributed to the immediate impact and enduring influence of his first inaugural speech; and Postman [1996, p. 174] pleaded rhetorically and, of course, metaphorically to educators by asking: "Do I exaggerate in saying that a student cannot understand what a subject is about without some understanding of the metaphors that are its foundation?"

We suggest that the metaphor, "the company is a sentient being on a purposeful journey traversing an at-times hostile environment," permeates the 1940 Disney stockholders' letter, and that this metaphor is consistent with the fundamental and pervasive event-structure metaphor hierarchy described by Lakoff [1993]. Evidence supporting this contention includes the following metaphoric language from the section headed "NEW STUDIO": (1) "...the Company was constructing and equipping its new studio," (2) "...the Company's production operations...," (3) "...the Company has been able to augment its production...," (4) "...the Company will be able to carry out its new policy...." These may be argued to be instances of verbal reification, but they are also instances of attributing sentience and purposiveness to the Company. Such ways of talking and writing about companies are commonplace, and it is perhaps because they are commonplace that they are rhetorically important.

There are numerous other instances of reification of the company as an active agent that has commercial "affairs" (e.g., "EFFECT OF THE WAR": "The effect of the war in Europe upon the affairs of your Company..."); that takes action (e.g., "PRODUCT": "...the Company delivered to RKO Radio Pictures, Inc."); that enjoys benefits (e.g., "PINOCCHIO": "...there have accrued to the credit of the Company..."); that creates saleable names and characters (e.g., "SHORT SUBJECTS"); that has expectations about the future (e.g., "GENERAL": "...the Company expects to have three new feature pictures in general release..."), etc. Perhaps the most important language manifestation of this metaphor is under the heading "PINOCCHIO" in which Disney writes: "...the transition period through which the Company passed when it changed its policy of
making one feature in two years...to a policy of producing from two to four features a year." Here, we have a company that not only pursues the sentient activity of changing a policy, but also has to endure passage through a transition period on its journey.

An obvious objection to this analysis might be that these are merely words, and besides, many managers talk and write about their company in similar ways. But that is the point; "managers work with words" [Jonsson, 1998, p. 411]. The modern theory of metaphor suggests strongly that words matter because they influence the way those uttering those words think and act.

Calling a company "a sentient being on a purposeful journey traversing an at-times hostile environment" has several implications and entailments. The company, a sentient being, knows best through its means of cognition and decision making (i.e., its leadership) about its goals and how to achieve them; about which path through the at-times hostile environment to take; and how to adapt when circumstances change. Therefore, acknowledging the interests of other stakeholders is limited and perhaps utilitarian. These other stakeholders are not part of the being itself (i.e., the company) unless they submit to the authority of the company as a sentient being—a strongly managerialist view. Further, any obstacles in the path are adversaries and goals are non-negotiable. To see the consistency of these ideas in Disney's managerial discourse, we take a brief look at the 1941 stockholders' letter (see Appendix 2).

In the section "LABOR RELATIONS" in the 1941 stockholders' letter, Disney describes the company's journey as "beset by labor troubles" and ventures the observation that this obstacle to purposeful travel has occurred in 1941 "[f]or the first time in its history." This section describes Disney's view of the famous 1941 strike, a view in sharp contrast to Disney's hostile, and perhaps at

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13A reviewer, rightly in our view, proffered objections to a version of this metaphor which we called "the company is a sentient being on a purposeful journey" as follows: "Could there be an explanation that is a little less grand? Basic company law tells us that limited liability companies enjoy separate legal form. It could simply be that what is seen here is a playing out of that, with the company being accorded its own identity in the text as a consequence of this commonplace usage..." While undoubtedly this is true, a reader of Disney's stockholders' letter would be prudent not to ignore the strong, pervasive strain of Midwestern independence that several scholars have attributed to Walt Disney [Bryman, 1995; Schickel, 1968/1997; Watts, 1997] and which seems to have conditioned greatly his conception and attitudes towards his company, the product of his creative, emotional, and physical labors.
times illegal, anti-union activity summarized in Boje [1995], Schickel [1968/1997], and Watts [1997]. If we think of a "company as a sentient being on a purposeful journey," then what do we think of the people who attempt to unionize and impede the journey? Disney characterizes the 1941 cutbacks which led in part to the union activity and to a subsequent strike as a "program...designed to bring output in line with results reasonably to be anticipated from the distribution of the Company's pictures under present world conditions." He portrayed it as a technical problem that required a reasonable technical solution. Thus, the union advocates and strikers, who Boje [1995, pp. 1014-1015] pointed out had several complaints about their inequitable treatment by Disney, were the source of the "labor troubles" that beset the company. The impression is one of Big Labor and its goons ganging up on the company (the American Federation of Labor is mentioned, as are "secondary boycotts" and "hot cargo' activities"). The arbitration award is described as being "imposed" on the company (the word is used twice in the section). So the metaphor established in the 1940 stockholders' letter is carried over to the 1941 letter and is consistent in its entailments: unreasonable employees joined a union and went on strike, preventing the company from implementing a reasonable program to help it on its journey. Then, despite "[r]epeated efforts by the Company to effect a settlement," government came in and arbitrated a settlement, which imposed several bad things, further impeding the journey. However, everything "is now operating smoothly" in spite of these obstacles.

Despite these comforting words, Disney was apparently in no mood to have future journeys disrupted by what he regarded as ideologically perverted union behavior. The 1941 strike is said to have caused him to become "a militant anti-communist" and, in the 1950s, "a [secret] special FBI agent charged with passing on information about supposed communist infiltration" of Hollywood [New Internationalist, 1998, p. 8]. His embrace of a business structure of vertical integration in which, for example, his company controls not only the production of film and television programs, but also controls their distribution and associated product licensing and retail merchandising sales, points to the adoption of the metaphor of the uninterrupted journey as a tangible business goal.

Carrier [1997, p. 51] described "a public language" of "the Market model" which he alleged:
...provides the vocabulary and conceptual equipment that make it relatively easy to define certain sorts of things as problems and relatively hard to define other sorts of things that way. Just as it influences the sorts of problems that can be addressed, so it influences what is likely to appear as an acceptable, plausible solution.

Like a lingua franca, such a version of the “Market” helps create “an external reality that [people] have to adopt if they are to communicate with others” [Carrier, 1997, p. 49]. Carrier was concerned with the idea of the “Free Market” in the 1990s, and how such a richly complex metaphor affects people’s arguments, decisions, and public debates. He traced the most important historical roots of the “Market” to 18th and 19th century Britain. Importantly for purposes of this paper, he concluded that “...in popular consciousness the idea flourishes best in the United States, with its long traditions of that secular, acquisitive individualism and concern with equality of process rather than of outcome that form part of the Market” [Carrier, 1997, p. vii].

Disney’s ideological notion of his company is metaphorical in the same sense as Carrier’s notion of the “Market.” Disney’s company is related intimately to Carrier’s “Market,” for the company metaphorically pursues its life-journey largely by entering into transactions within the ambit of this metaphorical market. And since, as Carrier [1997] reminded us, such a metaphorical market is a “Free Market,” anything that interferes with such metaphorical freedom is to be treated with non-metaphorical hostility (e.g., the national labor union with which Disney’s striking employees allied themselves in 1941). Perhaps warfare was not restricted, metaphorically or otherwise, just to Europe in 1941.

Eubanks’ [1999, p. 195] contention that “all metaphors are inflected by politics, economics, philosophy, social interests, professional commitments, and personal attitudes” seems apt here since the fiercely independent and self-made Disney probably could conceive of his company in no way other than the metaphoric representation described above. His discourse in the 1940 and 1941 stockholders’ letters set out his ideology and philosophy of management and management control. Such discourse represented, in effect, the way he made sense of the world.
SUMMARY AND CONCLUSIONS

We have used the themes of rhetoric and metaphor to examine the 1940 stockholders' letter of Walt Disney Productions, the first such accountability document signed by Walt Disney, and, to a lesser extent, the 1941 letter. These letters provide an accounting, a story, that Disney intended to craft within the confines of the tensions between his company's financial exigencies and his creative, iconic persona. Walt Disney was as skilled in designing financial reporting and accountability narrative and discourse as he was in creating animated cartoons and features. The letters seem crafted with the goal to forge allegiance with the new preferred stockholders firmly in mind in spite of his strong resentment. And if we take seriously the current literature of cognitive metaphor, the letters also reveal features of Disney's thinking, especially about key social and economic institutions. In sum, although the narrative part of financial accounting examined here is rhetorically and linguistic complex, the analyses conducted expose the types of insights that help render management and the companies they lead more understandable. Disney as accountant was ever as complex as Disney the cultural icon.

An ongoing and important task addressed by historians is that of revealing and analyzing the character, personality, and behavior of corporations and their CEOs. In pursuing that task, important insights about corporations and individuals have been sourced from many quarters. But rarely have historians delved into the narrative discourse of CEOs in annual reports when seeking to add to the arsenal of information they marshal in support of biographic profiles, corporate histories, or other historical text. This paper provides an example of how analysis of narrative discourse by CEOs in annual reports can add to and enrich understanding of leading corporations and their chief executives.

The insights offered through adoption of a "close reading" of CEO text have been demonstrated clearly here. By focusing on the rhetorical, metaphorical, and ideological features of Walt Disney's 1940 letter to stockholders, insight into the behavior and character of Walt Disney and the Disney Corporation is provided. Our analysis reveals Walt Disney to be a skillful, yet subtle rhetorician, whose rhetorical capabilities encompass a deft capacity to manipulate accounting data strategically. Disney was not only a master storyteller in the surreal surrounds of the cinema where he could exploit the glitz and glamor of visual and sound imagery. Perhaps somewhat surprisingly, he is revealed as very adept also in a grey
and glamor-free domain with which few would remotely imagine associating him — financial reporting. Our analysis reveals Disney as a very clever storyteller in weaving rhetorical magic in the realm of the mundane — accountability narratives in an annual report.

By exploring Disney’s use of metaphor, we show how further perspectives can be developed and how this assists us in entering theoretical speculations about Disney’s ideological motivations. Our analysis yields results which, in the main, are contrary to the popular, ambient image of Walt Disney; that is, as the wholesome, friendly “Uncle Walt.” Somewhat perversely, we find evidence consistent with what we reported earlier as Walt Disney’s “darker side.” He is revealed as something of an enigma, the cultural icon who seemed almost as adept at crafting financial narrative in a hard-nosed business world as he was at fashioning animation.

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APPENDIX 1

Letter to Stockholders for the 1940 Walt Disney Productions Annual Report

To the Stockholders of Walt Disney Productions:

In April, 1940, Walt Disney Productions sought and obtained the participation of the public in its business through the sale of 155,000 shares of 6% Cumulative Convertible Preferred Stock, and the Board of Directors herewith submits its first annual report to the Company's new stockholders.

Included herein are financial statements of the Company for the fiscal year ended September 28, 1940, accompanied by the report of the Company's auditors, Messrs. Price, Waterhouse & Co. We invite your attention to the notes which are attached to and constitute an integral part of the financial statements.

Your management believes that it will be of interest to our 1,800 stockholders to supplement the information shown in the financial statements with the following additional facts pertaining to the Company.

NEW STUDIO

At the time of the sale of the 6% Cumulative Preferred Stock, the Company was constructing and equipping its new studio. This studio was substantially completed and equipped and virtually all of the Company's production operations were transferred thereto by the end of May, 1940. As a result of the increased facilities, the Company has been able to augment its production of completed footage by more than 100% and has succeeded in lowering the cost of production per foot substantially. Therefore, the Company will be able to carry out its new policy of releasing two or more feature subjects each year as well as a large number of short subjects. As a result of the reduction in costs, short subjects are now being produced at a figure which the management believes will result in profitable releases even though sources of income in certain foreign countries now at war are no longer available.

EFFECT OF THE WAR

The effect of the war in Europe upon the affairs of your Company has been serious and the full measure thereof cannot yet be determined. It has been impossible to effect an orderly release of the Company's pictures in any of the countries at war and in many countries it has been impossible to effect any release whatsoever. In fact, in most of the territories dominated by the Axis Powers, the release of American pictures has been forbidden. In addition, currency restrictions and regulations, as well as fluctuations in foreign exchange rates, have served to reduce further the Company's income from such pictures as were already released in foreign countries.

PRODUCT

During the year, the Company delivered to RKO Radio Pictures, Inc., the organization currently distributing our pictures, one feature picture and ten short subjects and has in current production a number of other features and short subjects. Developments in connection with the Company's product are summarized as follows:

PINOCCHIO:

PINOCCHIO was first shown at the Center Theatre in New York on February 7, 1940, and at the Pantages and Hillstreet Theatres in Los Angeles on February 10, 1940. It was subsequently released for general exhibition on February 23, 1940. To the end of the Company's fiscal year, September 28, 1940, this picture had earned gross world film rentals of $1,673,956.54 of which $1,627,331.79 represented film rentals from the United States and Canada. The Company has received from its distributors as its net share of the world film rentals,
$976,211.94. In addition, there have accrued to the credit of the Company, certain funds in Great Britain and Australasia amounting to £5818.7.5, which have been blocked by currency restrictions.

The Company has prepared Spanish and Portuguese language versions of this picture which are currently being shown in all the countries of Central and South America, as well as in the Philippine Islands and Portugal. No income from the Spanish and Portuguese language versions of PINOCCHIO is reflected in the above-mentioned film rentals as the picture was released in those countries too late for any such revenue to be included in the year ended September 28, 1940.

The total cost of producing PINOCCHIO was $2,595,379.66 and it is now anticipated that this amount will not be recouped under the conditions prevailing throughout the world. Accordingly, a charge of $1,000,000 has been made to provide for the excess of cost of this picture over the estimated total revenue.

The picture PINOCCHIO was planned and production was started prior to the outbreak of the European war. Consequently, it was budgeted on a program contemplating income from all countries where SNOW WHITE AND THE SEVEN DWARFS had been released. In addition, this production suffered from excessive cost which was a direct result of the transition period through which the Company passed when it changed its policy of making one feature in two years (SNOW WHITE was released in January, 1938), to a policy of producing from two to four features a year as presently projected. These excessive costs cannot be segregated as they very largely represent discarded work of untrained personnel. PINOCCHIO was produced during a period of development and expansion. These factors which included the schooling and training of personnel to meet the increased production needs, together with inadequate plant facilities at the old studios, contributed in no small measure to the high cost of this production.

FANTASIA:

FANTASIA was exhibited for the first time at the Broadway Theatre in New York on November 13, 1940. This picture is an innovation in the field of entertainment, featuring Leopold Stokowski and the Philadelphia Orchestra in a program of music as interpreted by Walt Disney and the Company’s staff of artists and technicians. FANTASIA is being presented by methods never before employed in the exhibition of motion pictures. The exhibition of this production requires special sound equipment and the Company has contracted to purchase sufficient equipment so that the picture can be distributed simultaneously in twelve theatres. It is now planned to distribute the picture by the “road show” method in the first-run cities of the United States, Canada and other large centers. The management believes this method of distribution will result in an eventual realization of revenue in excess of that which would be realized by ordinary methods of distribution. However, this method of distribution will require a longer period of time for the Company to recoup the cost of the picture.

OTHER FEATURES:

Three other feature length pictures currently in production are planned for release during the fiscal year ending September 27, 1941. THE RELUCTANT DRAGON is a combination of animated cartoon and “live action” comedy, featuring the well-known humorist, Robert Benchley. BAMBI is a dramatization, through the medium of the animated cartoon, of the well-known book of the same name by Felix Salten. A distribution contract for both of the last-mentioned features has been entered into with RKO Radio Pictures, Inc. The name and basic story of the picture, DUMBO, THE FLYING ELEPHANT were purchased by the Company and are being developed by our staff into a feature length cartoon.

Among the features scheduled for release in 1942 are PETER PAN and WIND IN THE WILLOWS.

SHORT SUBJECTS:

During the fiscal year ended September 28, 1940 the Company delivered to RKO Radio Pictures, Inc. a total of ten short subjects and contemplates delivery of twenty short subjects during the fiscal year 1941. These pictures continue in high popular favor and should prove to be a profitable part of the Company’s business inasmuch as the increased efficiency made possible by the new plant has materially reduced production costs.
The Company has recently extended its releasing contract with RKO Radio Pictures, Inc. to cover a fourth series of eighteen short subjects. The Company presently has twenty-eight short subjects in various stages of production.

OTHER ENDEAVORS

Names and characters created by the Company and licensed for use on merchandise, etc. continue to have a wide-spread appeal. Royalties from this source, from books and music, and revenue from comic strips and art sales, constitute a substantial portion of the income of the Company.

GENERAL

The inventory of pictures in process at the close of the fiscal year was the largest in the Company's history. The total cost of the feature length and short subjects in production was $3,650,256.67. These pictures represented a total film length of 44,490 feet. In addition there were 149 stories in our inventory on which we had spent $367,275.41. The system of budget control both as to cost and output was revised when the Company moved to the new studio, with the result that both feature pictures and short subjects are presently being completed on schedule and at their budgeted costs.

Your management has reduced expenses and has taken aggressive steps toward lowering production costs by increasing efficiency and eliminating dispensable activities.

In considering the profit and loss statement of the Company, it is worth while to repeat the following statement made in the prospectus offering the 6% Convertible Preferred Stock:

“The Company's principal income accrues according to the rapidity with which its features are exhibited in theatres and, accordingly, the relationship between dates of release and dates of accounting periods has in the past produced and will probably continue in the future to produce wide variations in earnings as they may from time to time be reported. This is made more pronounced by a program which contemplates the release of only one or two features per year. In connection with SNOW WHITE AND THE SEVEN DWARFS, the Company adopted a policy of writing off the entire cost of the picture against the first revenues received, and the Company may in the future follow this policy with respect to all of its feature productions. Consequently, if any given accounting period closes at a time when revenues have failed to exceed the costs incurred in connection with the production of a feature released during such period, it is possible that a loss may be reported in such period notwithstanding the fact that an actual profit may eventually be realized on such feature.”

During the fiscal year ended September 28, 1940, the Company had only one new feature picture—PINOCCHIO—in release.

The Company also re-issued SNOW WHITE in the United States and Canada in July, 1940. This was released as the WALT DISNEY FESTIVAL in conjunction with four Walt Disney short subjects and is currently doing a satisfactory business.

During the next fiscal year ending September 27, 1941, the Company expects to have three new feature pictures in general release, in addition to its quota of new short subjects. These pictures should reflect the benefit accruing to the Company by reason of the training and skill acquired by the artists during the last three years. While the serious effect on the Company's business caused by the loss of foreign markets cannot be minimized, nevertheless your management now believes it has adjusted the Company's operations to a schedule of production and costs designed to be independent of those markets.

CAPITAL STOCK

At a meeting of the directors held on February 24, 1940, the capital stock of the Company was reclassified into 755,000 shares, of which 600,000 shares were designated as Common Stock (with a par value of $5 a share), and 155,000 shares were designated as 6% Cumulative Convertible Preferred Stock (with a par value of $25 per share). 300,000 shares of Common Stock ($5 par value) were thereupon issued in exchange for 150,000 shares of Common Stock.
($10 par value) previously outstanding, and 45,000 shares of Common Stock were issued as a 15% stock dividend on the new amount of outstanding stock. 10,000 shares of Common Stock were issued to Walter E. Disney and Roy O. Disney in consideration of the cancellation of $200,000 indebtedness of the Company to them. 150,000 shares of preferred Stock were sold to the public through underwriters for net proceeds of $3,412,500 and 5,000 shares were sold to officers and employees for $125,000.

An initial dividend of 37 1/2c was paid July 1, 1940, to the Preferred stockholders of record June 15, 1940, and a regular quarterly dividend of 37 1/2c was paid October 1, 1940, to Preferred stockholders of record September 16, 1940. The regular quarterly dividend of 37 1/2c payable January 1, 1941, to Preferred stockholders of record December 16, 1940, was declared by the Board of Directors at a meeting held December 2, 1940. This dividend will be paid from the Company's initial surplus. No dividends were paid on the Common Stock.

DIRECTORS

During the year, Edward M. Francis resigned as a director of the Company and in his place the board elected Jonathan B. Lovelace as the representative of the Preferred stockholders in anticipation of Paragraph 9 of Article 5 of the Articles of Incorporation, as amended, which provides that:

"Holders of the Preferred Stock, voting separately as a class and entitled to one vote per share, shall be entitled to hold office for a term of one (1) year and until his successor shall have been elected."

EMPLOYEES

At September 28, 1940, the organization consisted of a total of 1179 employees.

The Directors want to take this opportunity of thanking all members of the organization, whose loyalty and co-operation have contributed in such large measure to the continued progress of the Company.

FOR THE BOARD OF DIRECTORS
WALTER E. DISNEY, President.

APPENDIX 2

Letter to Stockholders for the 1941 Walt Disney Productions Annual Report

To the Stockholders of Walt Disney Productions:

We submit herewith as part of this annual report to stockholders financial statements of the Company for the fiscal year ended September 27, 1941, accompanied by the report of the Company's auditors, Messrs. Price, Waterhouse & Co. We direct your attention to the notes which are attached to and constitute an integral part of the financial statements.

FOREWORD

In our annual report to stockholders issued in December, 1940, and covering the fiscal year ended September 28, 1940, we stated, "the effect of the war in Europe upon the affairs of your Company has been serious and the full measure thereof cannot yet be determined." It was evident that the loss of foreign markets necessitated a sharp lowering in production costs in order to assure a profit from the remaining markets. The Company immediately took steps toward that objective. Since the date of that report there has been a further deterioration in the foreign markets and the Company again found it necessary to reduce materially its operating expenses and personnel in order to consolidate its position. As this program was being placed in effect, a strike was called by a minority group of the Company's employees. This development, discussed later in this report under the heading "Labor Relations," resulted in a retardation of our production schedule and interfered with the delivery and exhibition of...
Following is a summary of income account and balance sheet items taken from the financial statements published on pages 8 to 10 of this report, compared with corresponding figures in last year's report:

### Income Account

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>1941</th>
<th>1940</th>
<th>Increase (decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from short subjects less amortization</td>
<td>$457,391.61</td>
<td>$131,668.88</td>
<td>$325,722.73</td>
</tr>
<tr>
<td>Income from royalties, comic strips, art work, licenses, etc., less costs</td>
<td>185,253.97</td>
<td>267,898.90</td>
<td>(82,644.93)</td>
</tr>
<tr>
<td>Income from “Snow White and the Seven Dwarfs”</td>
<td>$139,173.23</td>
<td>103,526.10</td>
<td>35,647.13</td>
</tr>
<tr>
<td>Total</td>
<td>$781,818.81</td>
<td>$503,093.88</td>
<td>$278,724.93</td>
</tr>
<tr>
<td>Administrative and selling expenses</td>
<td>$420,127.32</td>
<td>649,354.68</td>
<td>(229,227.36)</td>
</tr>
<tr>
<td>Balance</td>
<td>$361,691.49</td>
<td>($146,260.80)</td>
<td>$507,952.29</td>
</tr>
<tr>
<td>Interest expense</td>
<td>150,988.55</td>
<td>113,537.25</td>
<td>37,451.30</td>
</tr>
<tr>
<td>Profit (loss) before provision for losses on features</td>
<td>$210,702.94</td>
<td>($259,798.05)</td>
<td>$470,500.99</td>
</tr>
<tr>
<td>Provision for excess cost of features over estimated net income</td>
<td>$1,000,000.00</td>
<td></td>
<td>$1,000,000.00</td>
</tr>
<tr>
<td>Balance (loss)</td>
<td>($789,297.06)</td>
<td>($1,259,798.05)</td>
<td>$470,500.99</td>
</tr>
</tbody>
</table>

### Balance Sheets

<table>
<thead>
<tr>
<th></th>
<th>September 27, 1941</th>
<th>September 28, 1940</th>
<th>Increase (decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and receivables</td>
<td>$156,020.52</td>
<td>$132,410.20</td>
<td>$23,610.32</td>
</tr>
<tr>
<td>Inventories at cost:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pictures in process, etc.</td>
<td>2,882,713.43</td>
<td>4,093,119.94</td>
<td>(1,210,406.51)</td>
</tr>
<tr>
<td>Unamortized picture costs</td>
<td>4,874,006.16</td>
<td>1,833,436.66</td>
<td>3,040,569.50</td>
</tr>
<tr>
<td>Total current and working assets, before deducting reserves</td>
<td>$7,912,740.11</td>
<td>$6,058,966.80</td>
<td>$1,853,773.31</td>
</tr>
<tr>
<td>Deduct provision for excess of cost over estimated net income from feature pictures</td>
<td>2,000,000.00</td>
<td>1,000,000.00</td>
<td>1,000,000.00</td>
</tr>
<tr>
<td>Current and working assets as per balance sheet</td>
<td>$5,912,740.11</td>
<td>$5,058,966.80</td>
<td>$853,773.31</td>
</tr>
<tr>
<td>Bank loans</td>
<td>$5,371,669.03</td>
<td>$1,932,992.24</td>
<td>$3,438,676.79</td>
</tr>
<tr>
<td>Other liabilities, reserve for taxes and deferred income</td>
<td>907,273.30</td>
<td>841,499.11</td>
<td>$65,774.19</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>$12,789,242.33</td>
<td>$2,774,491.35</td>
<td>$10,014,750.98</td>
</tr>
<tr>
<td>Excess of current and working assets (as stated) over all liabilities</td>
<td>$1,633,797.78</td>
<td>$2,284,475.45</td>
<td>(650,677.67)</td>
</tr>
<tr>
<td>Depreciation of plant and equipment</td>
<td>1,060.61</td>
<td>1,088.70</td>
<td>(28.09)</td>
</tr>
<tr>
<td>Land, buildings and equipment at cost less reserve for depreciation</td>
<td>3,005,161.18</td>
<td>3,263,170.31</td>
<td>(258,009.13)</td>
</tr>
<tr>
<td>Copyrights, trademarks and patents less reserve for amortization</td>
<td>7,892.77</td>
<td>8,613.67</td>
<td>(720.90)</td>
</tr>
<tr>
<td>Deferred charges</td>
<td>234,186.31</td>
<td>230,297.68</td>
<td>3,888.73</td>
</tr>
<tr>
<td>Total net assets, as per balance sheet</td>
<td>$4,882,098.75</td>
<td>$5,787,645.81</td>
<td>($905,547.06)</td>
</tr>
<tr>
<td>Funds not taken into books representing blocked currencies at current official rates, approximately</td>
<td>345,000.00</td>
<td>22,000.00</td>
<td>323,000.00</td>
</tr>
</tbody>
</table>

The comparative figures taken from the income account show the progress made in reduction of costs. The Company shows a profit, after all charges but before provision for excess cost of feature pictures over estimated net income therefrom, of $210,702.94 as com-
pared with a loss of $259,798.05 in the fiscal year ended September 28, 1940. The income account does not reflect the reduction in costs of feature pictures as DUMBO was not released until after the close of the fiscal year. It does, however, reflect the working off of the inventory of high cost shorts and restoration of a satisfactory profit in that division. Last year the Company provided a reserve of $1,000,000 to write off the excess cost of PINOCCHIO. The Company has estimated its expectancy of return from all of its feature product, and as a result has set up a provision against a possible loss in the amount of $1,000,000.

The comparative figures taken from the Balance Sheet show that while pictures in process have decreased $1,210,406.51, the unamortized value of completed pictures has increased $3,040,569.50, giving a net increase in inventory (before reserve) of $1,830,162.99. This increase, which was largely financed by bank loans, is due primarily to the delay in the general release of FANTASIA, and to labor difficulties experienced at the time of release of THE RELUCTANT DRAGON. The Company now has two feature pictures ready for general release, DUMBO and FANTASIA. A third feature, BAMBI, is practically completed. With current operations reduced by 50% from last year, a steady reduction of the bank loan is anticipated.

Blocked currencies are not included in the Company's accounts until received. In October, 1941, the British Government entered into an agreement with the motion picture companies whereby 50% of the blocked currencies previously impounded in Great Britain was released. One-half of this amount was immediately payable and one-half is payable in April, 1942. The Company, since the date of this report, has received approximately $65,000 as part payment of its share of impounded funds. Australia and New Zealand have not yet released any of that portion of our revenue which those countries impounded.

PRODUCT

During the fiscal year under review the Company released its feature picture FANTASIA. Initially this picture was distributed directly by the Company through the medium of road shows using "Fantasound" rather than through normal distribution channels. The picture was presented in thirteen cities (New York, Boston, Los Angeles, Philadelphia, Detroit, Chicago, San Francisco, Pittsburgh, Cleveland, Buffalo, Minneapolis, Washington and Baltimore) and while a few of the engagements were disappointing, the aggregate results indicated a picture with wide appeal. The length of the New York and Los Angeles runs broke all existing records since the advent of sound.

Experience gained from the exhibition of FANTASIA in the above-mentioned cities demonstrated that a national distribution of this picture with "Fantasound" was impractical. It was therefore decided to abandon "Fantasound" and generally release the picture through normal distribution channels. Our sound engineers succeeded in combining the various "Fantasound" tracks into one composite track, enabling the Company to present FANTASIA in motion pictures everywhere.

The company entered into an agreement with RKO Radio Pictures, Inc. for the distribution of FANTASIA throughout the world. Spanish and Portuguese versions have been prepared for the South American market, and the picture has already been released in Rio de Janeiro and Sao Paulo, Brazil; Montevideo, Uruguay and Buenos Aires, Argentina. FANTASIA is also being currently released in England and Australasia.

It is now planned to place FANTASIA in general distribution in the United States immediately following DUMBO. In preparation for this general release, test runs were made in representative small towns to guide in editing this picture.

THE RELUCTANT DRAGON

This picture was completed and delivered to RKO Radio Pictures, Inc. on April 17, 1941. It was first put into general release on June 20, 1941. Revenues obtained from this picture were seriously affected by the strike, due to picketing at various theatres throughout the country. It has been released in Great Britain and Australasia. Spanish and Portuguese versions have been prepared for the release of the picture in South America.

Although results to date have been disappointing, we are confident of the return to the Company of at least $500,000 and have provided in the inventory reserve for the balance of the cost.
DUMBO

DUMBO was completed and delivered to our distributor September 11, 1941. Because of selling conditions in the industry the picture was not generally released until the middle of December. The picture was pre-shown in the Broadway Theatre, New York, beginning October 23rd, and has been well received. In the trade and press it is getting excellent exploitation and publicity.

DUMBO is our first all-cartoon feature picture budgeted and produced subsequent to the outbreak of the European war and the loss of our foreign markets. The picture was produced at a cost well within present market possibilities and is of a quality that assures, in our opinion, a profitable return.

SHORT SUBJECTS

During the fiscal year ended September 27, 1941, the Company delivered to RKO Radio Pictures, Inc. a total of twenty-two short subjects. Our costs have been reduced to meet present market conditions and the pictures continue to be a profitable source of revenue.

Under date of April 11, 1941, the Company extended its releasing contract with RKO to cover a fifth series of eighteen short subjects.

The Company now has 22 short subjects in various stages of production.

BAMBI

The Company's feature picture BAMBI has been in work for over three years and is now practically completed. As now scheduled it will be delivered to RKO Radio Pictures, Inc. on or about the first of February, 1942. Completion of this picture was delayed at least three months by the strike. It was the last of the feature pictures projected on the basis of the pre-war markets. Its cost will be substantially higher than DUMBO but will be approximately $1,000,000 less than the cost of PINOCCHIO. It is the consensus of opinion of those who have seen the picture that it is the best the Company has ever produced for entertainment value and quality of production.

FEATURES RELEASED IN PRIOR YEARS

During the fiscal year ended September 27, 1941, PINOCCHIO, which was first shown on February 7, 1940, returned a gross film rental of $554,730.74 of which the Company's share amounted to $387,100.12. This brought the total gross film rental on September 27, 1941, to $2,228,687.28 of which the Company's share was $1,363,312.06. The amount received in 1941 would seem to assure recoupment of the balance of the unamortized negative cost of $233,439.64 after giving effect to the reserve set up last year. The Company's share of blocked currencies resulting from the showings of PINOCCHIO had a value at official rates of approximately $210,000 at September 27, 1941. This amount is not included in the figures quoted above.

SNOW WHITE AND THE SEVEN DWARFS which was first shown in December of 1937 returned to the Company the sum of $139,173.23 in the fiscal year ended September 27, 1941.

OTHER ENDEAVORS

The licensing of names and characters created by the Company continues to have universal commercial appeal but revenue has fallen off during the year mainly because FANTASIA did not lend itself readily to such exploitation. Certain of our licensees also were beginning to feel the effect of defense priorities. However, royalties from this source and from books, music, comic strips and art sales continue to be substantial sources of income.
LABOR RELATIONS

For the first time in its history the company was, during 1941, beset by labor troubles. Early in May the Studio launched a program of reducing operating expenses and personnel, designed to bring output in line with results reasonably to be anticipated from the distribution of the Company's pictures under present world conditions. As this policy was being initiated, a strike was called (on May 28, 1941) by Screen Cartoonists Union, Local No. 852, an affiliate of the International Brotherhood of Painters, Paperhangers and Decorators of America (A. F. of L.). A majority of our employees stayed at work and during the nine weeks of the strike the Company's production proceeded satisfactorily. However, due to secondary boycotts and "hot cargo" activities on the part of sympathetic unions it became impossible to deliver and exhibit our product.

Repeated efforts by the Company to effect a settlement were unavailing. Finally, a commissioner from the National Conciliator's Office intervened; arbitration was agreed upon and an award was eventually rendered. Among other things, the award imposed the following: a close shop; reinstatement of all strikers; and 100 hours' retroactive pay for strikers. In relation to our proposed reduction of personnel, the award also imposed a formula under which a certain percentage of strikers had to be retained pro rata to non-striking employees. However, it required the Union to take in as a body without prejudice and at a nominal initiation fee employees in its classification who had remained at work during the strike.

After a period of four weeks of complete shutdown, necessitated by protracted negotiations, the Company resumed operations on September 15, 1941. The Studio is now operating under the terms of the award which, unfortunately, is in many respects very ambiguous and is silent on several disputed issues. However, the plant is now operating smoothly.

DIVIDENDS AND SINKING FUND REQUIREMENTS

In a letter addressed to the stockholders under date of June 14, 1941, you were advised of the reason for the omission of the preferred stock sinking fund payment due April 1, 1941, in the amount of $50,000 and of the deferment of the quarterly preferred dividend due July 1, 1941. The necessity for conserving working capital pending the orderly liquidation of the Company's inventory of completed feature pictures caused omission of the $100,000 preferred stock sinking fund payment due October 1, 1941, and deferment of the quarterly dividend on the preferred stock due on that date. Consideration will be given to resumption of payments when and as a comfortable working capital position has been re-established, but no prediction can be made in this respect at this time. The dividends on the preferred stock being cumulative, all arrearages in such dividends as well as fixed sinking fund payments must be paid before any dividends may be paid on the common stock.

GENERAL

Our principal problem now is one of orderly and satisfactory liquidation of feature product. Within the Studio production is going forward and costs are in keeping with present markets. The Company is operating with less than 50% of the personnel and payroll of May, 1941. Our working capital position is strained because of the large amount of money tied up in feature negatives—DUMBO, FANTASIA and BAMBI. With proper liquidation of these three features, it is believed the Company will reduce its bank loan to a nominal figure or liquidate it completely and restore its working capital position to a satisfactory level. DUMBO and BAMBI are feature pictures which will have none of the problems of distribution presented by FANTASIA. Both are excellent pictures and should do satisfactory business.

For the current year, the Company is continuing its production of short subjects and has three feature subjects available for production, of which one would ordinarily be completed during the 1942 fiscal year. However, your management is making its facilities and equipment available for Army, Navy and other Government films in connection with national defense. We are now working on short subjects in cooperation with our Government's plans to promote hemispheric solidarity and are also producing a series of short subjects for the U. S. Navy and five short subjects for the Canadian Government. New feature product is being curtailed in

https://egrove.olemiss.edu/aah_journal/vol27/iss2/13
favor of federal defense work. The volume of defense film work required of us will determine the extent of work done on feature subjects during the current year.

In summary, we are still in an adjustment period brought about by world conditions and the consequent loss of markets, but we believe we have sustained the major shocks of this adjustment. Pictures being projected will be properly budgeted and produced for present restricted markets. Our experience with DUMBO and our short subjects gives us every confidence in our ability to meet these conditions satisfactorily with respect both to cost and quality of our product.

FOR THE BOARD OF DIRECTORS
Walter E. Disney, President
BUILDING THE CANADIAN CHARTERED ACCOUNTANCY PROFESSION: A BIOGRAPHY OF GEORGE EDWARDS, FCA, CBE, LLD, 1861-1947

Abstract. George Edwards was a key figure in the creation of the modern institutional structure of accounting in Canada. He worked to implement a vision of accountancy as a profession rather than a business. This was reflected in his commitment to accounting education, to the restriction of entry to the CA profession to those who passed a test of competency, and to his desire to demonstrate the social and ethical value of accounting. He was president of the Institute of Chartered Accountants of Ontario, president of the Dominion Association of CAs, and president of the Society of Cost Accountants of Canada. He created one of the major Canadian public accounting firms (Edwards, Morgan & Co.). His contributions were recognized through awards such as the Commander of the Order of the British Empire, an honorary degree from Queen's University, and life memberships in the Institutes of Chartered Accountants of Alberta, Ontario, Manitoba, and Saskatchewan. This biography examines his role in shaping the federal/provincial structure of the accounting profession, the development of university-based accounting education programs, the separation of the management and the financial accounting professions, the communications strategies of the profession, and his contributions to government and bank accounting.

Acknowledgments: This work was supported by the Visiting Scholar Program of the School of Business, University of Prince Edward Island. I would like to thank Brian Jones for his help in my entree into biographical research. The superb research assistance of Olivia Kan on this project is gratefully acknowledged.
Introduction

Biographical research provides an opportunity to explore the role of individuals in the development of accounting and accounting institutions [e.g.; Parker, 1994; Previts and Robinson, 1996; Slocum and Roberts, 1996]. It is individuals who create ideas and organizations [Wren, 1998]. It is often individuals, and their involvement in a range of seemingly unrelated activities, that provide the threads that hold together the fabric of historical experience. This is not to deny the role of broader social interests or structures in shaping historical outcomes. As Hooks [1953, p. xiii] observed, "every philosophy which recognizes that men can and do make their own history also concerns itself with the conditions under which it is made." Biographical research thus examines the interaction between the individual and the social structures that constrain and enable their actions [cf. Giddens, 1984; Macintosh and Scapens, 1990].

This biography traces the contribution of one individual, George Edwards, who had a significant impact on the Canadian accounting profession. Throughout his career, Edwards displayed a remarkable clarity and consistency of vision for the Chartered Accountancy (CA) profession. At his retirement dinner in 1926, W.H. West [1926, p. 213], president of the American Institute of Accountants, gave tribute to Edwards, saying:

Mr. Edwards is known from one end of the Dominion to the other as a man who has constantly striven for an ideal; that ideal being a unified profession established on a high plane, not only technically and intellectually, but morally as well.

Unlike many of his contemporaries, Edwards viewed accountancy as a profession rather than a business. This was reflected in his commitment to accounting education, to restricting entry to the CA profession to those who had passed a test of competency, and to his desire to demonstrate the social value of accounting. He wanted the CA institutes to be the sole representative of public accountants in Canada. He worked tirelessly to protect CAs against the encroachment of competing professional bodies. He also tried to institutionalize the public service dimension of accounting through his own example and through the creation of codes of ethics.
Edwards served the Canadian accounting profession for more than 30 years. During this time he was president of the Institute of CAs of Ontario (four terms), president of the Dominion Association of CAs (two terms), and founding president of the Canadian Society of Cost Accountants. He established a major national public accounting firm and used this firm to help build a national CA profession. His work earned him life memberships in the Institutes of CAs of Alberta, Ontario, Manitoba, and Saskatchewan. He was the first managing editor of the Canadian Chartered Accountant (now CA Magazine) and was instrumental in establishing accounting education as a university program of instruction in Canada. Queen's University awarded him an honorary degree in recognition of this service. During World War I, he served as accounting systems designer, comptroller, auditor, and liquidator for the Imperial Munitions Board in Canada and was named Commander of the Order of the British Empire (CBE). After the war, he served as auditor of Canada's national accounts, the first external auditor to serve in this role. He retired in 1926 from professional politics but remained an active member of his firm until 1941. He died in 1947 at the age of 86.

METHOD

The examination of George Edwards' career in this biography provides a unique perspective on the history of the Canadian profession. He was a source of continuity among a series of key formative events in the profession. His vision and values represent one of the many perspectives on accountancy during its early years. The success of his vision was, in part, a reflection of his indefatigable efforts against formidable opposition over 35 years. More importantly, the vision reflected the tenor of the times. It provided a rallying point for like-minded accountants and resulted in the creation of institutions consistent with broader social interests. George Edwards' biography allows us to identify the interaction between his policy choices and the context within which they were enacted and, hence, to understand better the evolution of the Canadian profession.

Biographical research has not developed a well-defined methodology [Jones, 1998]. The process involves selecting a subject, gathering data, analyzing, and reporting [Lomask, 1986]. Each of these steps involves choices that should be made explicit, but there are few guidelines for undertaking each stage. As Goodman and Kruger [1988, p. 315] noted: "It is easy to describe
the steps that the historian follows, it is significantly harder to understand the process that he or she undertakes." Beyond this, biographic research varies according to the perspective that the author brings to the task. For example, biographers have developed psychological profiles of their subjects [e.g., Harris-Seares, 1997], focused on the cultural context of the subject [e.g., Reynolds, 1997], or provided a detailed linguistic analysis of the subject's writings [Erlich, 1996]. This section will provide an overview of the choices made in constructing this biography.

The choice of George Edwards as a subject reflects the importance of the period from 1890 to 1925 in the development of the Canadian profession and the prominence of his role(s) throughout this time. This 35-year period resulted in the formation of all of the accounting associations that now dominate the Canadian profession. It is also the period in which the audit market developed its current form. It is a period in which the structure of the profession was debated and institutionalized. For example, the relationship between provincial and federal accounting associations, the division of labor between management and financial accounting associations, and the institutional framework for accounting education programs were all decided during this period. In each of these cases, an examination of the archives will show the important role that Edwards played [cf. Richardson, 1994]. To use Lomask's [1986, p. 10] word, George Edwards has significant historical "residue."

The data available for this biography consist of both primary and secondary sources. Primary sources include Edwards' writings, reports of the committees on which he served, recorded testimony before Senate hearings, and documents generated by him in various capacities (e.g., presidential addresses). Many of the key documents related to Edwards' contributions were published in the Canadian Chartered Accountant, a professional journal he founded for the CA profession. Data were also collected from marriage certificates, church records, business directories, and census records. Secondary sources include histories of the accounting associations and organizations with which he worked. In particular, the histories of the Imperial Munitions Board (including biographies of its chairman, Sir Joseph Flavelle) and the Institutes of CAs of Ontario, Manitoba, and Alberta include materials relevant to Edwards. Given Edwards' prominence in the profession, his obituaries in both the daily press and professional publications also provided valuable data and leads for additional
Richardson: Building Canadian Accountancy

source material [Editorial, 1947; Obituary, 1947]. Unfortunately, no archive of Edwards' personal papers has been located.¹

The analysis process used in this biography is narrative, chronological, and thematic [Erlich, 1996, p. 79]. No attempt has been made to quantify Edwards' contribution to the profession. Based on the documents, a series of key events was identified and discussed in chronological order. The analysis and interpretation of data assume that Edwards drew insights from his experiences and applied them to new circumstances as they emerged. It is also assumed that key aspects of Edwards' values and priorities are reflected in patterns of behavior over time [Atwood and Stolorow, 1984]. These emergent patterns are used retrospectively in this biography to help rationalize the choices that Edwards made during his life.

The structure of the paper follows the logic of analysis outlined above; i.e., it is chronological and thematic. The paper begins with a brief sketch of Edwards' personal life. This is followed by an overview of his business, primarily carried on under the name Edwards, Morgan & Co. There follow five sections dealing with the major issues in which Edwards was involved: (1) federal/provincial professional relations; (2) accounting education; (3) the Imperial Munitions Board; (4) government and bank accounting; and, (5) the division of labor in the profession between financial and management accounting. The conclusion identifies the common elements in Edwards' contribution to the profession and areas wherein his goals were not achieved.

GEORGE EDWARDS: PERSONAL

Edwards was born in St. James Ward, Toronto on March 25, 1861, six years before the creation of Canada as a sovereign nation. He was the fourth of five children born to William and Mary Anne Edwards.² He died on February 12, 1947 in the aftermath of World War II (see his photograph in Exhibit 1). His formal education was limited. He attended the Toronto Collegiate Institute (now Jarvis Collegiate Institute) and had "private tutors." Toronto Collegiate Institute was the first "Grammar School" in Canada (founded in 1807) and was intended to provide an academic education for students continuing on to college. Bookkeeping was taught in these

¹Edwards' family was contacted during the preparation of this biography and was invited to comment on this paper. The interpretations expressed, however, have not been approved or otherwise by the Edwards family.

²based on the 1871 Census of Canada
Edwards continued his accounting training as an apprentice with the accounting firms headed by E.R.C. Clarkson in Toronto, beginning at age 19 (Turner, Clarkson & Co. until 1881, E.R.C. Clarkson thereafter). Upon receiving his CA designation in 1889, he left Clarkson's firm and started his own practice. Edwards and Clarkson (both E.R.C. and his son G.T. Clarkson) would repeatedly find themselves at odds over the next 25 years regarding the structure of the profession, the need for examinations as a basis for entry to the profession, and the ethics to be applied to practice. At its heart, this disagreement was over whether accountancy was primarily a profession or a business.

At his retirement dinner, Edwards mentioned Clarkson as a friend and thanked Clarkson for giving him his start as an accountant. Although Clarkson could not be there (he was 74 years old and in poor health at the time), he wrote a letter of congratulations [Clarkson, 1926, p. 214] that included this rather cryptic paragraph:

There are few who have not more antipathies than are good for them — fellowship rubs these away; the game is here for members of this Institute to play manfully — it is a good and honest game — and they are the men to play it. These meetings indicate that, behind, there is a deep tribal sense that they should stand together and play the game fairly, and by consultation and argument pass on their knowledge to one another, encouraging by every means possible a full sense of the supreme obligation each one owes to his own conscience and his own pride.

This paragraph subtly suggests that the tension between them had not been forgotten, but that Clarkson recognized that their
debates had contributed positively to the development of accountancy.

George Edwards' family was well positioned in Toronto society. His father, William, had emigrated from England in 1836. He was a manufacturer, deeply involved in the Toronto Mechanics' Institute, a forerunner of the public library system, and a member of the Toronto City Council [Morgan, 1898, p. 305]. By 1868, William Edwards had been appointed as secretary (deputy minister) of the Ontario Department of Public Works, a position he held until his retirement [Champion, 1899; Creighton, 1984, p. 130]. He is also listed in various Toronto city directories as the secretary and treasurer of the Board of Arts and Manufacturers (1865) and as accountant and librarian to the Board of Agriculture (1866).

William Edwards was prominent in the Methodist community of Toronto; both his eldest and youngest sons were Methodist ministers. The Edwards family initially attended the George St. Methodist church. This church was the wellspring of Methodism in Toronto, serving the city's merchant families. Champion [1899, p. 83] described the congregation as follows:

> No professional men, either physician or lawyer was found among its worshippers. It had several who were engaged in business but none whose business was large enough to be remarkable. It had a monopoly of the merchant tailors and master shoemakers of the city.

As William Edwards progressed in his career, he moved his family to a more prestigious neighborhood and joined Trinity Methodist church. William held several positions within the church, acting as a trustee and as a member of its temperance committee. The congregation at Trinity Methodist included "some of Toronto's merchant princes and successful businessmen" [Champion, 1899, p. 219]. These contacts would be important in George Edwards' career as an accountant.

George Edwards also maintained close ties with the church. In 1911, he bought the former Bala Falls Hotel in Bala, Ontario about 100 miles north of Toronto. He built a cottage on the property which he named "Caerholme" [Petry, 1998, p. 40].³ George added a room to the cottage for the use of the Anglican bishop of

³The property is now known as Edwards' Point.
Toronto. In 1920, he donated a portion of the land around his cottage to the Anglican Church and a small, cedar shake chapel (St. Alban's) was built on the site. This church allowed the Anglican congregation to move from a nearby church shared by Anglicans, Methodists, and Presbyterians. His connection to the Methodist and Anglican churches provided guidance for his attempts to restructure the profession (see the discussion of the Dominion Association of CAs below) and gave him contacts with prominent business and political elites (see the discussion of Edwards' firm below).

Edwards married Sarah Caroline Woods in 1884 at age 23. Together they had five sons (Arthur, Hugh, Oswald, Alfred, and John) and one daughter (Gertrude). Edwards has been described as "small and dapper" [Creighton, 1984, p. 130] and "ambitious, outspoken and just plain pig-headed" [Perspectives, 1985, p. 2]. He ran his accounting firm as a family business and, although successful, he was reputed to have had difficulty maintaining senior staff whose surname was not Edwards [Creighton, 1984, p. 134].

Interestingly, on his marriage certificate Edwards listed his occupation as "woolen manufacturer." At his retirement dinner in 1926, it was mentioned that he had obtained "a general mercantile experience" between 1880 and 1890 (his years with Clarkson). Clarkson had a significant bankruptcy practice and on occasion would take over the management of a failed firm rather than liquidating the assets [Little, 1964, p. 18]. Clarkson also had several business interests of his own. Edwards spent nine years with Clarkson prior to receiving his CA designation at a time when a five-year apprenticeship was the norm. It is possible that Edwards was involved in one of Clarkson's businesses during this time. Edwards also recounted at his retirement dinner that Clarkson had paid him $2.50 per day rather than the going rate of $2 per day which, he recalled, was greatly appreciated given his family responsibilities.

Although Edwards was not listed in any of the Who's Who in Canada for this period, his profile is consistent with the "accounting elite" [Richardson, 1989]. The accounting elite in Canada during this period was primarily Ontario-born, Anglican, Conservative, male, and relatively less educated than the business elite of the day. Unlike the typical member of the accounting elite, Edwards was not active in municipal politics or as a company director. The lack of these commitments may have allowed him

4based on the Canadian Directory of Directors for the period
the time to concentrate on professional issues. The fact that Edwards was not listed in these directories, while other members of his firm and family were, suggests that he consciously refused to be included. This apparent humility, a preference to work out of the limelight, is characteristic of his career.

THE ACCOUNTING FIRM: EDWARDS, MORGAN & CO.

George Edwards articled with E.R.C. Clarkson beginning in 1880 at the age of 19. He stayed with Clarkson until he received his CA designation in 1889. At that time he formed a partnership with Alexander Hart-Smith and began to practice in Toronto. Hart-Smith died in 1903 and Hart-Smith's stepson, William Pomeroy Morgan, entered into partnership with Edwards. The new firm was known as Edwards, Morgan & Co. (see Exhibit 2).

All of Edwards' five sons eventually joined the firm: Arthur Harper Edwards (CA, 1902), Hugh Percival Edwards (CA, 1913), Oswald Noel Edwards (CA, 1917), Alfred Geoffrey Edwards (CA, 1917), and John Macham Edwards (CA, 1920). Several of his sons would follow in their father's footsteps in serving the profession. Arthur became a founding member of the Institute of CAs of Manitoba and served as a president of the Institute of CAs of British Columbia. Hugh (Percy) served for many years on the Institute of CAs of Ontario (ICAO) council and as president. Oswald is also notable, but for contrary reasons. Although he became an accountant, he was apparently not happy with the role. He was able to express this antipathy on one occasion when he was asked to set an examination on cost accounting for the ICAO. The examination was so difficult that no one achieved a passing grade, and Oswald was never asked to take on such duties again [Creighton, 1984]. The Edwards, Morgan & Co. firm continued past Edwards' death until it finally disappeared through a merger with Deloitte and Touche in 1957.

Edwards' daughter (Gertrude), it should be noted, is neither among the alumni of the firm nor is her name or Edwards' wife's name ever mentioned in any professional documents. At Edwards' retirement dinner, Mrs. Edwards was presented with a brooch to commemorate the event. This is probably not surprising given Edwards' views on women in the profession. As president of the ICAO in 1896, Edwards debated the wisdom of admitting women to membership. He offered the opinion that "women could not hold their own in executive ability, especially in accounting" and that "the prestige of the profession would suffer
by admission of ladies to membership" [Creighton, 1984, p. 47]. Edwards' views held the day, and the Institute voted against allowing women entry to the profession [McKeen and Richardson, 1998]. Edwards' attitude was common for his generation and is consistent with his educational experience at the Toronto Collegiate Institute where women were relegated to one classroom in the basement [Jarvis Collegiate Institute, 1999].

EXHIBIT 2

EDWARDS, MORGAN & CO.
CHARTERED ACCOUNTANTS
TORONTO   MONTREAL   WINNIPEG

A discrete advertisement from The Monetary Times, 1930

The Edwards, Morgan firm expanded across Canada, benefiting from the "greatest economic boom in [Canada's] history" between 1900 and 1913 [Bothwell et al., 1987, p. 55]. Edwards opened offices in the financial centers of Toronto and Montreal and subsequently followed the railway-and-settlement boom across the prairies with offices in Timmins, Winnipeg (operating as Edwards, Ronald & Co.), Calgary, and Vancouver. Creighton [1984] suggested that Edwards, Morgan & Co. was the first multi-office firm in Canada and second only to the Clarkson Gordon firm in prestige among Canadian accounting firms. The latter claim may be somewhat exaggerated. Richardson [1999] identified Edwards, Morgan as the eighth largest audit firm in Canada in terms of the number of audits conducted during the period 1902-1941. During this period, the firm averaged a market share of about 2.75% of all clients. Edwards, Morgan's client list did not include any of the larger firms in Canada. For example, Edwards did not audit any of the banks, railway companies, or public utilities that dominate the list of Canada's largest companies.

The firm's clients included the Borden Company (dairy), Canada Bread Company Limited (bakery), Canada Permanent Mortgage Company (mortgages), Coast Copper Company (copper mining), the Consolidated Mining and Smelting Company of Canada Limited (copper, zinc, and lead mining), Dunlop Tire and Rubber Goods Company (tire manufacturing), Holinger
Consolidated Gold Mines (mining), National Trust Company (trust/banking), Photo Engravers & Electrotypers Limited (photographic equipment/services), Russell Industries Limited (automobiles), Joseph E. Seagram (distiller), Hiram Walker-Gooderham & Worts Limited (distiller), George Weston Limited (baker), and Wright-Hargreaves Mines (mining). The firm also audited the accounts of the Dominion of Canada for three years (see the section on government accounting below). Edwards' participation in the Methodist church community of Toronto provided links to many of his clients. Some of the leading figures in the Canadian (and, in particular, the Toronto) business community were Methodists including Ames, Cox, Eaton, Gooderham, Gundy, Flavelle, Massey, Weston, and Wood [Champion, 1899, p. 285; Sanderson, 1910, p. 394; Bliss, 1987, pp. 346-349]. These were the "merchant princes and successful businessmen" of the parish of Trinity Methodist church [Champion, 1899, p. 219]. Edwards included many of this group among his clients, particularly Weston, Cox, Gooderham, and Flavelle. Cox and Gooderham deserve particular mention due to the extended group of companies they controlled.

Cox controlled a web of financial institutions centered on the Bank of Commerce and including Dominion Securities, a stock brokerage run by Ames (his son-in-law), National Trust (with Joseph Flavelle as president), Canada Life Insurance Company, and several other smaller insurance companies [Naylor, 1975a, b]. Cox was also the lead member of a syndicate that bought the Canadian assets of the Dunlop Tire and Rubber Company of America to create the Dunlop Tire and Rubber Company of Canada. Edwards was connected to this group through his audit of National Trust and Dunlop Rubber. Joseph Flavelle, president of Cox's National Trust, was instrumental in providing Edwards' entree into government accounting (see below).

The Gooderham family developed its business based on grain milling. This venture soon diversified into distilling to take advantage of excess grain production. Ultimately, the family controlled a group of companies including the Hiram Walker-Gooderham

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5This list of clients was compiled from Houston's *The Annual Financial Review* (various editions 1902-1941), supplemented by Henderson [1984, pp. 29, 44]. The editor of this volume invited companies to submit financial statements to him which he condensed and published. This list is, therefore, unlikely to be complete, but it provides a sample of the types of firms Edwards, Morgan audited.
Worts Distillery, the Canada Permanent Mortgage Company, Manufacturers Life Assurance, Manufacturers Accident Insurance, and the Bank of Toronto [Bliss, 1987]. Edwards was connected to this group through his audits of the Hiram Walker-Gooderham Worts Distillery and the Canada Permanent Mortgage Company.

The Edwards, Morgan firm played an important role in establishing the CA profession across Canada. For example, the first meeting of the Institute of CAs of Alberta was held in the offices of Edwards, Morgan in Calgary in 1911 [Perspectives, 1985, p. 1]. Arthur Edwards, George's eldest son, was one of six charter members of the Alberta Institute. In Manitoba, the Institute of CAs of Manitoba (ICAM) had been created in 1886, but the Institute was dormant and held no meetings between 1888 and 1902 [Hoole, 1963]. The ICAM was reawakened by Edwards in 1902 through members of his firm (then Edwards & Hart-Smith) which had been recently established in Winnipeg [Neville, 1986, p. 9]. Edwards needed the support of the ICAM in his battle, described below, with the Dominion Association of CAs (DACA). W.S. Ronald, a member of Edwards' firm in Winnipeg, became president of the ICAM in 1903. Edwards became an out-of-province member that year and represented Manitoba at the DACA in 1922 [Hoole, 1963, p. 7].

Edwards' firm provided him with a network of contacts across Canada and the financial resources that allowed him to devote considerable time to the profession. The remainder of the biography deals with specific issues or events that were important in Edwards' professional life. Each of these events provided an opportunity for Edwards to enact his vision of the profession. In particular, these events show how Edwards worked to create a unified profession based on high standards of technical and moral practice. His vision, however, was not unopposed, so that these events also show Edwards to be an adept political strategist.

**FEDERAL / PROVINCIAL RELATIONS**

Canada is a federation with a central government and 13 member states (ten provinces and three territories as of 1999). The division of powers between these levels of government was laid out in the British North America Act of 1867 (now the Canada Constitution Act). The Act is ambiguous on certain matters and, as a result, there are continuing debates over matters of jurisdiction between the provinces and the federal government. For example, both levels of government have powers to incorporate companies.
This constitutional structure sets the scene for one of George Edwards' major battles and victories.

The first institutes of CAs were established through provincial legislation and accepted into membership all those who had passed the prescribed examinations regardless of their current occupation. Contrary to this model, John Mackay sought to create an association of CAs more narrowly restricted to those in public practice but with membership based on experience rather than examination. Mackay was a practicing auditor in Ontario at this time. One of his clients was National Trust where he served with George Edwards as co-auditor. Mackay sought federal incorporation of this association in 1901 but was unsuccessful. The following year with help from the Association of Accountants of Montreal and two prominent Ontario accountants, Clarkson (Edwards' former employer) and Cross, both of whom had resigned from the ICAO over a professional misconduct case [Richardson, 1990], the DACA was created.

Edwards saw the DACA as a rival to the provincial institutes, and he attempted to close down the federal body. He opposed the federal incorporation of the DACA successfully in 1901 on the strength of his political lobbying. The 1902 application for incorporation of the DACA had more institutional support, most notably from the Association of Accountants of Montreal, and he was unable to prevent incorporation on that occasion. As a result he had to change tactics and in 1903, he arrived at the DACA annual meeting with 76 applications for membership and proxy votes from Ontario and Manitoba. He attempted to use these proxies to outvote the existing 17 members. The chair of the meeting did not allow this move. In 1908, he sought legislation in Ontario that would limit the use of the CA designation in Ontario to members of the ICAO. Although the province passed the legislation, the DACA petitioned the federal government which disallowed the Ontario legislation as *ultra vires* (beyond Ontario's jurisdiction). In effect, the Ontario legislation had declared that the federal legislation authorizing a national CA designation was invalid in Ontario. This position was not allowed to stand.

Finally, under the mediation of Harry Price, president of the Society of Incorporated Accountants and Auditors of England, at the 1908 conference of the American Association of Public Accountants in Atlantic City, the groups met and peace was negotiated. The DACA became a federal body for the provincial institutes with no powers over designations, education, or standards.
George Edwards had won and in the process had created the structure now followed by all accounting associations in Canada.

The DACA was given the mandate to (1) secure the incorporation of provincial societies in provinces of the dominion where none existed; (2) assist provincial societies in securing uniform legislation for the better protection and regulation of local professional interests; (3) secure the adoption by provincial societies of uniform standards of examination and membership; (4) arrange for reciprocal privileges between provincial societies for the benefit of their members; (5) consider the question of ethics; (6) secure harmony of action on all matters affecting the common interest and generally to act in an advisory capacity to provincial societies [Edwards, 1915, p. 340].

Two aspects of this mandate are particularly noteworthy. First, Edwards succeeded in institutionalizing (in item 3) his vision of limiting entry to the profession by examination, contrary to the preferences of the original founders of the DACA. This was a key victory for those who saw accountancy as a profession rather than simply as a business. It established the principle that the skills of the accountant were to be gained through education rather than just through practical experience. Second, the mandate given to the DACA reflected Edwards' view that accounting associations in Canada should be comprehensive and noncompetitive (items 1 and 4). There would be a CA association in each province so that all public accountants would be represented, but members of one provincial association would be guaranteed membership in all others, thereby eliminating competition between provincial associations.

Edwards was a vice-president of the DACA in 1910 and became its president in 1911 and again in 1913. He announced the aim of the DACA through the slogan "one name, one standard, one aim" [Edwards, 1912, p. 86]. This slogan, Edwards volunteered, was a paraphrase of the slogan of "one of our influential church organizations," referring to the attempt of the Presbyterian, Methodist, and Congregational churches to merge. Semple [1992, p. 416] described the underlying belief of the unification movement to be that "all Christians throughout the world belonged to the same family, shared the same values and worked for a common end." It is reasonable to speculate that Edwards' ties to the Methodist church, through his brothers and father as well as conversations with the archbishop at his cottage, would have provided him with insider knowledge of the unification process. Incidentally, the
process was successful, and the United Church of Canada was created in 1925. Edwards endorsed the aims of the church unification movement as a goal for the accounting profession.

Edwards' experience with the DACA made him aware of the potential for rival designations/associations in Canada. His interaction with Harry Price is also likely to have made him aware of the situation in the U.K. where six professional associations competed for public recognition of their members. At the DACA annual meeting of 1912, he warned:

The permanency of the name by which competency in a public accountant will be designated cannot be doubted. More largely as a result of coincidence of thought, however, than of any careful planning or design on our part the name of Chartered Accountant is the name which has come to occupy a commanding place in Canada. It is not good enough to be content to accept this good fortune complacently and assume that this condition must perforce be permanent. The history of an older commercial center than ours warns us that there may be dangerous rivalries in the near future to the supremacy of the Chartered Accountant in Canada if we fail to profit by observation [reported in President's Address, 1921, p. 142].

Edwards would continue throughout his career to monitor and manage the emergence of competing accounting associations. This role is most notable in the creation of the Society of Cost Accountants of Canada, but he was also involved in negotiations to limit the charter of the Certified General Accountants of Canada to prevent them from competing directly with CAs (see below).

He continued on the DACA Council as a representative of the ICAO until his retirement in 1926. During this time he served on the "General Purposes" Committee (essentially an executive committee), the Uniformity of Standards Committee, and the Magazine Committee. The latter committee is particularly important. Edwards became the first managing editor of the Canadian Chartered Accountant (CCA) in 1911. This role gave him a vehicle to communicate the social value of accountancy to a broader audience.

Edwards worked consistently to develop the CCA as a com-
munications mechanism within the profession and, more importantly, with outside parties. In the first volume of the *CCA*, a report from the "journal committee," chaired by Edwards, reported:

> Enough has been said to justify the prediction that our circulation in the near future amongst business men and educators will far outweigh the support the publication will receive from our own members and those who compose our student societies, thereby substantially enhancing the value of the journal as a select advertising medium.

He constantly pushed to increase the frequency of publication of the journal [e.g., Report of the Magazine Committee, *CCA*, Vol. 14, 1924, p. 166]. When the Society of Cost Accountants of Canada was created in 1920, he used the opportunity to expand the *CCA* to a bimonthly publication (from quarterly) with the promise to include more cost accounting material in its pages. It became a monthly publication in 1932.

Edwards thought that the journal should be a commercial enterprise that would accept advertisements and possibly be turned over to a commercial publisher. This would allow the CAs to extend their influence and visibility by reaching a larger audience. The DACA did hire an editor to remove the burden from members but banned advertisements from the journal for a period in the 1930s. Ultimately, however, Edwards' vision of the journal as an important medium of communication beyond the CA profession did come about.

**ACCOUNTING EDUCATION**

George Edwards was first elected to the Council of the ICAO in 1890 and served as its president in 1895, 1896, 1897, and 1903. He served on the Council and on key committees continuously until his retirement in 1926. A central concern throughout his time on the Council was the education provided to CA candidates and the quality of examinations used to control entrance to the profession. Between 1903 and 1926, he was chairman of the ICAO Board of Instruction. This Board had responsibility for negotiating with proprietary schools (e.g., Shaw's Correspondence Schools) to arrange programs of instruction for CA students. Edwards was unsatisfied with the quality of the instruction being provided by
Richardson: Building Canadian Accountancy

these organizations [Edwards, 1921b] even though these schools were often run by CAs. After World War I, he entered into negotiations with Queen's University to provide courses.

The connection between CAs and universities was already in process when Edwards began his negotiations with Queen's University in 1919. The dean of McGill University in Montreal had contacted the Association of Accountants of Montreal in 1912 suggesting that some type of educational program could be arranged although nothing was ever implemented [Collard, 1980, p. 108]. The Institute of CAs of Saskatchewan entered into an agreement with the University of Saskatchewan to offer an accountancy degree in 1913 [Canadian Chartered Accountant, 1913, p. 50], and its first graduate was reported in 1914. The Institute of CAs of Alberta concluded an agreement with the University of Alberta to share responsibility for education and examinations in 1914. World War I interrupted this momentum.

Queen's University had been involved in distance education for the Canadian Bankers Association since 1914 [Gibson, 1983, p. 37]. The addition of accounting courses was a small leap for the University, but associating the University with accounting courses would add considerable legitimacy to CA training. From the University's perspective, Smails [1951, p. 7] suggested that Skelton, the head of the Department of Political Studies, was using correspondence courses to create the backbone of a commerce program [see also Daub and Buchan, 1999].

Edwards [1921a] set out eight policies that formed the basis for the ICAO's negotiation with Queen's University: (1) the program should be delivered by correspondence so that it was accessible to all CA candidates; (2) the course of study would be based on commercial textbooks rather than material prepared by the ICAO; (3) the texts would be Canadian or British in recognition of the differences between their legal and economic systems and those of the U.S. in spite of the greater availability of American textbooks; (4) the program would be offered within defined periods to allow for common examinations for all students; (5) the course of instruction would be "postgraduate" and build on a base level of literacy and numeracy; (6) the program would be limited to candidates for the CA designation; (7) the program of study would be required of all candidates for the designation; (8) there would be no optional subjects.

These policies reflect two continuing themes in Edwards' work. First, by centralizing accounting education in one program,
Edwards could more easily ensure that all CAs achieved a minimum level of competence. This was essential in order to guarantee that the CA designation would be worthy of public trust. It would also facilitate reciprocity of membership among the different provincial institutes of CAs. Second, by restricting the program to CA candidates and by retaining control over the curriculum, Edwards tried to limit access to the appropriate knowledge to those who would become members of the ICAO rather than some competing accounting association. The design of the program thus contributed to a standardization of CA licensure and the exclusion of others from public accountancy.

Edwards' policy also had an unintended positive side effect. The CA program was to use Canadian or British accounting textbooks (policy #3 above), but few existed at that time. Once the demand for the Queen's program among CA candidates was established, the faculty teaching in the program began preparing their own course materials. The ready-made market of the CA program reduced the risk to publishers of producing a Canadian book in a field dominated by texts from the larger U.S. market. As a result, the Queen's University faculty would produce some of the first university-level financial accounting, cost accounting, and auditing textbooks published in Canada [e.g; Ashley, 1931; Smails, 1930, 1933; Smails and Walker, 1926; Walker, 1933].

The Queen's correspondence program was eventually adopted by all of the provincial societies. The program continued until 1967 by which time the CAs had implemented a university degree requirement (the implementation of the degree requirement varied from 1964 to 1968 depending on the province). Candidates for the CA designation were expected to take the required subjects as part of their degree program under the new regulations. Edwards would have approved of this evolution in accounting education.

THE IMPERIAL MUNITIONS BOARD

During World War I, three of George's sons served in the Canadian Expeditionary Force in Europe. George also served the war effort as comptroller and auditor for the Imperial Munitions Board (IMB) in Canada. This dual role is a violation of modern independence rules and was recognized as unusual at the time:

In addition to Mr. Edwards being the only officer in charge of its accounts, he was also Auditor for the Ministry of Munitions, a curious but very inter-
esting anomaly. This fact however shows what confidence the British Treasury placed in him [Carnegie, 1925, p. 225].

It is interesting to consider whether or not this situation was a breach of the accounting ethics of the day. Immediately prior to the war, Edwards, as president of the DACA, had prepared a paper on accounting ethics and had distributed this paper to the provincial associations (no copy of it has been located). Other articles on accounting ethics around this period emphasize relationships among practitioners rather than issues of broader public interest [e.g., Bunnel, 1910]. After the war, Edwards continued his efforts to formalize the ethical duties of CAs. He was a member of the DACA committee that produced the association's first code of ethics in 1925. This code continued to emphasize etiquette in collegial relations but did include one clause concerning conflict-of-interest. This clause required the accountant to "inform a client or employer" of circumstances that could impair the accountant's judgment or objectivity [Crowell, 1925]. Edwards' work with the IMB would have met this minimal requirement.

The IMB was a replacement for the Shell Committee (a political committee of the Canadian government) and was intended to remove the procurement of munitions for the war effort from political considerations [Rider, 1974, p. 67]. The IMB was an agency of the British government although it operated primarily in Canada. Its head was Joseph Flavelle, a Canadian entrepreneur with interests in meatpacking and finance. The chairman was empowered to act unilaterally and could use the rest of the Board for advice but not for decision making. Flavelle was thus empowered to run the IMB as a business rather than as a government agency.

George Edwards joined the Board at the personal request of Sir Joseph Flavelle. Flavelle was president of National Trust, which was audited by Edwards, Morgan. Edwards devoted full time to the IMB between 1914 and 1918. The staff of the accounting department during this period numbered 1,200, and the IMB oversaw "1,200 Million dollars" worth of contracts [Edwards, 1925]. The British Treasury, through intermediaries in New York City, initially provided the funding for this operation. Edwards also established the accounting procedures in New York. From 1915 onwards, the operations were financed by loans from the Canadian government, Canadian banks, and the Canadian Pacific Railway. At the end of the war, George was given the additional
role of liquidator of the IMB's assets [Carnegie, 1925, p. 225].

Edwards' particular achievements with the IMB were the implementation of an inventory tracking system for materials flowing between different contractors and the introduction of continual auditing [Bliss, 1978, p. 307]. The auditing system put the IMB on a 24-hour cycle from noon to noon. Each night the records of the IMB were audited, allowing audited financial records to be available the next morning for review. These two systems were credited with reducing asset loss and improving efficiency in the entire supply system. Prior to Edwards' intervention, shells produced for government contracts had been subject to significant cost overruns [Bliss, 1978, p. 368].

As a result of this service, Edward was awarded the CBE: Commander of the Order of the British Empire. King George V created the Order of the British Empire in 1917 specifically to reward civilians and servicemen in support positions (as opposed to field positions). No records are available to trace the process by which Edwards was nominated, but it is likely to have been through Sir Joseph Flavelle and his connections with the British government.

Edwards' work with the IMB required him to work closely with the Canadian Ministry of Finance. The Canadian government and Canadian banks (with some government coaxing) provided a large portion of the funds with which the IMB would operate. This connection resulted in Edwards being called upon to undertake a number of projects for the Ministry of Finance after the war. The more notable projects were investigating the failure of Merchants Bank (1922) and the Home Bank (1923), providing advice to the Department of Finance on the audit provisions of the Bank Act (1923, 1924), and providing evidence before the Senate Committee on Banking (1923). These experiences allowed Edwards to have a significant impact on government and bank auditing in Canada.6

GOVERNMENT AND BANK ACCOUNTING

Edwards was an early proponent of improved government accounting. He began lobbying the Ontario government on legislation concerning municipal accounts in 1895. He succeeded in having the Ontario Municipal Act (OMA) amended in 1897 to

6See Beckhart [1929] and Edwards' testimony reported in the Proceedings of the Standing Committee on Banking and Business, 1923, pp. 746-771.
require that municipal auditors be Fellows of the Institute of CAs (FCA) or some other organization of expert accountants. The FCA was awarded by examination at that time, while the CA was given by a vote of members. This was the first legislation to specify a particular accounting association to fill a statutory role [Creighton, 1984, p. 131]. Creighton also suggested that Edwards' success as a lobbyist may have had much to do with his father's long-standing civil service role.

The existence of two sets of criteria in the OMA regarding appropriate auditors is neither an accident nor a failure of Edwards' lobbying ability. Edwards recognized that limiting this role to CAs would have required the CAs to accept into membership all auditors currently auditing municipalities. Edwards wanted to maintain the exclusivity of the designation. He reasoned that the public would appreciate the integrity of the CA designation and that, over time, clients would avoid unaffiliated public accountants [see Edwards, 1915, pp. 342-343]. Edwards again successfully lobbied against naming CAs as the only qualified auditors in the Trust Companies Act (1919) and the Bank Act (1923).

Edwards was able to put his concerns about the state of government accounting into action when he was appointed the auditor of the national accounts in 1921, 1922, and 1925 (see Exhibit 3) The national accounts are the responsibility of the Auditor General, a position created in 1878 to ensure that government expenditures were in accordance with legislative approvals. The role gradually expanded to include a concern with the overall financial management of government [Sinclair, 1979].

Between 1918 and 1924, the office of the Auditor General was virtually dormant. During 1918, John Fraser, the incumbent Auditor General, was on sick leave, eventually dying in office in 1919. E.D. Sutherland was then appointed as acting Auditor General, but he too developed health problems and was on leave from 1922 until his resignation in 1923. The post remained empty for a year until Georges Gonthier was appointed in 1924 [Ward, 1962, p. 162]. As a result of this series of events, the Auditor General's office had operated without strong leadership for six years.

Edwards was thus brought into an environment where "both the opposition and the government [and particularly the

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7 The appointment in 1921 was "without remuneration" [Saunders, Sessional Paper No. 2, 11 George V, A. 1921, p. vii]. The terms of appointment are not recorded for the other years.
Department of Finance] lost faith in the auditing process” [Ward, 1962, p. 163]. Although outside firms had been hired on several occasions during the 1920s for special projects, this was the first time that an external auditor had been used for the national accounts. The use of outside consultants hired by the government was protested by the Auditor General [Sinclair, 1979]. He claimed that under the act creating the position, the Auditor General was independent of the sitting government and reported directly to the Parliament. The government then had no place in arranging for outside experts to interfere with the operations of the Auditor General.

In spite of the internal opposition to Edwards' role in the preparation of the national accounts, he was able to have an impact on their presentation. One of Edwards' key contributions was to reformat the national accounts to conform to current practice in business and banking in particular [Saunders, 1921, p. vii]. The original terms of reference of the audit were limited to verification of the conformity of the public accounts with the government's books. Edwards, Morgan & Co. was also engaged in 1922 to review the government's assets and the procedures in place in different departments for safeguarding revenues.

EXHIBIT 3
Audit Certificates for the Dominion of Canada

We have examined the Balance Sheet of the Dominion of Canada (shewn herewith) as of March 31st, 1920, also the Expenditure and Revenue Account for the fiscal year ended on the said date, and have verified the same by reference to the Dominion Ledgers. We certify that the above-mentioned statements accurately set forth the matters therein referred to, and are as shewn by the said books.

EDWARDS, MORGAN & CO.,
Chartered Accountants.
Ottawa, December 1st, 1920.

We have examined the Balance Sheet of the Dominion of Canada as at March 31, 1924, and we certify that the Balance Sheet conforms to the Balance Sheets of previous years in not including in the Net Debt of the Dominion, issues of the Canadian National Railway Company and Companies included in its System, which carry the Guarantee of the Dominion of Canada. Such Guaranteed Issues are shown year by year as Indirect Liabilities.

GEO. EDWARDS,
Of the firm of Edwards, Morgan & Co.
W. GARTH THOMSON,
Of the firm of Peat, Marwick, Mitchell & Co.
Ottawa, Canada, 27th January, 1S25.
In 1925, Edwards again audited the national accounts but this time with a co-auditor (no audit statements appear for 1923 or 1924). The change from a single auditor to co-auditors is consistent with Edwards' lobbying on the revisions to the Bank Act of 1923. Given that Edwards used financial reporting in the banking industry as a model for reformatting the national accounts, it is likely that he also imported the new audit requirements from the Bank Act into this assignment. The co-auditor in 1925 was Peat Marwick Mitchell, a firm with an established reputation in bank audits [Cowperthwaite, 1986].

Beckhart [1929, p. 439] gave Edwards credit for the changes in the audit provisions of the 1923 Bank Act. Specifically, the act required that auditors must be experienced members of an association of accountants, that the audit be conducted by two people of different firms, and that the auditors should not simultaneously provide other services to the bank while acting as its auditor. Edwards' views were in opposition to those of the Canadian Bankers' Association which favored the status quo. G. Clarkson, son of Edwards' former employer and teacher, also gave testimony at the hearings. He and Edwards were at odds over the need for bank auditors to refrain from providing any other services to their banking clients [Beckhart, 1929, p. 439]. Clarkson claimed that there was so little profit in the audit that his firm would have to withdraw from bank audits if they were denied the opportunity to provide other services. He estimated at the time that 4% of his business was comprised of bank audits, while 25% of his business was other work on behalf of the banks.\(^8\) Clarkson lived up to this promise and withdrew from bank audits after the act was enacted [Little, 1964, p. 26].

In testimony regarding the Bank Act, Edwards was asked if he had ever served as a bank auditor. He answered, "no." His expertise in banking stemmed from his work preparing a report for the Minister of Finance on the failure of the Merchant Bank. This engagement, in turn, grew out of his work as auditor of the government accounts. He also argued that his expertise in this matter was "the result of long study of relationships subsisting between members of my profession and their clients, and the standards of competency and conduct in a professional sense, which entitles them, as a class, to public confidence" [Canada, 1923, p. 764].

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\(^8\) Canada, *Proceedings of the Standing Committee on Banking and Business* [1923, p. 765].
argued that independence of the auditor from bank management was a necessary condition for shareholders to have confidence in bank financial statements. He also thought that mandatory auditor rotation would allow management to change auditors periodically without undermining depositor confidence in the bank. Auditor rotation would also ensure that overfamiliarity between the auditor and management would not impair auditor independence. Although these provisions were opposed by the Canadian Bankers' Association and other prominent auditors, Edwards' credibility with the Ministry of Finance and government proved decisive in allowing his vision of the auditor's role to be enacted.

Edwards also investigated the Home Bank failure in 1923. He gave evidence on his finding to the Royal Commission that investigated the failure in 1924 [McKeown, 1924, pp. 491-522, 539-551]. Clarkson also provided evidence to the Royal Commission as liquidator of the failed bank. One of Edwards' key findings in this case was that the Home Bank was the only bank at that time not audited by a CA. He used this circumstance to impress upon government and bank officials the value of CAs in society [Richardson and Lew, 1992]. Interestingly, George Gonthier, who was appointed Auditor General in 1924, was the first CA to hold the position [Ward, 1962].

THE DIVISION OF LABOR IN ACCOUNTING

In his presidential address to the DACA, Edwards [1912] spoke of the Boer War and England's "mistake" in allowing Dutch colonies to develop in South Africa. He drew members' attention to "the truth that allies are better than neutrals, for some day neutrals may become a menace." Further he predicted, by analogy, "that those of our Canadian Societies which have been tolerant or neglectful of the growth of independent professional elements in their very midst will presently reap the harvest in the form of organized antagonism to our hopes and plans for a united accountancy profession in Canada." His vision of a unified accounting profession, however, was challenged by the diversity of the work locations and tasks that accountants undertake.

Edwards' resolve to eliminate organized opposition was soon put to the test with the application of the Certified General Accountants Association of Canada (CGA) for a federal charter in 1913. The CGA originated in 1908 as a technical self-study group of Canadian Pacific Railway accountants. Gradually this group grew, and members began to seek a way to publicly acknowledge
their accomplishments. Initially they sought a charter that would allow them to grant a designation similar to the CAs but without the requirement of an apprenticeship in public practice. Edwards intervened but withdrew the opposition of the CAs in return for informal assurances that the CGA would limit itself to the interests of "employed accountants" (i.e., both financial and managerial accountants but not those in public practice) and would not grant a designation. Edwards had thus negotiated for the CGA to be neutral with respect to his ambitions in public accounting. By 1920, however, the membership of the CGA had grown to include public accountants, while a provincial charter had been obtained in Quebec that permitted the group to hold examinations and grant a designation. Edwards regarded this as an abrogation of the original agreement [Edwards, 1921b]. The neutrals had become a menace in Edwards' eyes.

The division of labor between public and salaried accountants (essentially a division between the preparation and the audit of financial statements) was not the only source of challenge to Edwards' vision of a unified profession. There was also a growing body of accountants concerned with costing and managerial uses of accounting information. In the U.K. (1919) and the U.S. (1919), associations of cost accountants were formed independently of the established accounting associations with ambiguous jurisdictional boundaries. In Canada, the CGA was the obvious association to represent cost accountants since its membership already included many accountants practicing as cost or management accountants.

Edwards' experience with the IMB had made him aware of the variability of costs across manufacturers and the poor state of cost control in many instances. Edwards was concerned both with the need to improve the effectiveness of cost accounting practice and to prevent the creation of another accounting association to compete with the CAs [cf. Edwards, 1921b]. The examination and apprenticeship requirements that the CAs had carefully crafted to control entry to public accounting could not be changed to allow the entry of cost accountants into CA institutes. But, at the same time, Edwards could not allow the CGA to benefit from this emerging branch of accountancy by gaining more members and a stronger mandate. The solution to these concerns was the creation of an association on terms acceptable to the CAs.

In 1920, the president of the DACA called on the provincial CA institutes to create a new association for the benefit of cost accountants. The eight incorporators of the Society of Cost
Accountants of Canada were the eight provincial presidents of the institutes of CAs chaired by Dilworth, a partner with the firm Clarkson, Gordon, Dilworth and Nash. At the inaugural Board of Trustees meeting, George Edwards emerged as the first chair of the Society ([Canadian Chartered Accountant], 1920, pp. 31-34, 116-119). It is likely given his sudden appearance in this capacity that it had been George Edwards, working behind the scenes at the ICAO and the DACA, who had orchestrated the creation of the Society.

This organization would be federally incorporated but, as Edwards had shown through his battles with the DACA, would not have the power to hold examinations or establish a designation. The organization would be a mechanism to allow cost accountants to share information and improve their craft, but it would not become a rival to the CA designation. Soon after Edwards stepped down from the presidency in 1924, however, the Society started to debate offering "certificates of competency." The Society began holding examinations in 1927 [Allan, 1982, p. 21] and, after incorporating provincially, created the Registered Industrial Accountant designation in 1941 (this designation became Certified Management Accountant in 1976).

Edwards' work with the Society of Cost Accountants of Canada was the last major project he would undertake before retiring from involvement in professional affairs in 1926 at the age of 65. The last five years of his professional life were marked by honors for his achievements. These included an honorary doctorate from Queen's University (1922) and life memberships in the Institute of CAs of Manitoba (1926) and the Institute of CAs of Alberta (1927). In 1926, a dinner was held at the University of Toronto to mark his retirement. Over 200 prominent members of the accounting and business communities of Canada and the U.S. attended. To commemorate the event, a painting of Edwards was commissioned and now hangs in the library of the Institute of CAs of Ontario.

CONCLUSION

Of my ability to adequately serve and promote the interests and welfare of the Chartered Accountants in Canada I have had serious misgivings; of my

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9Although there are now ten provinces, a CA association was not created in Prince Edward Island until 1921, and Newfoundland did not become a Canadian province until 1949.
deep concern for those interests and my devotion to your cause I have never had a moment’s doubt. I hope that your verdict may be that some progress has been made [Edwards, 1912, p. 81].

George Edwards served the Canadian accounting profession for 36 years from his first election to the ICAO Council in 1890 until his retirement from professional politics in 1926. He was a strategist and a tactician. He had a vision of accountancy as a profession rather than simply as a business, mandating a single standard of practice reflected in educational programs, systems of examination, and codes of ethics. He worked to establish the CA profession as the sole representative of public accountants in Canada with a responsibility for maintaining the standards of practice and the usefulness of its members to society. He was vigorous in protecting this vision from others and in creating the infrastructure necessary to support it. His name is prominent at the initiation of key changes in the profession but, after the structure had been put in place, he operated in the background. For example, after his stints as president of various associations in which he was involved, he frequently served on key committees, working to ensure the implementation of initiatives he had put in place.

His legacy includes the federal/provincial structure of the accounting profession in Canada, university-based accounting education, a professional journal, the division of labor between management and financial accounting associations, and a vision of the place of CAs in Canadian society. Although there is no question of Edwards' influence on the profession, several aspects of his vision were unsuccessful. He was unable to prevent the creation of alternative accounting associations in Canada. At the time of his death, the CPA (Certified Public Accountant), APA (Accredited Public Accountant), RIA (Registered Industrial Accountant) and CGA (Certified General Accountant) were established designations in Canada. He also lived to see the entry of women into the profession, albeit after his retirement from professional politics. In 1929, the Privy Council ruled that the word "person" in Canadian law referred equally to men and women. This ruling opened all opportunities created by statute to both sexes. The professions that enjoy statutory protection of their designations and practice rights were henceforth unable to prevent women from entering the profession. Edwards saw both of these events as undermining the status of the profession.
In 1926, at age 65, George Edwards retired and ceased all activity within the profession. It is hard to imagine how someone so intimately involved in the development of the profession could end his connection so abruptly. It suggests that Edwards saw his work in the profession simply as part of his job, not a calling or a crusade, but simply something that had to be done and done well. At age 65 it could be that George simply wanted to enjoy his success and spend more time with his powerboats (a passion of his). Or perhaps it is as George Edwards said at his retirement dinner in 1926: "Our profession is now upon an assured foundation and it is long since it needed any help of mine to ensure its steady progress."

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ANSON O. KITTREDGE: EARLY ACCOUNTING PIONEER

Abstract: Leafing through early accounting journals from the last two decades of the 19th century, accounting historians and enthusiasts piece together the history of accountancy in the U.S., yet pay little attention to the editors of these journals who at times almost single-handedly willed their existence, clearing the road for modern accounting journals. Anson O. Kittredge, who was probably the most outstanding and influential editor of the 19th century, was also an author, teacher, CPA examiner, innovator, practitioner, and organizer.

Accountancy should not forget Selden R. Hopkins its first editor or Anson O. Kittredge his greater successor [Webster, 1940, p. 11].

The last quarter of the 19th century in America marked the beginning of a period of substantial economic change, providing an environment conducive to the establishment of the new profession of public accountancy. The development of the vast railroad system accelerated the nation’s transition from an agricultural to an industrial economy and resulted in rapidly growing urban centers. The industrialization brought about a complex, new business world with its separation of the owners from the managers of capital, resulting in the rise of a professional managerial class. The unsatiated demand for capital brought much British investment and, in tandem, British-trained accountants to the U.S. The economic changes of the period necessitated the transition of the accounting profession from bookkeepers to professional accountants.

Acknowledgments: The suggestions of Richard K. Fleischman, Richard Vangermeersch, and the rest of the reviewing team are gratefully acknowledged and appreciated, as well as the editing provided by Gina Simmons.
There were many U.S. accounting pioneers who helped the accounting profession develop during this transition period. Anson O. Kittredge, editor, author, teacher, CPA examiner, and practitioner, was one of the main players who contributed to the development and advancement of the accounting profession in the last quarter of the 19th century. Kittredge, who served as the editor of some of the first accounting and bookkeeping journals in the U.S., also published numerous articles on accounting theory and practice. He was one of the first accountants to describe the importance of accounting for inventory quantities and prices in manufacturing firms and is credited with the development of the first card-ledger system. (He may have been the first "systems" person in accounting.) Kittredge was instrumental in the organization of the New York Institute of Accountants and Bookkeepers [Romeo and Kyj, 1998, p. 35] and played a major role in organizing the American Institute of Bank Clerks [Dayton Daily Journal, 1903]. Throughout his work as an editor, he emphasized the "American accounting system," recognizing the differences between the American and British ways of performing accounting that were necessary in the rapidly growing U.S. economy. He was one of the lead accountants in the promotion of the "science of accounts."

The goal of this paper is to establish the contributions of Kittredge to the accounting profession and to the early accounting and business journals he edited. After a brief introduction to his early background, Kittredge’s written contributions to accounting theory, practice, and education as an editor, author, and practitioner will be addressed. Second, Kittredge’s contribution to cost accounting, specifically his analysis on the classification and application of factory overhead, will be presented.

An analysis of Kittredge’s contribution to accountancy was derived by examining the book he wrote with J. F. Brown, The Self-Proving Accounting System (1897), and the accounting journals he edited: The Office (July 1886 to May 1891), Business (June 1891 to October 1896), and Accountics (April 1897 to September 1900), as well as a journal for which he may have been a silent editor, Commerce, Accounts and Finance (January 1901 to May 1903). Norman Webster’s archives at the AICPA library were also

1A short list of other noted accountants in the 19th century includes Charles E. Sprague [Mann, 1931], Charles W. Haskins [Jordan, 1923], Selden Hopkins [Webster, 1940], and S.S. Packard [Manao, 1996].

2This opinion was expressed by Webster [1954, p. 109].
After a brief introduction, this paper will concentrate on Kittredge's role in accounting.

EARLY BACKGROUND

Kittredge was born on February 19, 1848 in Dayton, Ohio. Until the age of 13, he attended public grade school, after which he received most of his instruction from tutoring sessions by local clergymen. After training at Miami Commercial College (Ohio), he was employed at 18 as a bookkeeper in the Greer & King Foundry General Store [Dayton Daily Journal, 1903]. This proved a valuable experience for the future writer who was to publish a series of articles on foundry bookkeeping systems. While working at Greer & King, he developed what is regarded as the first card-ledger system. His adult life can be divided into three distinct areas, in all of which he achieved considerable success: the sheet-metal industry, the accounting profession, and the banking industry.

Kittredge left the stove foundry to start a sheet-metal business, which was ultimately incorporated as the Kittredge, Cornice, and Ornament Works. There he patented many sheet-metal machines. Between 1874-1878, Kittredge published his first journal, The Sheet Metal Builder, which he later sold to publisher David Williams. In 1878, he left Ohio and settled in New York City, where he became editor of The Metal Worker and Carpentry and Building. During this period of his life, he wrote The Metal Worker Pattern Book, which became the standard among sheet-metal workers for many years [Commerce, Accounts and Finance, 1903, p. 10]. His experience as an editor for the metal-industry journals provided him with a strong background for establishing and editing journals in accounting. His first article on accounting, regarding foundry bookkeeping, was read before the National Association of Stove Manufacturers on July 22, 1880, and published in the October 26 and November 9 issues of The Book-Keeper.

Webster published numerous historical articles on accountancy, The Ten Year Book of the New York State Society of Certified Public Accountants, and the seminal work, The American Association of Public Accountants 1886-1906. He served for many years as chairman of the Committee on History for the American Institute of Accountants (predecessor of the AICPA) and as a member of the NYSSCPA's Committee on History. His archives on accounting history were given to the American Institute of Accountants Foundation. Webster was known as the "Historian of American Accountancy" [Committee on History, 1957].
From the early 1880s until the time of his death, Kittredge directed most of his energies to the accounting and finance professions, starting as a founding member of the Institute of Accountants (IA) in 1882. At the time of his death on March 23, 1903, Kittredge was president of the Account, Audit and Assurance Company of New York City and secretary of the American Institute of Bank Clerks [Commerce, Accounts and Finance, 1903, p. 9].

EDITORIAL WORK AND PUBLICATIONS

During the later part of the 19th century, a sizeable portion of business education was provided by periodicals. The early accounting journals edited by Kittredge paved the way for accounting journalism in the 20th century. Webster [1940, p. 11], the noted accounting historian, evaluated Selden R. Hopkins and Anson O. Kittredge, the two pioneering accounting editors of the 19th century, and found Kittredge the greater of the two [Webster, 1940, p. 11]. Kittredge's contribution as an editor and author started early in his life with editorial work in several trade journals, among them The Iron Age, The Metal Worker, Sheet Metal Builder, and Carpentry and Business.

As mentioned previously, Kittredge's first article in an accounting journal appeared in The Book-keeper, a periodical to which he continued to contribute over its life. He began his own publication, The Office, in June 1886. Five years later, The Office was purchased by David Williams, and its name was changed to Business. In 1893, Kittredge incorporated the Kittredge Company Publishers, which reacquired Business from Williams. However, the Kittredge Company was underfunded, and Kittredge was forced to sell the journal back to its former owner [The Bookkeeper, 1896, p. 7]. Due to personal conflicts, Kittredge resigned as editor of Business and a short time later became the editor of Accountics. 4

The Office’s treatment of accounting was based on the “science of accounts as a branch of mathematics,” which was the philosophy of the IA of which Kittredge was a founding member. Although The Office emphasized no affiliation, it had a special section for the IA. In latter issues, however, this section was expand-
ed to include other accounting organizations as they became established.5

*Business* was a continuation of *The Office* under a new name. The rationale for using the name *Business* was that, what transpires in the office is more than accounting or bookkeeping and can best be summed up in the word “business” [Kittredge, 1891]. Therefore, Kittredge’s editorials in *Business* from June 1891 to October 1896 included numerous topics: praise of hard work, objections to the metric system, the usefulness of the Bureau of Business Information and Services to businessmen, the need for trade journals, criticism of American roads, immigration, the importance of bank examiners, the causes of the financial recession of 1893, women in business, shortcomings of the public school systems, the banking system in the U.S., politics and the business climate, the need for a national accounting convention and a national organization, the effect of war upon business prosperity, the need for business education, and the need for a single gold standard.

*Accountics* was a monthly magazine published from 1897 to 1900, devoted to the science of accounting.6 It was also the first official journal of an accounting organization in this country (the IA). Its initial issue in April 1897 stated as one of its objectives to “impress upon the business public the fact that accounting is the vital element of business, and that for this reason it is entitled to a degree of recognition and to a breadth of use that has never yet been accorded to it” [Kittredge, 1897a, p. 16]. Being the official publication of the IA, *Accountics* was devoted almost exclusively to accounting and was used as a vehicle of communication and

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5 The Institute of Accountants and Bookkeepers, founded in New York City in 1882, was one of the earliest recorded efforts to establish the accounting profession in the U.S. The name was officially changed in 1886 to the IA. See Miranti [1990] and Romeo and Kyj [1998] for more information on the IA.

6 Charles Sprague, the major proponent of the science of accounts, defined “accountics” as “the science which treats of accounts and the art of keeping, verifying, examining and classifying them” [Kittredge, 1897a, p. 19].
instruction for accountants.\(^7\) *Accountics* set out to bring to the forefront much that is distinctly American in accounting practice [Kittredge, 1897a, p. 18]. Starting in 1897, Kittredge also edited *Lawyer and Creditman* [Webster, 1940, p. 11].

Throughout his editorials and articles, Kittredge emphasized the phrase "American accounting." American accounting was a system that had developed as a result of the swiftly growing conditions of American business. Consequently, significant differences existed between American and British accounting practices. American railroads used different locomotives and different administration practices than the British [Kittredge, 1898a]. British accounting practices had to meet the requirements of the Company Acts, whereas accounting practices in America could be specifically adapted to American conditions and requirements. Kittredge also understood the need for independent audits, which were required in Great Britain, and presented editorials and articles on the value of an independent audit. As early as 1888, he reprinted in *The Office* [Kittredge, 1888, p. 35] a lecture on the importance of auditing and auditing procedures presented by F. W. Pixley before the Chartered Accountants' Students' Society of London. Kittredge's journals included articles on specific issues in accounting, among them a series on cost accounting in different industries, conversion of partnership books, changing from single to double entry, and the history of accountancy. During the last few years of writing in *Commerce, Accounts and Finance*, he emphasized the proper classification of accounts, preparation of the balance sheet, and profit and loss statements for various types of businesses [Kittredge, 1901a, 1901b, pp. 1, 8, 1901d]. In the same journal, Kittredge discussed the differences between a bookkeeper and an accountant [Kittredge, 1901c].

**Science of Accounts:** Throughout his 14 years as editor, Kittredge's journals included numerous educational articles on the science of accounts. McMillan [1998, pp. 25-28] acknowledged Kittredge to be one of the leading forces advocating the science of accounts in the U.S. and documented evidence on Kittredge's view of accounting as a real science in his 1896 arti-
icles. A few years later in an article written in the February 1900 issue of *Accountics*, Kittredge [1900a, p. 35] differentiated bookkeeping and accounting in terms of art and science:

> Again, as a conclusion following upon a careful survey of the field, I am led to believe that, as a rule, we have far too much bookkeeping and altogether too little accounting in our offices. Bookkeeping is the art, the method, the embodiment of the plan, the practice. In contradistinction, accounting is the science, the analysis, the classification, the scheme or plan in the abstract.

The proponents of this new school of thought, mostly elite members of the IA, believed accounting to be a real science. This school of thought contributed to a greater understanding of accounting and was incorporated into the new accounting programs that developed in the U.S. in the early 20th century, starting with the New York University School of Commerce, Accounts, and Finance in 1900. Miranti [1990, p. 73] discussed how British professional values did not displace the "science of accounts" as a normative model for professionals in the U.S. until after the deaths of Charles Haskins and Anson Kittredge in 1903.

**Books and Articles:** Kittredge may have been one of the first to emphasize accounting systems. His book, *The Self-Proving Accounting System*, coauthored with J.F. Brown, introduced the idea of using balance sheet ledgers to record transactions. This system was an early type of perpetual accounting system, which allowed balance sheets to be readily available to management at all times. Previous to this publication, a balance sheet would have to be prepared from scratch, a process which was difficult to complete effectively and efficiently. Use of the ledger to prepare financial statements allowed businesses to continue with normal, everyday operations instead of closing down the business to determine the assets, liabilities, and profits during a given period of time [Kittredge and Brown, 1897]. No book or system in the U.S. had advocated this method previously. It combined bookkeeping and business administration with mechanical features invented by the authors. The entries were posted directly to the ledger, which consisted of wide and narrow pages so that an ongoing balance sheet was created through the postings. The system...
used a chart of accounts with major headings included on the balance sheet, as well as cost accounts.

The pamphlet *Branch House Auditing* [Kittredge, 1897b], an expansion of an article with the same title that appeared in *Accountics*, examined the reporting system employed at the Pope Manufacturing Company to control its departments by using weekly and monthly reports of transactions from branch offices to the home office. It reinforced the importance that Kittredge placed on in-house auditing and independent auditing. He also wrote *A System of Cost Records for Foundry Work* [Kittredge, circa 1886] which demonstrated the type of accounting systems employed in manufacturing firms. During his days as the editor of *Accountics*, Kittredge [1898d] put together a booklet of formulas entitled *Accounting Specifications and Formulas*, which was free to the readership of the journal.

At the time of his death in 1903, Kittredge appears to have been involved in writing a series of five books advertised in the journal *Commerce, Accounts and Finance: Tools of Business, Elements of Bookkeeping, Balance Sheet Accounting, Auditing, and Business Organization and Administration*. The books were supposed to have been produced under the direction of the Publication Committee of *Commerce, Accounts and Finance*. The committee included nine individuals, among them Kittredge, although he was not listed as chair. In Kittredge’s obituary in the April issue, the following explanation was given:

> Owing to the sudden death of Mr. A. O. Kittredge, who had in personal charge the preparation of the manuscript for the five books...the publishers are obliged to announce that the production of the books will now be indefinitely postponed [*Commerce, Accounts and Finance*, 1903, p. 10].

These books were never published, a fact which leads one to conclude that Kittredge was to have been the primary author.

Many of Kittredge’s articles indicated an insight into accounting many years ahead of his time. For example, in an 1892 article on newspaper accounting, Kittredge [1892] suggested using a liability account for subscriptions received but not yet earned:

> That subscription received should be credited to an account belonging to liabilities, so far as classifications in the books of the establishment are concerned, and that month by month there should
be taken from this account an amount corresponding to the fraction which has been sent of the papers which have been paid for.

However, Kittredge realized the difficulty of implementing a plan for each individual subscriber as outlined above and suggested allocating the amounts to revenue and liabilities on the basis of a more pragmatic aggregate total:

Instead of dividing the individual subscriptions as they come to hand into 12 equal parts, crediting each separate part to the account of the monthly number to which it belongs, we may by a kind of calculation reach an amount in a single sum to be taken from the amount of subscriptions collected or charged.

A list of Kittredge’s articles in business periodicals, accounting articles in nonbusiness periodicals, and books is included in Appendix A.

CONTRIBUTIONS TO COST AND SYSTEMS ACCOUNTING

Historians have not acknowledged Kittredge’s contribution to cost accounting.8 His experience in the sheet-metal business gave him valuable insight into cost accounting. Based on this experience and his observations as a practicing accountant and editor, Kittredge developed his position over a period of time from 1880 to 1903. His evolution in cost classification can be seen in his writings over the years.

Initially, Kittredge, like most of the accountants of his time, did not clearly classify costs, but he did understand the necessity of including all costs in accounts. In the November 9, 1880 issue

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8Garner [1954], Wells [1978], and Sowell [1973] all mentioned the British team of Garcke and Fells who described practices of allocating overhead costs in 1887. Garner and Wells claimed that these practices were not followed consistently by English and American writers. However, they did not reference any 19th century American periodicals as part of their bibliographies. They were probably not aware of contributions of American accountants other than those Americans who wrote about cost accounting in books or made presentations to the American Society of Mechanical Engineers. This is the reason why Garner found that developments in manufacturing accounting were mostly proposed by engineers. Thus, he was not aware of the contributions to manufacturing accounting by Kittredge, who was trained as a bookkeeper.
of *The Book-keeper* in an article on foundry bookkeeping, Kittredge [1880, p. 130] wrote, "Everything that concerns the cost of the manufactured goods belongs in these columns [journal columns in the books of stove manufacturing]." He continued that "for the sake of analysis it may be desirable to keep an account with pig iron, coal, labor advertising, interest, discount, taxes, insurance, office expenses, etc." Kittredge kept these accounts separate and distinct for more complete classifications:

They are all represented on the journal, however, by these sets of columns. The footings of the cost items are posted to a general account of the same name in the general ledger in the same manner as the footings of the 'accounting receivable' column already described. The total cost to date of the manufactured product is always represented by the balance in this account, while an analysis of the cost may be obtained by an examination of the nominal accounts comprehended by it under whatever names they may be kept.

Kittredge initially lumped together all the indirect costs, including selling and administrative, to determine the cost of the goods produced.

A few years later in 1886, Kittredge published a series of articles in *The Office* by Henry Metcalfe delivered before the American Society of Mechanical Engineers and the IA concerning the recording and allocation of materials and labor in a manufacturing company. Metcalfe [1886, p. 64] recommended the allocation of indirect costs as explained in the following paragraph:

All the expenses which the head of a department cannot assign to a special job, and the material that he cannot account by inventory, remain of necessity charged to his department, and so constitute a general expense account representing with his share of power, rent, insurance, depreciation, taxes, etc., the cost of the facilities for the performance of work in his department since the last inventory, say a year ago. The total expense account for a department divided by the number of days' labor done in that department during the same period, gives the cost of facilities per day's labor therein; this quotient is called the cost factor.
of that department. The yearly cost factor, corrected by experience and applied to jobs done in the ensuring year, gives their most probable share of the facilities they enjoy, and added to the net cost of the labor and material they consume, gives their most probable actual cost, balancing again in advance the account for operating expenses.

Metcalfe emphasized the concept of indirect expenses as divided into variable and fixed in his book, *The Cost of Manufactures* [1885], but he did not mention sales expenses and other general expenses of the firm. Garner [1954, p. 123] explained that, since Metcalfe usually wrote about accounting for government workshops, there was no need for expenses connected with sales. Metcalfe [1886, p. 30] himself stated that he was unfamiliar with the commercial side of business.

Kittredge learned from and expanded on Metcalfe's work. Writing at approximately the same time, he advocated the inclusion of only indirect manufacturing costs in the general expense account included in the costs of goods sold. Kittredge described a system of cost accounting used by Hopson & Chapin Manufacturing of New London, Connecticut [Kittredge, 1886b]. He detailed the accumulation and recording of costs as materials pass from station to station on tickets, with job cards for labor, and stressed the need to take into account rent (return on capital), cost of power, superintendence, fixed charges, pattern work, and an allowance for lubricating oil and sand on a daily consumption basis to determine product cost. Fixed expenses were considered arbitrary in character, prorated based on the number of days and applied on a daily basis. Kittredge advocated this to be more useful for comparison of costs on a daily, monthly, or yearly basis. Advertising or office expenses were not mentioned as part of the cost of the product.

In the 1897 book, *The Self-Proving Accounting System*, Kittredge's understanding of cost classification had evolved to the point that he specified the distinction between cost of goods sold and the expenses of doing business. Both the cost of goods sold account and the expenses of doing business would then be closed to the loss and gain account [Kittredge and Brown, 1897, pp. 44-45]:

Very little thought will be required to show that the expenses of doing business are entirely dis-
tinct from the cost of goods, and a little additional reflection will show that whatever affects the cost of merchandise in itself should be debited to the Buying Account [inventory account].

In chapter two of the book, "Classification of Accounts," he defined the "manufacturing account" as one that was to be debited with all costs incurred in the production of goods. The function of the manufacturing account was to keep track of the costs of goods produced and to turn them over at cost to the "buying account" upon completion. When items were sold, the buying account would be credited and the "selling account" debited with "goods sold at cost prices" (cost of goods sold).

The fifth chapter, entitled "Manufacturing," contains the underlying principles of the manufacturing account and how the records should be managed. Kittredge stressed that accounts should be set up to show costs and not to look for profits that result from sales. The account should show the costs of manufacturing and be useful for a comparison of production costs with the price of purchasing the same good from the outside. He presented a manufacturing account, the equivalent of today's work-in-process, to accumulate costs until the product was finished. Upon completion the costs were moved out to the buying account (finished goods) from which goods were sold. The balance in the manufacturing account should represent the "goods in process of construction" and not yet charged off [Kittredge and Brown, 1897, p. 76].

In explaining the manufacturing account, Kittredge advocated four subdivision accounts - materials, labor, general expense with "superintendence, rent, power and other general expenses which have to be spread over the product in determining the cost," and depreciation. He presented the use of a percentage plan of a predetermined rate to allocate general factory expenses (overhead). Kittredge considered the foundation on which the percentage was based (cost driver) to be of considerable importance and advocated the use of one that did not vary in price from year to year. Therefore, he advocated the use of labor costs as they were more constant than material costs [Kittredge and Brown, 1897, pp. 78-79; Kittredge, 1899, pp. 63-65]:

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9 In several places that specifically related to cost accounting, Kittredge referred to "leaving to another volume a complete exposition." Another volume on cost accounting was never published, perhaps due to Kittredge's unexpected and untimely death.
It is the generally accepted opinion of accountants everywhere that labor being the least variable of all the elements of entering into the cost of product, is the best foundation on which to spread general expenses [Kittredge, 1899, p. 63].

To the general expense account, or “dead account” as Kittredge referred to it at times, he debited rent, power, insurance, watchmen’s salaries, superintendence, time clerk, and all other items of expense “that cannot be properly apportioned among the orders.” These were then allocated on a percent basis [Kittredge and Brown, 1897, pp. 79-80]:

The percentage of dead expenses determined by the figures above presented during the past year was 20 per cent - that is, the dead expenses cost one-fifth as much as the amount of the pay-roll. We therefore add arbitrarily to the items of cost shown by order No. 99, an amount equal to one-fifth, or 20 per cent, of the amount of labor which is shown to have gone into the order, or $20.

The under or overapplication was to be debited or credited to a loss and gain account (p. 81). A separate depreciation account for plant and machinery was kept from which depreciation was allocated in the same manner as general expenses.

Kittredge also realized the problems that existed with the old merchandise account, which was apparently used for two sets of values in manufacturing firms. He addressed this issue in his 1897 book with Brown and in several of his articles that followed. In an October 1898 article in Accountics, entitled “The Merchandise Accounts,” Kittredge [1898b] pointed out the problem with the old merchandise account:

Its balance is an amount which represents goods on hand, minus the profit made on what has been sold; or an amount consisting of the sum of the goods on hand, plus the loss that has been made on what has been sold. ...What bookkeeper, with such a hodge-podge of an account before him, is able to tell from the amount appearing as the balance in the merchandise Account in the monthly...
trial balance what it really represents? 
...As our books are usually opened and conducted, there is no account with stock and stores, but all is dumped into merchandise Account, ...

In a presentation to the Cincinnati Manufacturers’ Club in December 1898, concerning the evolution of cost accounting as well as its underlying principles [Kittredge, 1899, p. 4], he again mentioned the problem of integrating cost accounts with financial accounts:

So great is this difficulty that in many cases business men appear to entertain the idea that cost accounts are something separate and distinct from the regular accounts of the business, that cost accounts are something which cannot be made a part of the regular accounting system, but instead are a separate and distinct effort, something necessary to be done by reason of the information afforded, but something in which those who have charge of the general accounts of the enterprise have no particular concern.

I am disposed to take a different view of the case. I am disposed to believe that the general system of the accounts of any business should include everything that had to be recorded concerning that business, whether it occurs in the factory, in the salesroom, in a branch house, or in the main office.

As a solution, Kittredge proposed the integration of cost accounts with financial accounts and the separation of all the accounts of any business into two grand divisions—the balance sheet and the profit and loss statement [Kittredge and Brown, 1897, pp. 25-27; Kittredge, 1898b, 1899].

The second major point made in Accountics is the importance of net income. In a time period when the balance sheet was the most important statement, Kittredge [1899, p. 5] also emphasized the importance of net income:

When the revenue is considerably less than the expenses there is trouble ahead ...As long as the profits of the business are greater than the expenses very few care particularly about the rela-
tive standing of assets and liabilities.

In his book and in several articles, Kittredge displayed a complete chart of accounts, which, except for a few differences in terminology (e.g., he used the term “active” instead of “current”), could have easily been used by a 20th century manufacturing concern. He is one of the accountants who brought accounting into the 20th century as noted by the following passage in the same article:

The day has long since gone by when any dark corner was good enough for the bookkeeper; when any cheap book that could be picked up at the corner stationer’s was good enough for the accounts; when the ledgers of one business were exactly like the ledgers of every other business, and when bookkeeping was bookkeeping, irrespective of the line of industry [Kittredge, 1899, pp. 64-65].

Reporting on Kittredge’s address on “Accounting for Cotton Mills” before the New York Chapter of the Institute, the trade magazine Furniture Trade Review [Kittredge, 1900c] wrote:

We reproduce the address in substance because the system of accounting described therein is applicable not only to cotton manufacturing but to the making of carpets, upholstery goods, and in fact, all manufacturing business. The general system of accounting referred to in the address is one that has recently been put into operation by two very prominent cotton mill corporations in the northern part of the country and by another in the South. This system has been adapted to the requirements of various other industries, and is in use in many of the largest establishments throughout the nation, from bicycle factories to engine works, and from publishing concerns to department stores.

No wonder Frank E. Webner, the author of many cost books, including Factory Costs (1911), noted the influence of Kittredge on his work in a letter to Webster, dated August 28, 1940. He wrote, “Anson was quite my patron saint and the real inspiration of my book Factory Costs.”
Farquahar MacRae [1941], who was a friend of Kittredge, one of the last surviving members of the IA, and a past president of the organization, mentioned that:

He [Kittredge] was the first accountant that at that time insisted that keeping track of quantities and prices of inventories was as important as keeping the cash account; and when he went into business as a public practitioner, it was to specialize in cost accounting.

Apparently, Kittredge not only understood that cost accumulation and allocation were extremely important in running a profitable business, but he was one of the leaders in cost accounting during the late 19th and early 20th centuries.

EDUCATION

Business education was one of Kittredge's favorite topics. Initially, he was an advocate for an apprenticeship similar to the English system [Kittredge, 1887a]. During the years 1895 and 1896, he was critical of business schools in his editorials, suggesting that they provided nothing more than drills in penmanship, shorthand, and bookkeeping and that they did not adequately prepare students for the real world:

Young men can train for all the business trades at the present time, but nowhere, apparently, is business in the sense of direction and management of operations and profit-making taught. Actual experience, expensive though it is, is the only plan of instruction [Kittredge, 1896].

According to Kittredge, commercial college instructors themselves did not have the practical experience to instruct their students properly. If college professors were "placed in offices to discharge the routine duties of any of the various branches of business they pretend to teach, they would acquit themselves with scarcely more credit than their greenest graduates" [Kittredge, 1895]. In the same article, Kittredge reported that teachers were not usually selected from the accounting profession at large but from students at the time of graduation. Therefore, since they had no practical experience, they only taught their pupils textbook material, not practical, "real world" accounting.

Commercial colleges could overcome these problems by hir-
ing "practical, everyday" accountants to teach classes. Until this happened, Kittredge felt that the accounting profession would never achieve the level of success it deserved [Kittredge, 1895]. Later, he stated that, "the business world owes much to the commercial colleges—far more than it usually acknowledges" [Kittredge, 1898c, p. 175].

In the same article, in order to emphasize the importance of a practical education, he discussed some differences in bookkeeping “as she is wrote and bookkeeping as she is teached (p. 175).” Apparently, there was confusion in some texts related to the use of the trial balance and its substitution for the balance sheet. Kittredge's [1890c, p. 176] position was as follows:

The only use to which a trial balance should be put is to determine the equilibrium of debits and credits in the accounts which are tested by it. The trial balance was never intended to be a business statement. Its use as an indicator of the progress of a business has grown out of the fact that no other statement has been available.

Kittredge [1898c, p. 176] also stated that the profit and loss statement had not been covered adequately or correctly in courses of instruction as indicated by the following statement:

A profit and loss statement necessarily precedes the preparation of a balance sheet. It also is something that has not been explained in treatises and courses of instruction, (so far, at least, as I have been able to ascertain by very careful inquiry.) In the way a practicing accounting would consider appropriate and necessary.

These ideas on a practical education appear to have been incorporated in the establishment of the first successful accounting program in the U.S., the New York University School of Commerce, Accounts and Finance in 1900, an institution in which Kittredge became the first professor of accounting theory and

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9A professional school for accountants, the New York School of Accounts, was chartered in New York State in the fall of 1892 under the auspices of the American Association of Public Accountants. The purpose of the college was to provide "practical instruction in the knowledge, and science of modern accountability and finance." The school lasted only one year, from September 1893 to July 1894.
practice. In addition, he also lectured occasionally at the Columbia School of Business, Cornell, the Stevens Institute of Technology, and the Massachusetts Institute of Technology [Kittredge, 1940].

Ironically, Kittredge did not necessarily practice what he preached, for in letters to Norman Webster in 1940 and 1947, both Leslie J. Tompkins and Orrin R. Judd recollected that Kittredge was criticized about teaching too much theory and too little practice. He apparently was not particularly popular in the classroom or among the students, giving the impression of knowing more about the subject than he was willing to communicate.

PROFESSIONAL

Kittredge was one of 23 charter members of the IA. He was also one of 14 who were members of the Executive Council elected to manage its affairs during its first year. Besides spending various terms as a member of the Executive Council, Kittredge remained active in the Institute for many years, as evidenced by the following array of technical papers he presented at meetings:

1884-1886
- The System of Cost Accounts Now In Use by the Hopson and Chapin Manufacturing Co. of New London, CT.
- Oct. 1890 The Story of an English Syndicate
- Dec. 1891 How Shall We Educate for Business?
- Apr. 1895 Humanizing Influences of Business
- Dec. 1896 Bookkeeping for the Installment Business
- Apr. 1897 The Ledger—Its Forms and Adaptions
- Jul. 1898 Organization
- Nov. 1899 A Scientific Analysis of Business Accounts
- Mar. 1900 Accounting for Cotton Mills.

He was one of the first members elected as a fellow of the IA, along with Edward T. Cockey, Charles Dutton, Joseph Hardcastle, H.S. Ogden, S.S. Packard, Charles Taller, and Charles E. Sprague on

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12 Kittredge, along with the following faculty members, was in charge of the accounting courses: Charles W. Haskins, Dean; Charles E. Sprague, Professor, Theory of Accounts; Ferdinand W. Lafrentz, Professor of Auditing; Henry R. M. Cook, Professor of Practical Accounting; Leon Brummer, Professor of Practical Accounting [Lockwood, 1938, p. 142].

13 These presentations cannot be found in any library in the U.S.; thus, the exact dates are not known for this article.
March 15, 1887. As early as 1886, he had been an advocate for a national organization of accountants [Kittredge, 1886a, pp. 57-58].

Kittredge became Certified Public Accountant No. 121 by waiver in New York in 1899. He became a member of the New York State Society of CPAs in March 1898, as well as a member of its Board of Directors for the years 1900 to 1903. In his obituaries in both Commerce, Accounts and Finance and the Dayton Daily Journal, Kittredge was given credit for contributing to the passage of the first CPA law in 1896. “It was largely owing to Mr. Kittredge’s efforts that the law was passed making the Regents’ Degree of C.P.A. in New York State, now so greatly sought after by accountants” [Commerce, Accounts and Finance, 1903, p. 16]. The Dayton Daily Journal [1903] stated that, “he was also prominent in the movement which resulted in the New York law providing for certified public accountants.”

As a member of the IA and the NYSSCPAs, Kittredge was on the Examining Board for the New York State CPA examination for the year July 1899 to June 1900, and he served on a committee which promoted the organization of the School of Commerce, Accounts and Finance of New York University. Kittredge taught there in 1900 and 1901, and he was listed in its catalogues for the academic years 1901-1902 and 1902-1903. Throughout his career as an editor, he also practiced as an accountant. At the time of his death, he was the president of the public accounting firm, Account, Audit & Assurance Company.

In early 1900, Kittredge was requested by the American...
Bankers' Association to prepare suggestions on the subject of a national bank-clerks' association.17 His report was submitted to the Committee on Education of the American Bankers Association. It is interesting to note that the work of the British Bankers' Institute was described in the report, but this model was not used because of the differences between the U.S. and the U.K. One of Kittredge's objectives for the Institute of Bank Clerks (IBC) was to have lectures at all chapter meetings, as had been the case with the IA which he had helped establish 20 years earlier. It was obvious that Kittredge's experiences in accounting were very helpful in establishing the IBC.

**CONCLUSION**

There were many individuals who helped shape the early accounting profession in the U.S. during its infancy in the late 19th century. Among his contemporaries, few can match Kittredge's contributions as an editor, author, teacher, innovator, practitioner, organizer, and CPA examiner. As one who recognized the importance of cost accounting in manufacturing firms and developed a card-ledger system, he may be one of our first accounting systems persons. It is important to consider the contributions of American accountants writing in periodicals in the U.S. during the late 19th century for a more complete historical understanding of the development of cost accounting.

For at least two years, June 1886 to July 1888, the periodicals Kittredge edited were the only accounting journals in the U.S. Yet, he took an interdisciplinary approach and included other business disciplines, such as marketing (especially advertising) and business law, in his journals to provide not only a technical but a general business education to his readership. His journals served as educational materials for both experienced accountants and aspiring young accountants. With articles written by highly

17 The company was an advocate of what Kittredge called the "Going Profit and Loss Statement and a Perpetual Balance Sheet System." It consisted of using a Boston or skeleton ledger, then used exclusively by banks, with charge and credit tickets used as vouchers for entries. The company published a book explaining this system [Kittredge, 1900b].

17 Kittredge was active in the American Institute of Banking (originally called the American Institute of Bank Clerks), which was established in 1900 by the American Bankers' Association. This was the first effort to raise the standard of character and efficiency among bank clerks. Kittredge was secretary of this organization from its conception and published the official journal of the Institute, The Bulletin [Bulletin of the American Institute of Bank Clerks, 1903].
respected and recognized accountants, as well as question and answer sections, these periodicals served as communication vehicles and information outlets for the profession. They also promoted the science of accounts advocated by the IA.

Kittredge was highly active in organizing the IA, the premier accounting organization of the 1880s and 1890s. As an editor, he promoted many other accounting organizations through his journals. He was instrumental in the development and success of the American Bankers' Association. Kittredge was influential in promoting the theory and practice of accounting as well as the accounting organizations that helped pave the way for the modern profession. In short, he was a 20th century accountant, even though most of his life was lived in the 19th century.

Webster was probably correct when he expressed the belief that, as time passes, newspapers and journals become better known than their editors. The work becomes greater than the individual who created it [Webster, 1940, p. 11]. Leafing through early accounting journals from the last two decades of the 19th century, accounting historians and enthusiasts are able to piece together the history of accountancy in the U.S. Yet, precious little attention is paid to the editors of these journals who, at times, almost single-handedly willed their very existence.

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Vol. 3, No. 8: 3-7, 19-22.

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MacRae F. (1941), letter to Norman Webster dated April 7, Webster Archives, AICPA, Jersey City, NJ.


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Webster, N. E. (1940), "Pioneer Accounting Editors," address presented at Fordham College, April 4, Webster Archives, AICPA, Jersey City, NJ.


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### APPENDIX A

**List of Articles and Books Written by Anson O. Kittredge**

#### The Book-Keeper

<table>
<thead>
<tr>
<th>Date of Publication</th>
<th>Title</th>
<th>Brief Annotation</th>
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<tbody>
<tr>
<td>Oct. 26, 1880</td>
<td>&quot;Foundry Book-keeping&quot;</td>
<td>Description of system where there is no copying or transcribing, and nominal accounts are grouped together</td>
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<tr>
<td>Nov. 9, 1880</td>
<td>&quot;Foundry Book-keeping&quot;</td>
<td>Illustration of journal forms to aid in the process of posting transactions</td>
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#### The Office

<table>
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<tbody>
<tr>
<td>Nov. 1886</td>
<td>&quot;System of Cost Records: FW&quot;</td>
<td>accounting systems for a manufacturing Company; discussion is primarily on time tickets for workers</td>
</tr>
<tr>
<td>Dec. 1886</td>
<td>&quot;System of Cost Records: FW&quot;</td>
<td>accounting systems for a manufacturing Company; discussion is primarily accounting for material and labor cost</td>
</tr>
<tr>
<td>Aug. 1888</td>
<td>&quot;How Shall Office Be Warmed&quot;</td>
<td>ideas to improve working conditions in an office</td>
</tr>
<tr>
<td>Sept. 1888</td>
<td>&quot;How Shall Office Be Warmed&quot;</td>
<td>ideas to improve working conditions in an office</td>
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<tr>
<td>Oct. 1888</td>
<td>&quot;How Shall Office Be Warmed&quot;</td>
<td>ideas to improve working conditions in an office</td>
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<tr>
<td>Nov. 1888</td>
<td>&quot;How Shall Office Be Warmed&quot;</td>
<td>ideas to improve working conditions in an office</td>
</tr>
<tr>
<td>Nov. 1890</td>
<td>&quot;Story of English Syndicate&quot;</td>
<td>ideas, formation, and ramifications of the English Syndicate, an agency which acts as a promoter between parties conducting business</td>
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#### Business

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<tr>
<td>Oct. 1891</td>
<td>&quot;Bookkeeping Without Books&quot;</td>
<td>system of bookkeeping using removable indexes instead of books</td>
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<td>Oct. 1892</td>
<td>&quot;Newspaper Accounting&quot;</td>
<td>introduction to a series of articles dealing with newspaper accounting</td>
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<tr>
<td>Nov. 1892</td>
<td>&quot;Newspaper Accounting&quot;</td>
<td>accounting for advance subscription payments</td>
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<tr>
<td>Jan. 1893</td>
<td>&quot;Newspaper Accounting&quot;</td>
<td>viewing advertising contracts</td>
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<td>Mar. 1893</td>
<td>&quot;Newspaper Accounting&quot;</td>
<td>discussion on importance of executive ability and the advantages of a well-organized office</td>
</tr>
<tr>
<td>Aug. 1893</td>
<td>&quot;Business Management&quot;</td>
<td></td>
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</tbody>
</table>

"Articles listed with an asterisk (*) are included in American Institute of Certified Public Accountants, 1921, p. 968.
Nov. 1893  "Trade Papers From Editor's Point of View"

Jun. 1895  "Columnar Journal"

Jul. 1895  "Columnar Journal"*

Nov. 1895  "Bookkeeping Adaptations"*

Jul. 1896  "Business Office as Training School"

Jul. 1896  "Is Bookkeeping Progressive"*

Jul. 1896  "Toledo and Her Chamber of Commerce"*

Aug. 1896  "Business Environments"

influence of the editor in trade journals and the growing importance of the technical side of the journals

advantages of the columnar principle and separate cash books

illustration of the columnar principle definition, objectives, and differences of different types of bookkeeping systems

inadequacies of real-world training in business schools and how office experience is one of the best trainers

analysis of accounting as a science

discussion of Credit-men's Association and municipal reform efforts

discussion of the importance of maintaining a positive business environment

### Accountics

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<td>May 1897</td>
<td>&quot;The Ledger&quot; origin and definition of the word ledger reasons for much of the change in accounting methods</td>
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<tr>
<td>Jun. 1897</td>
<td>&quot;The Ledger&quot; differences in ledgers in various industries</td>
</tr>
<tr>
<td>Aug. 1897</td>
<td>&quot;The Ledger&quot; auditing system employed at the Pope Manufacturing Company</td>
</tr>
<tr>
<td>Oct. 1897</td>
<td>&quot;Branch House Auditing&quot; auditing system employed at the Pope Manufacturing Company</td>
</tr>
<tr>
<td>Nov. 1897</td>
<td>&quot;Branch House Auditing&quot; discussion of thickened leaves in the balance sheet ledger</td>
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<tr>
<td>Dec. 1897</td>
<td>&quot;Balance Sheet Ledger&quot; description of a horizontal account ledger which allows for carrying balances forward</td>
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<td>Feb. 1898</td>
<td>&quot;Improvements in the Boston Ledger&quot; advantages of using more than one merchandise or trading accounts</td>
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<tr>
<td>Oct. 1898</td>
<td>&quot;Merchandise Account&quot; advantages of introducing a system of uniform bookkeeping Kittredge's beliefs towards business schools</td>
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<tr>
<td>Oct. 1898</td>
<td>&quot;Uniform Bookkeeping&quot; perpetual balance sheets and income statements</td>
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<tr>
<td>Dec. 1898</td>
<td>&quot;Modern Accounting&quot; depreciation accounts, trusts, partnerships, and capital</td>
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<td>Jan. 1899</td>
<td>&quot;Evolution in Accounting and Cost Keeping&quot; principle underlying cost accounting—general factory expenses</td>
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<td>Feb. 1899</td>
<td>&quot;Evolution in Accounting and Cost Keeping&quot; review of Dutch and French accounting literature</td>
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<tr>
<td>Mar. 1899</td>
<td>&quot;Evolution in Accounting and Cost Keeping&quot; Association news</td>
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<tr>
<td>Apr. 1899</td>
<td>&quot;Some of the Accounting Literature of the Netherlands&quot; Association news</td>
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<tr>
<td>Jul. 1899</td>
<td>&quot;National Association of Credit Men&quot; notes on various Credit Men's Associations</td>
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<tr>
<td>Apr. 1899</td>
<td>&quot;National Association of Credit Men&quot; notes on various Credit Men's Associations</td>
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<td>Nov. 1899</td>
<td>&quot;Credit Men's Affairs&quot; difference between an accounting system and a bookkeeping system</td>
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<td>Dec. 1899</td>
<td>&quot;Credit Men's Affairs&quot; examination of the merchandise account and its closing</td>
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<td>Feb. 1900</td>
<td>&quot;Application of Advanced Methods&quot; Association news</td>
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<tr>
<td>Feb. 1900</td>
<td>&quot;What Credit Men are Doing&quot; Association news</td>
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<td>Mar. 1900</td>
<td>&quot;Application of Advanced Methods&quot; division of expense items into factory and commercial expenses</td>
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<tr>
<td>May 1900</td>
<td>&quot;What Credit Men are Doing&quot;</td>
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<tr>
<td>Jun. 1900</td>
<td>&quot;What Credit Men are Doing&quot;</td>
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<td>Apr. 1900</td>
<td>&quot;Application of Advanced Methods&quot;</td>
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[https://egrove.olemiss.edu/aah_journal/vol27/iss2/13](https://egrove.olemiss.edu/aah_journal/vol27/iss2/13)
May 1900  
"Application of Advanced Methods"

Jun. 1900  
"Application of Advanced Methods"

differences between accounting and bookkeeping objectives, and the interpretation of cost accounts
accounting systems used in cotton mills

Commerce, Accounts and Finance

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<th>Date of Publication</th>
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<tr>
<td>Jan. 19, 1901</td>
<td>&quot;University Lectures —Theory of Mercantile Accounts&quot;</td>
<td>definitions of a balance sheet, profit and loss statement</td>
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<td>Jan. 26, 1901</td>
<td>&quot;University Lectures—Theory of Mercantile Accounts&quot;</td>
<td>classifications of accounts into the balance sheet</td>
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<tr>
<td>Apr. 27, 1901</td>
<td>&quot;Cotton Mill Accounting**&quot;</td>
<td>preparation of balance sheet and income statement, as well as proper classifications of accounts for a cotton mill</td>
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<tr>
<td>May 1901</td>
<td>&quot;University Lectures—Theory of Mercantile Accounts&quot;</td>
<td>problems with the coverage of financial statements</td>
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<td>Jun. 1901</td>
<td>&quot;Credits and Collections&quot;</td>
<td>discussion of the Cleveland Convention of the National Association of Credit Men</td>
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<tr>
<td>Jul. 1901</td>
<td>&quot;Business Organization and Administration&quot;</td>
<td>classification of businessmen into those who manage and those who carry out orders</td>
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<tr>
<td>Oct. 1901</td>
<td>&quot;Business Organization and Administration&quot;</td>
<td>philosophical differences between bookkeeping and accounting</td>
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<td>Dec. 1901</td>
<td>&quot;The Balance Sheet**&quot;</td>
<td>discussion on reserve accounts, cash discounts, and standard system for material and supplies</td>
</tr>
<tr>
<td>Dec. 1901</td>
<td>&quot;Street Railway Accounting**&quot;</td>
<td>definition and types of ledgers</td>
</tr>
<tr>
<td>Mar. 1902</td>
<td>&quot;Ledger Rulings**&quot;</td>
<td>discussion on important of a company's administration</td>
</tr>
<tr>
<td>May 1902</td>
<td>&quot;Business Organization and Administration&quot;</td>
<td>explanation for changes made to reorganize the accounting system of a company</td>
</tr>
<tr>
<td>Aug. 1902</td>
<td>&quot;Reason Why**&quot;</td>
<td>use of a suspense account for prepaid insurance and depreciation</td>
</tr>
<tr>
<td>Sept. 1902</td>
<td>&quot;Utility of Reserve Accounts**&quot;</td>
<td>discussion of reserves on balance sheets</td>
</tr>
<tr>
<td>Oct. 1902</td>
<td>&quot;Items in Suspense and Reserves&quot;</td>
<td>origin and types of trust companies, and the importance of its balance sheets</td>
</tr>
<tr>
<td>Jan. 1903</td>
<td>&quot;The Investigation and Audit of Trust Companies&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Articles in Other Periodicals

<table>
<thead>
<tr>
<th>Name of Journal</th>
<th>Date of Publication</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountant</td>
<td>Nov. 21, 1896</td>
<td>&quot;Accounting in the States**&quot;</td>
</tr>
<tr>
<td>Street Railroad Journal</td>
<td>Feb. 1896</td>
<td>&quot;Open Questions Before the Committee on a Standard System of Street Railway Account**&quot;</td>
</tr>
<tr>
<td>Street Railway Journal</td>
<td>Dec. 1898</td>
<td>&quot;Theory of Reserve and Suspense Accounts**&quot;</td>
</tr>
<tr>
<td>Street Railway Journal</td>
<td>Feb. 1898</td>
<td>&quot;Open Questions before the Committee on a Standard System of Street Railway Accounting&quot;</td>
</tr>
<tr>
<td>Metal Worker</td>
<td>1885</td>
<td>&quot;A System of Cost Records for Foundry Work&quot;</td>
</tr>
</tbody>
</table>
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  Title deposited, 1897

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THE ROLE OF DEPRECIATION AND THE INVESTMENT TAX CREDIT IN TAX POLICY AND THEIR INFLUENCE ON FINANCIAL REPORTING DURING THE 20TH CENTURY

Abstract. Since the inception of the modern income tax, the investment tax credit and depreciation have been some of the most modified provisions. This paper traces the history of major changes in depreciation and the investment tax credit along with the tax policy justifications given at the time the changes were made. In addition, the influence of tax depreciation on financial reporting is also discussed. An historical perspective of these two major provisions in tax should be helpful to policymakers and researchers attempting to assess the effectiveness of these policies.

INTRODUCTION

All machinery is on an irresistible march to the junk heap, and its progress, while it may be delayed, cannot be prevented by repairs. This obvious economic fact is of momentous import to accounting, although full recognition has not been given to it in general practice... It implies that, in valuing all fixed assets, account must be taken of the lapse of time, and even in the case of machinery giving no evidence either of use or misuse, the bare fact that it is a year nearer its inevitable goal is an item of which technical account must be taken [Hatfield, 1927, p. 130].
A depreciation deduction has been a part of modern U.S. income tax since its inception. It is at the nexus of several tax policy objectives that at times compete against and at other times complement one another. Since its debut with the corporate excise tax in 1909, the law regarding depreciation has been amended at least once in every decade. The tax policy motivations for these changes are attributed to any of the following: proper income measurement, raising revenue, encouraging capital formation, or ensuring a neutral tax system. Since so many tax policy goals can be ostensibly served by the deduction, it is not surprising that the law has changed so many times during the 20th century.

An historical perspective on the role of depreciation would not be complete without including a discussion of a related provision, the investment tax credit (ITC). The primary purpose of ITC is to spur capital formation. When capital formation is an important tax policy goal, there are often changes to depreciation, ITC, or both. The potential for depreciation and ITC to alter capital formation has drawn the attention of a wide variety of academicians. Despite years of study, the results from empirical research are far from conclusive.¹ Notwithstanding the lack of conclusive evidence about their effectiveness, tax policymakers have used depreciation and ITC as a means to alter investment spending.

The purpose of this paper is to document the changes in depreciation and ITC, the tax policy motivations behind these changes, and the context for the changes that have occurred since the modern U.S. income tax began. By understanding the context for past legislation, both researchers and policymakers can better understand past, current, and potential changes.

The history of the role of depreciation in the income tax can be defined into five time periods: 1909-1953, 1954-1961, 1962-1980, 1981-1985, and 1986 to the present. The legislation of 1954, 1962, 1981, and 1986 represented major shifts with regard to tax policy and its relationship to depreciation or ITC. The discussion below documents the changes and the tax policy motivations for each change that occurred during each time period. In addition, economic and other relevant factors are also addressed.

THE EARLY YEARS: 1909-1953

An allowance for depreciation has been included as a deduction for determining taxable income since the inception of modern corporate and individual income taxes. The corporate excise tax enacted as part of the Tariff Act of 1909 permitted "a reasonable allowance for depreciation of property, if any." The Revenue Act of 1913 permitted "a reasonable allowance for exhaustion, wear and tear of property arising out of its use in a business." The early rationale for the depreciation deduction is contained in the Bureau of Internal Revenue's Regulation 74, Article 202 in which it posited that the necessity for a depreciation deduction arises from the fact that certain business property is subject to exhaustion. Depreciation's role was primarily that of income determination. With its inclusion of depreciation in the income tax base, the government was actually taking a bold step that differed from much of financial reporting practice of the day.

In commenting about financial reporting practice in the early part of the 20th century, Hatfield [1927, p. 140] offered the following summary:

Present practice unfortunately does not always correspond to current principle. Corporations are still apt to look upon the charge for depreciation as being an act of grace rather than of necessity, and the allowance is frequently less in the lean than in the prosperous years. But the improvement since . . . 1908 has been very marked. At that time any recognition of depreciation was relatively uncommon in the accounts of American corporations, and the relatively few companies that showed depreciation in prosperous years grew

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2 The U.S. first enacted an income tax in 1861 to fund the Civil War. This tax did not mention depreciation. Depreciation was specifically excluded as a deduction for the 1894 income tax which was ruled unconstitutional. Thus, a depreciation deduction was not provided for in the calculation of taxable income prior to 1909. The corporation excise tax enacted in 1909 was a tax on corporate income. The inception of the modern-day individual income tax began with the ratification of the 16th Amendment to the U.S. Constitution on February 25, 1913, and the passage of the Revenue Act of 1913 on March 1, 1913.

3 Grant and Norton [1949, p. 249] noted that, "it is significant that the first recognition of annual expense of depreciation for tax purposes occurred in the same year in which depreciation was first recognized by the Supreme Court [Knoxville v. Knoxville Water Company, 212 U.S. 1 (1909)] as an element in the regulation of public utility rates."
faint-hearted when business was poor. But an examination of the balance sheets during the trying period after the Great War shows that many of them made charges for depreciation even though that resulted in a net deficit. This closer adherence to correct accounting principles was doubtless stimulated by the provisions of the income-tax law.

Saliers [1923] offered a similar summary, noting that firms refused to allow for depreciation expense early in the 20th century. In his view, corporations in 1922 were still varying their depreciation deductions with their earnings. By 1932, Paton [1932, p. 578] noted:

Depreciation accounting has by no means attained an ideal state, but there is now almost universal agreement as to the general significance of depreciation and the importance of recognizing the phenomenon in some appropriate manner. The cost of plant assets which have a limited useful life must evidently be taken into consideration, in some other way if not in the form of systematic accruals, if costs of production are to be accurately calculated, periodic income determined on a sound basis, and the integrity of investment maintained. The income tax regulations have no doubt been more potent in bringing about this condition than the admonitions of accountants or the arguments of academicians.

Thus, it appears that early efforts to define taxable income by including depreciation had an impact on financial reporting practice in the early part of the 20th century. Apparently, however, financial managers exercised a considerable degree of discretion with regard to the amount of depreciation, if any, that was expensed on their income statements for financial reporting. For the first third of the 20th century, they also had a great degree of latitude with regard to how much depreciation they deducted for income tax purposes.

In 1920, the Treasury first issued Bulletin F, leaving the determination of the amount of depreciation to the taxpayer based on his judgment and experience, with final approval by the
Commissioner. Thus, taxpayers had a considerable degree of freedom in determining their depreciation deductions. During the 1924-1931 time period, depreciation allowances increased substantially.

By 1931, claimed depreciation deductions exceeded corporate taxable income [U.S. Congress, House, Committee on Ways and Means, 1934]. In 1931, the Treasury issued a revised Bulletin F. It attached a preliminary study that gave "probable useful lives" for over 2,700 different kinds of industrial assets. Determining a depreciation deduction remained at the taxpayer's discretion, however. The deduction would not be disallowed unless the government could demonstrate "by clear and convincing evidence" that the deduction was "unreasonable." By 1934, the House Ways and Means Committee considered substantial across-the-board 25 percent reductions in depreciation allowances for the 1934 to 1936 time period. It estimated that the government would receive an additional $85 million in tax revenue per year from the recommended changes.

The Treasury Department, however, opposed an arbitrary reduction. It believed that the matter could best be resolved by administrative rather than legislative action. Treasury Secretary Morgenthau proposed that the Treasury require taxpayers to furnish supporting schedules, require depreciation to be limited to an asset's useful life, and switch the burden of proof for a reasonable deduction to the taxpayer. Rather than mandating depreciation deductions through legislation, the choice was made to handle it administratively through guidelines drafted by the Treasury.

In 1934, the Treasury Department issued Treasury Decision 4422, 1934 CB 58 (TD 4422). TD 4422 outlined the Treasury's change in policy as Secretary Morgenthau had proposed. TD 4422 required taxpayers to furnish a schedule showing their calculation of depreciation expense to substantiate their deductions. Taxpayers were allowed to allocate the cost of an asset over its useful life using the straight-line or units-of-production method. Until 1934, the burden of proof fell on the Internal Revenue examiner to demonstrate that a taxpayer had misstated income by improperly calculating his depreciation expense by clear and convincing evidence. This policy was changed in 1934, shifting the burden of proof from the government to the taxpayer.

In 1942, the Treasury Department issued a second revision of Bulletin F. Bulletin F recommended useful lives for over 5,000 assets. The Treasury's estimates of useful lives, however, were
based on surveys conducted during the Great Depression of the 1930s when businesses tended to replace their obsolete assets less frequently. Thus, the useful life estimates listed in Bulletin F’s revision were generally longer than an asset’s actual useful life and longer than in the 1931 version of Bulletin F. This disparity resulted in tax depreciation deductions being less than what was considered economic depreciation. This policy continued until 1954.

During this time a taxpayer could also use the “facts and circumstances” method, whereby assets were assigned useful lives based on the taxpayer or industry’s general experience. However, if the taxpayer chose to define an asset’s depreciable life using Bulletin F rather than the “facts and circumstances” method, he avoided controversy in an audit. Thus, many assets were depreciated using either the straight-line or units-of-production method over the assets’ useful lives as defined in Bulletin F. It was not until 1954 that the tax laws were revised to bring tax depreciation more in line with what was considered economic depreciation.

A SHIFT IN TAX POLICY PERSPECTIVE: 1954-1961

Until 1954, Congress viewed depreciation solely as a deduction necessary for proper income determination. The deduction was an allowance which reflected the “exhaustion, wear and tear of property used in a trade or business” [IRC §167(a)]. The enactment of the Internal Revenue Code of 1954, however, marked a major shift in depreciation’s role in tax policy. For the first time Congress considered using tax depreciation as an economic incentive for stimulating investment. It also marked the first time Congress, rather than the Treasury, decided the allowable means for calculating the deduction.

The tax law change in 1954 allowed businesses to use any method of depreciation as long as it was both consistently applied and did not exceed twice the straight-line rate of depreciation. Congress believed that the pre-1954 depreciation system acted as a barrier to investment. It also believed that the pre-1954 “tax depreciation methods might depress business capital expenditures below the level needed to keep the economy operating at high levels of output and employment” [U.S. Congress, House, Committee on Ways and Means, 1954, p. 22]. Thus, the 1954 tax changes were designed to provide incentives for investment.

At the same time, however, Congress was also concerned about the effect these changes would have on income determination. The new methods of depreciation would:
...concentrate deductions in the early years of service and [would result] in a timing of allowances more in accord with the actual pattern of loss of economic usefulness. With the rate limited to twice the corresponding straight-line rate and based on a realistic estimate of useful life, the proposed system [would conform] to sound accounting principles [U.S. Congress, House, Committee on Ways and Means, 1954, p. 23].

Thus, Congress wanted to stimulate investment while remaining within economic and accounting principles. With the 1954 law, Congress sanctioned the use of the double-declining balance method. This was the first time Congress opted to decide what depreciation methods should be allowed. Up until this time, depreciation was handled administratively through the Treasury Department.

In 1958, the Small Business Tax Revision Act of 1958 introduced first-year depreciation for the first time. This allowed small businesses to deduct up to 20% of the cost of tangible personal property. The purpose of this provision was to assist small business by increasing the amount of funds available to them via a reduction in tax liability [Congressional Record, 1958, pp. 17,085, 17,090]. A variation of this election, known as the immediate expense election, remains today.

THE 1960s AND THE INVESTMENT TAX CREDIT

Investment Tax Credit Enacted (1962): The Revenue Act of 1962 (RA62) represents a landmark in terms of tax incentives for investment. ITC was first introduced in RA62. President Kennedy advocated enacting the credit to stimulate capital formation. He believed higher levels of capital formation would raise productivity, keep people employed, and alleviate a serious balance of pay-
ments problem [U.S. Congress, House, 1961, p. 3]. Congress echoed his sentiments by stating that the objective of the credit was "to encourage modernization and expansion of the Nation's productive facilities and thereby improve the economic potential of the country, with resultant increase in job opportunities and betterment of our competitive position in the world economy" [U.S. Congress, Senate, Committee on Finance, 1962, p. 11].

Stimulating investment was to be accomplished through two major tax revisions. These were the Treasury's revision of depreciation guidelines and ITC. Congress believed that realistic depreciation rules did not provide sufficient incentive to spur economic growth. An additional incentive in the form of an ITC would stimulate investment in two ways. First, it would reduce the net cost of acquiring depreciable assets. Second, it would increase the cash flow available for investment [U.S. Congress, Senate, Committee on Finance, 1962, p. 11].

Congress also considered the possibility of using more accelerated methods of depreciation in lieu of a credit. This idea was discarded, however. Congress believed the credit was "preferable to higher depreciation charges because the latter tends to distort income accounting" [U.S. Congress, Senate, Committee on Finance, 1962, p. 12]. It seems clear that Congress did not wish to deviate materially from accounting and economic concepts of income in order to stimulate investment.

**ITC Suspension (1966-1967):** In 1966, the U.S. faced problems with inflation. Therefore, President Johnson initiated a comprehensive plan which called for reducing government expenditures for low-priority programs and temporarily suspending tax incentives for investment [U.S. Congress, House, 1966, pp. 4-7]. Congress noted that the bill was:

...part of an overall program designed to moderate the pace of the economy to a level more compatible with the rate of increase in our physical capacity to produce, to begin the return to price stability and to relieve distortions among various sectors of the economy which arise from widely different

The reasoning behind this argument is that a firm would have a pool of available funds for investment. The 7% credit for new investment would augment this pool so that more investment could be made.
rates of growth. By removing certain tax incentives for investment in machinery, equipment and buildings, the bill will ease inflationary pressures in those sectors where demands for output are straining present productive capacity. The action also will have the effect of reducing pressures tending to raise interest rates and will promote an increased flow of credit into the home mortgage market. Moreover, the bill can be expected to produce a short-run improvement in the Nation's balance-of-payments position as demand for output is brought into balance with the existing capacity to produce the output [U.S. Congress, Senate, Committee on Finance, 1966, p. 4].

Thus, ITC and accelerated depreciation on real property were temporarily suspended from October 10, 1966 to December 31, 1967.

The suspension ended up being short-lived. On June 13, 1967, President Johnson signed H.R. 6950 [P.L. 90-26], lifting the suspension effective March 10, 1967. At the time ITC was reinstated, interest rates were dropping and housing starts were up. It appeared as if the economy was rebounding and the suspension no longer necessary.

**ITC Abolished (1969-1971):** In 1969, problems with inflation reappeared. Once again, Congress believed that ITC directly contributed to inflationary pressures and wide fluctuations in investment. Eliminating the credit would help reduce inflation and help keep the rate of change in investment on a more steady path [U.S. Congress, House, Committee on Ways and Means, 1969, p. 178].

Although Congress considered suspending the credit as it had done a few years earlier, the idea was rejected on two grounds. First and foremost, Congress believed that during the prior suspension period (1966-1967), businesses had simply postponed their acquisitions until after the suspension was lifted. In the view of Congress, it was “undesirable to repeat that experience” [U.S. Congress, House, Committee on Ways and Means, 1969, p. 179]. Second, suspension and subsequent restoration of the credit were administratively difficult.

Therefore, Congress voted to repeal ITC. At the time the credit was repealed, Congress had no plans for bringing it back any time in the future. In fact, it believed that:
...It [might] well be that the normal incentives of potentially greater profits in the context of a stable growth, full employment economy will provide the investment needed without resorting to special devices to stimulate investment which, on occasion, appear to give rise to investment booms [U.S. Congress, House, Committee on Ways and Means, 1969, p. 180].

DEPRECIATION FROM THE EARLY 1960s TO THE REVENUE ACT OF 1971

*Revenue Procedure 62-21:* Although the depreciation rules did not change as frequently during the 1960s as those associated with ITC, depreciation did not escape controversy. In 1962, the next major change with regard to depreciation occurred. That year the Internal Revenue Service (IRS) issued Revenue Procedure 62-21, 1962-2 CB 418 (Revenue Procedure 62-21). Bulletin F had defined useful lives on an asset-by-asset basis. Revenue Procedure 62-21 took a different approach by grouping assets by industry of use. The guideline lives were based on statistical data and assessment of technological trends for each industry in the U.S. [Revenue Procedure 62-21, p. 463]. The new guideline lives placed a greater emphasis on the economic life of an asset rather than its physical life [Revenue Procedure 62-21, p. 464]. As a result, write-off periods for assets could be reduced 30 to 40%. A taxpayer could only use the new guideline lives, however, if they were consistent with the actual retirements and replacement practices of his business. This could be demonstrated by a reserve ratio test.8

The reserve ratio test was used to form ranges of depreciable lives based on a taxpayer’s actual usage. Taxpayers could only continue to use the generous guideline lives under Revenue Procedure 62-21 if they conformed to actual service lives as determined by the reserve ratio test. This test effectively obligated taxpayers to retire property within the guideline life periods in order to continue to use guideline lives.

Although the IRS initially expected that the guideline lives

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8The reserve ratio was calculated by dividing accumulated depreciation by the gross (undepreciated) basis of an asset within a class. This ratio was then used to form a range for depreciable lives no greater than 20% or no less than 10% of a benchmark life based on actual usage of the firm’s assets.
under Revenue Procedure 62-21 [p. 464] would alleviate controversy, implementation of the reserve ratio test proved controversial. Announcement 71-76, 1971-2 CB 503 (Announcement 71-76) criticized the reserve ratio test on the basis that one could not determine if guideline lives had been violated until an asset was disposed [Announcement 71-76, pp. 503, 511]. In addition, a survey indicated that 87% of IRS agents found the test unworkable and impractical [Announcement 71-76, p. 512]. The reserve ratio test was abandoned with the enactment of the Revenue Act of 1971.

Along with the controversy surrounding the IRS's implementation of Revenue Procedure 62-21 during the 1960s, Congress also made a few innovations to tax law associated with depreciation. With the Revenue Act of 1962, Section 1245 depreciation recapture was introduced for the first time. This provision converts the character of a gain from the sale of personalty that is attributable to prior depreciation into ordinary income. Congress wished to prevent using depreciation to convert ordinary income into capital gains [U.S. Congress, Senate, Committee on Finance, 1962]. The Revenue Act of 1964 extended depreciation recapture to buildings with Section 1250 recapture, subsequently made more stringent with the Tax Reform Act of 1969.

The Revenue Act of 1971: In the early 1970s, the U.S. faced high unemployment, inflation, and little growth in GNP and investment. The business tax incentives that were enacted in 1971 were designed to be “large enough to stimulate the economy and yet not so large that they [would] create a new wave of inflationary pressure” [U.S. Congress, Senate, Committee on Finance, 1971, p. 7]. The major business tax incentives were a revision of the depreciation rules and a reinstatement of ITC.

The Revenue Act of 1971 introduced the Class Life Asset Depreciation Range System (ADR). ADR provided new guidelines for defining an asset's useful life. These guidelines effectively replaced the Revenue Procedure 62-21 guidelines that had been used until that time. Like Revenue Procedure 62-21, an asset's useful life was defined by its industry of use rather than by type of asset. The number of asset classes, however, was increased from 75 to 132.

The Treasury Department was given authority to prescribe depreciable lives based on anticipated industry norms [U.S. Congress, House, Committee on Ways and Means, 1971].
ADR provided an additional feature not present in Revenue Procedure 62-21. Taxpayers were able to select an asset's useful life from a range of lives. The range was 20% less than to 20% greater than those provided by Revenue Procedure 62-21. The Revenue Act of 1971 still allowed taxpayers to define useful lives using the "facts and circumstances" method. Congress expected, however, that the ranges of lives provided by ADR would make administering the depreciation rules simpler. They believed that ADR would reduce the number of disputes which were likely to arise because of the particular facts and circumstances of the taxpayer’s situation [U.S. Congress, Senate, Committee on Finance, 1971, p. 48].

ITC also reappeared under the guise of a jobs development investment credit.¹⁰ The credit was reinstated for several reasons. First, the credit was expected to improve the economy by creating additional jobs through increased expenditures in machinery and equipment. Second, Congress expected the credit to reduce inflation this time because “an increased flow of goods into the market is the best long run assurance we can have of keeping prices down.” Third, new investment in productive facilities would help make them more efficient. Therefore, the U.S. would be more competitive in foreign markets and the balance of payments would be improved [U.S. Congress, House, Committee on Ways and Means, 1971, pp. 5-6].

TAX REDUCTION ACT OF 1975

In 1975, the U.S. faced its highest levels of unemployment since 1941. The Tax Reduction Act of 1975 was designed to restore economic growth and to move toward full employment. A key component of the Act was a temporary increase in ITC.

The Tax Reduction Act of 1975 increased ITC from 7% to 10% for qualified property acquired before January 1, 1977. Congress expected the tax revisions “would help revive the economy and increase employment without adding significantly to inflationary pressures.” Once again, Congress believed that the increase in the tax credit would create more jobs, increase productivity, reduce inflation, and improve the U.S. balance of payments [U.S. Congress, House, Committee on Ways and Means, 1975, pp. 7-11].

¹⁰The form of the “jobs development investment credit” was similar to ITC that was abolished in 1969. It allowed a credit of 7% of the cost of personalty in the year of acquisition.


ACRS: The Economic Recovery Tax Act of 1981 (ERTA) represents a major turning point in the evolution of depreciation and tax policy with the first appearance of the Accelerated Cost Recovery System (ACRS). Until ERTA, Congress was concerned that tax depreciation rules conformed to sound accounting and economic principles. Under ERTA, this function of the depreciation deduction no longer seemed important. In fact, ACRS was so different from what accountants and economists typically referred to as depreciation that the deductions were called “cost recovery” instead of depreciation. With ERTA, simplifying tax rules and encouraging investment seemed far more important than conforming to accounting practice for financial reporting.

Under ACRS, personalty was categorized into one of four “recovery classes.” Assets were grouped according to the number of years over which their original cost was recovered. Of the four personalty recovery classes, only the three-year and five-year classes were frequently used. The ten-year and fifteen-year classes were reserved for a relatively few specialized assets. Under ERTA, all depreciable realty had a 15-year recovery period.

There were several reasons for enacting ACRS. First, Congress concluded that prior depreciation and ITC provisions required revisions because they did not provide the investment stimulus that was considered essential for economic expansion. Second, Congress believed that the prior law was unnecessarily complicated. Third, the real value of depreciation deductions had declined because of inflation. It was hoped that ACRS would compensate for this problem by giving assets shorter lives [Staff of the Joint Committee on Taxation, 1981, p. 73]. A fourth reason mentioned in several hearings was to help the U.S.’s balance of payments problem by increasing the nation’s competitiveness in international trade via increased productivity from investment in more modern equipment. In addition to major revisions in depreciation, ERTA modified ITC making it more compatible with ACRS.
**Post-ERTA Modifications: 1982 to 1985:** During the four years following ERTA, a series of three different pieces of legislation gradually rolled back some of ERTA's generosity. First, the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) required either a reduction in depreciable basis or a reduced ITC.\(^{11}\) In addition, when ERTA was originally enacted, more accelerated cost recovery schedules were planned to begin in 1985 and 1986.\(^{12}\) TEFRA repealed the planned accelerations in depreciation deductions. Second, the Deficit Reduction Act of 1984 lengthened the recovery period for realty from 15 to 18 years. In addition, special limitations for passenger cars were enacted.\(^{13}\) Finally, the Imputed Interest Act of 1985 further lengthened the realty recovery period from 18 to 19 years.

All three pieces of legislation were enacted during a time when cutting federal budget deficits was a primary concern [U.S. Congress, House, 1982; U.S. Congress, Senate, Committee on Finance, 1985]. The modifications in TEFRA were based on a concern that the combined effect of ITC and the accelerated depreciation in ACRS had been too generous [U.S. Congress, Senate, Committee on Finance, 1982, p. 126]. In 1984, Congress was concerned that real-estate depreciation had led to excessive tax sheltering.

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\(^{11}\) TEFRA required a taxpayer to reduce the depreciable basis of property by one-half of ITC taken. Taxpayers could elect to depreciate the full depreciable basis of property if they reduced ITC taken. Under this election, property eligible for the 10% ITC only received an 8% credit. Property eligible for a 6% ITC received a 4% credit.

\(^{12}\) The ACRS schedules, as enacted in 1981, were developed to approximate 150% declining balance in the early years of an asset's life with a switch to straight-line for later recovery years. Under ERTA, the schedules were to change in 1985 to approximate 175% declining balance in the early years of an asset's life with a switch to sum-of-the-years' digits for later years. In 1986, the schedules were to change once more reflecting the use of 200% declining balance with a switch to sum-of-the-years' digits.

\(^{13}\) The Deficit Reduction Act of 1984 limited ACRS deductions to $4,000 for the first year and $6,000 each year thereafter for passenger automobiles. In addition, ITC was limited to $1,000 ($667 if the taxpayer elected to reduce ITC to be able to depreciate the full cost of the asset rather than reducing the depreciable basis by one-half of ITC). Congress believed that ITC and ACRS should be used to stimulate capital formation rather than to subsidize what it perceived to be "the element of personal consumption associated with the use of very expensive automobiles" [U.S. Congress, House, Committee on Ways and Means, 1984, p. 1387]. In addition, there was a perception that taxpayers tended to overstate the proportion of business use of automobiles. It was Congress' belief that the ACRS and ITC limits would assist with compliance in this regard [U.S. Congress, House, Committee on Ways and Means, 1984, p. 1387].
ters to the detriment of more productive investments [U.S. Congress, Senate, Committee on Finance, 1984]. When ERTA was enacted in 1981, the role of depreciation in income measurement was not a concern. By 1985, this concern had resurfaced when the Senate Finance Committee felt that “the useful life of most real property exceeds 18 years and that an increase in the cost recovery period for real property would more correctly measure the income from real property” [U.S. Congress, Senate, Committee on Finance, 1985, p. 15].

1986 TO PRESENT

Tax Reform Act of 1986: The Tax Reform Act of 1986 (TRA86) is the final major shift in depreciation and tax policy. TRA86 repealed ITC and made additional modifications to ACRS, resulting in MACRS. Cultivating investment as a policy goal was not abandoned, but the means of doing so were considerably changed.

TRA86 was enacted to increase the fairness, efficiency, and simplicity of the tax system [Staff of the Joint Committee on Taxation, 1986, p. 6]. Congress wished to reduce the role taxes play in investment and consumption decisions. Rather than targeting specific forms of investment, Congress believed that the “surest way of encouraging the efficient allocation of all resources and the greatest possible economic growth was by reducing statutory tax rates” [Staff of the Joint Committee on Taxation, 1986, p. 98].

TRA86 repealed ITC. As opposed to the 1969 repeal, the current repeal has been far more long-lived as ITC has not reappeared. See Table 1 for a summary of ITC changes. Congress believed that ITC “discriminated against long-lived investment and was used as a tax shelter device” [Staff of the Joint Committee on Taxation, 1986, p. 10]. Instead of targeting investment for a defined set of assets, capital formation incentives under TRA86 were provided by lower tax rates and accelerated depreciation.
TABLE 1
Changes in the Investment Tax Credit and Rationale for Change

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Change</th>
<th>Congressional Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Act of 1962</td>
<td>Investment tax credit enacted</td>
<td>Stimulate capital formation</td>
</tr>
<tr>
<td>H.R. 17607 [Public Law 89-800]</td>
<td>Investment tax credit suspended effective 10/10/66 to 12/31/67</td>
<td>Ease inflation and relieve distortions across sectors in the economy</td>
</tr>
<tr>
<td>H.R. 6950 [Public Law 90-26]</td>
<td>Investment tax credit suspension lifted effective 3/10/67</td>
<td>Economic pressure appeared to have lifted</td>
</tr>
<tr>
<td>Tax Reform Act of 1969</td>
<td>Investment tax credit repealed</td>
<td>Ease inflationary pressures</td>
</tr>
<tr>
<td>Revenue Act of 1971</td>
<td>Investment tax credit reinstated</td>
<td>Creating jobs</td>
</tr>
<tr>
<td>Tax Reduction Act of 1975</td>
<td>Temporary increase in the investment tax credit from 7% to 10%</td>
<td>Revive economy and increase employment</td>
</tr>
<tr>
<td>Tax Reform Act of 1976</td>
<td>Temporary increase extended to 12/31/80</td>
<td>Stimulating investment</td>
</tr>
<tr>
<td>Revenue Act of 1978</td>
<td>Temporary increase made permanent effective 1/1/81</td>
<td>Stimulating investment</td>
</tr>
<tr>
<td>Tax Equity and Fiscal Responsibility Act of 1982</td>
<td>Reduction in depreciable basis or reduced credit</td>
<td>Combined effect of ACRS and investment tax credit was perceived to be too generous</td>
</tr>
<tr>
<td>Tax Reform Act of 1986</td>
<td>Investment tax credit repealed</td>
<td>Enhance neutrality of tax system by repealing a provision that discriminated against investment in longer-lived assets</td>
</tr>
</tbody>
</table>

In addition to repealing ITC, Congress modified ACRS. MACRS was designed to “provide for more neutral depreciation treatment across diverse assets” [Staff of the Joint Committee on Taxation, 1986, p. 10]. Congress once again returned to the notion that recovery periods should more closely reflect the actual useful lives of assets.

Revenue Reconciliation Act of 1993: The Revenue Reconciliation Act of 1993 was enacted during a time when reducing budget deficits was a primary goal. In it, Congress lengthened the non-residential realty recovery period from 31.5 to 39 years. With this legislation, Congress turned full circle toward having depreciation reflect “proper” income measurement with regard to depreciable real property. It felt that depreciation deductions had been larger than the actual decline in the value of property. In order to measure more accurately the economic income derived from using nonresidential realty, the recovery period was increased to...
39 years [U.S. Congress, House, Budget Committee, 1993, pp. 625-626]. With this change the recovery period for buildings returned to an amount close to what it was prior to ERTA. With the use of component depreciation and the facts and circumstances methods of depreciation, depreciable lives for buildings was effectively 36 to 37 years [Staff of the Joint Committee on Taxation, 1981, p. 20]. The changes in the Revenue Reconciliation Act of 1993 are the most recent changes in depreciation. See Table 2 for a summary of depreciation changes over time.

**TABLE 2**

<table>
<thead>
<tr>
<th>Legislation or Administrative Action</th>
<th>Change</th>
<th>Congressional Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Excise Tax Act of 1909</td>
<td>Depreciation first appeared</td>
<td></td>
</tr>
<tr>
<td>Revenue Act of 1913</td>
<td>Depreciation appeared as part of the first income tax under the 16th Amendment</td>
<td></td>
</tr>
<tr>
<td>Bulletin F first issued (1920)</td>
<td>Determination of depreciation expense remained taxpayer determined</td>
<td>(Administrative action)</td>
</tr>
<tr>
<td>Bulletin F first revised (1931)</td>
<td>Determination of depreciation expense remained taxpayer determined but an attachment provided examples of useful lives for over 2,700 different assets</td>
<td>(Administrative action)</td>
</tr>
<tr>
<td>TD 4422 (1934)</td>
<td>Required taxpayers to furnish a schedule supporting their depreciation deduction; limited depreciation to an asset's useful life; shifted the burden of proof to the taxpayer to demonstrate that depreciation was properly determined</td>
<td>(Administrative action)</td>
</tr>
<tr>
<td>Bulletin F 2nd revision (1942)</td>
<td>Treasury Department recommended useful lives for over 5,000 assets based on studies conducted during the Depression</td>
<td>(Administrative action)</td>
</tr>
<tr>
<td>Internal Revenue Code of 1954</td>
<td>Congress allowed businesses to use any depreciation method as long as it did not exceed twice the straight-line rate</td>
<td>Stimulate investment while remaining within accepted economic and accounting principles</td>
</tr>
<tr>
<td>Small Business Tax Revision Act of 1958</td>
<td>Immediate expense election first introduced</td>
<td>Assistance to small businesses</td>
</tr>
<tr>
<td>Revenue Procedure 62-21</td>
<td>Provided guideline lives based on an industry-by-industry basis rather than an asset-by-asset basis</td>
<td>(Administrative action)</td>
</tr>
<tr>
<td>Revenue Act of 1962</td>
<td>Section 1245 recapture introduced for the first time</td>
<td>Raising revenue (recapture provisions designed conversion of ordinary income to capital gains)</td>
</tr>
</tbody>
</table>

11Component depreciation allowed a taxpayer to depreciate the parts of a building over differing useful lives rather than depreciating the entire over a uniform life.

https://egrove.olemiss.edu/aah_journal/vol27/iss2/13
## TABLE 2 (cont.)

<table>
<thead>
<tr>
<th>Legislation or Administrative Change</th>
<th>Congressional Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Act of 1964 Recapture (Section 1250) extended to buildings</td>
<td>Raising revenue (recapture provisions designed conversion of ordinary income to capital gains)</td>
</tr>
<tr>
<td>Tax Reform Act of 1969 Section 1250 recapture tightened</td>
<td>Revenue raising</td>
</tr>
<tr>
<td>Revenue Act of 1971 Class Life Asset Depreciation Range System introduced (ADR)</td>
<td>Encourage investment</td>
</tr>
<tr>
<td>Tax Equity and Fiscal Responsibility Act of 1982 Depreciable basis reduced if full investment tax credit taken</td>
<td>Perception that 1981 provisions were too generous</td>
</tr>
<tr>
<td>Deficit Reduction Act of 1984 Real property lives extended from 15 to 18 years</td>
<td>Deficit reduction</td>
</tr>
<tr>
<td>Imputed Interest Act of 1985 Real property lives extended from 18 to 19 years</td>
<td>Deficit reduction and bringing useful lives for realty closer to actual useful lives</td>
</tr>
<tr>
<td>Tax Reform Act of 1986 Modified ACRS introduced extending recovery periods for personality and reality (residential reality lives extended to 27.5 years and nonresidential extended to 31.5 years)</td>
<td>Enhance neutrality in tax system</td>
</tr>
<tr>
<td>Revenue Reconciliation Act of 1993 Extended recovery period for nonresidential reality to 39 years</td>
<td>Better measurement of economic income</td>
</tr>
</tbody>
</table>

## CONCLUDING REMARKS

In the 90 years since the inception of the modern income tax, tax policy and depreciation have come nearly full circle. Until 1954, depreciation's role was primarily one of proper income determination. In 1954, Congress first entertained the notion that depreciation could be used to further other tax policy goals, specifically encouraging capital formation. From 1954 to 1981, income measurement and economic motivations were the primary tax policy considerations. The investment credit, initially enacted in 1962, was turned off and on during this period, justified entirely on economic grounds. ERTA's enactment in 1981 marked a major turning point in depreciation policy. For the first time, the role of depreciation in income determination was ignored. Encouraging investment and simplifying the tax rules were the primary motivations behind the law. Soon after ERTA's enactment, revenue-raising concerns became important and Congress began to lengthen depreciable lives over a series of legislative acts. The Tax Reform Act of 1986 abandoned the notion of targeting investment in certain types of assets. The neutrality of the tax system became important. ITC was repealed, and ACRS
was modified based on neutrality considerations. By the Revenue Reconciliation Act of 1993, Congress had come full circle with the desire to have better income measurement. Encouraging certain forms of investment was no longer paramount.

Despite Congressional use of depreciation and ITC to further economic goals, the empirical evidence about the effectiveness of these tax policy tools is quite mixed. There is no consensus about the effectiveness of these measures. Since depreciation is based on when an asset is placed in service, taxpayers are left with a hodgepodge of regulations as a complex legacy of Congressional policymaking. For the time being, the current rules for new acquisitions are relatively simple and have returned to useful lives that are closer to what they were before ERTA's enactment. History indicates, however, that as economic pressures change, depreciation and ITC are particularly vulnerable to modifications. Each change adds another layer of complexity for taxpayers. The impact of taxes on investment has been, and is, clearly an important issue that warrants further study to assist policymakers in shaping the law.

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U.S. Congress, House, Budget Committee (1993), H. Rept. 111, 103rd Congress, 1st session.

U.S. Congress, House, Committee on Ways and Means (1934), H. Rept. 704, 73rd Congress, 2nd session.


U.S. Congress, Senate, Committee on Finance (1966), *Suspension of Investment Credit and Accelerated Depreciation. A Bill to Suspend the Investment Credit and the Allowance of Accelerated Depreciation in the Case of Certain Real Property*, S. Rept. 1724, 89th Congress, 2nd session.


BIBLICAL BASIS OF FORTY-YEAR
GOODWILL AMORTIZATION

Abstract: Current U.S. GAAP mandates amortizing goodwill over no more than 40 years. Although many commentators suggest that 40 years is an arbitrary time span, there is a Biblical basis for 40-year amortization. The Bible refers to 40 years as the life of a generation. Since amortizing goodwill over no more than 40 years corresponds to amortizing it over no more than one generation of talented employees or customers, the process is not completely arbitrary.

Goodwill is an asset because it represents future economic benefits, often attributable to a talented work force or a favorable customer following. Under current GAAP, Accounting Principles Board Opinion No. 17, “Intangible Assets” (APB 17), goodwill acquired after October 31, 1970 must be amortized over a period not to exceed 40 years.¹

Acknowledgments: The author acknowledges librarian Rita Ormsby (Baruch College – CUNY) for tracing down several citations. He also acknowledges the helpful comments and suggestions of Stephen H. Bryan (Wake Forest University), Harry Z. Davis (Baruch College – CUNY), Jack W. Lynn (Michigan Association of CPAs), Jan Sweeney (Stern School –NYU), Eric B. Wisnia (Temple Beth Chaim), four anonymous reviewers, and editor Richard K. Fleischman. Any errors, of course, are the responsibility of the author alone.

Submitted December 1999
Revised March 2000
April 2000
Accepted May 2000

¹In 1999, the Financial Accounting Standards Board (FASB, 1999, para. 42) proposed to reduce the maximum goodwill amortization period to 20 years.
Both the APB and subsequent commentators have suggested that the 40-year goodwill maximum amortization period is a completely arbitrary time span. There is a Biblical basis, however, for this amortization period. The Bible suggests that the life of a generation does not exceed 40 years. To the extent that goodwill is attributable to a talented work force or a favorable customer following, amortizing goodwill over no more than 40 years corresponds to amortizing it over no more than one generation of talented employees or customers. Accordingly, this 40-year period is not a completely arbitrary time span.

NATURE, RECOGNITION, MEASUREMENT, AND AMORTIZATION OF GOODWILL

In accounting for goodwill, it is useful to distinguish among its nature, recognition, measurement, and subsequent amortization.

Nature of Goodwill: FASB Concepts Statement No. 6 [1985, para. 25] defined an asset as probable future economic benefits obtained or controlled by a particular entity as a result of a past transaction or event. Three essential characteristics of an asset were noted [FASB, 1985, para. 26]:

(a) It embodies a probable future benefit that involves a capacity, singly or in combination with other assets, to contribute directly or indirectly to future net cash inflows.
(b) A particular entity can obtain the benefit and control others’ access to it.

Unfortunately, many commentators have defined goodwill without distinguishing among its nature, recognition, and measurement. For example, Cooper and Ijiri [1983, p. 238] defined goodwill as:

1. The current value of expected future income in excess of a normal return on the investment in net tangible assets; not a recorded or reported amount unless paid for.
2. The excess of the price paid for a business as a whole over its book value, or over the computed or agreed value of all tangible [and identifiable intangible] net assets purchased.

The first definition defines goodwill in terms of its measurement (i.e., its current value) and then summarizes the recognition rule that goodwill is not recorded or reported unless paid for. The second definition also defines goodwill in terms of its measurement as an excess.
(c) The transaction or other event giving rise to the entity’s right to or control of the benefit has already occurred.¹

In its 1999 Exposure Draft, “Business Combinations and Intangible Assets,” the FASB [1999, paras. 180-185, 190] concluded that goodwill meets the asset definition in SFAC No. 6:

(a) Goodwill is an asset because it embodies future economic benefits.
(b) The economic benefits are nebulous but are reflected by the premium an enterprise commands over the sum of the fair value of its component parts.
(c) Control over the benefits is provided by the acquiring enterprise's ability to direct the policies and management of the acquired enterprise.
(d) The past transaction or event is the transaction in which the controlling interest was obtained by the acquiring enterprise.

Recognition of Goodwill: Under GAAP, goodwill is recognized when it is purchased. Purchase usually occurs when there is a significant change in ownership. A change in ownership results in a new accounting entity, which in turn necessitates a new basis for net assets purchased, including the recognition of goodwill. For publicly owned corporations, the most common change in an accounting entity results from a purchase-type business combination. Goodwill usually is recognized in business combinations under purchase accounting. It is also recognized by subsidiaries issuing separate company financial statements under push-down accounting following a significant change in ownership, and may be recognized incident to the admission or withdrawal of a partner from a partnership. The measurement and amortization of goodwill are separate issues.

¹SFAC No. 6 also noted that an asset commonly has other features that help identify it; for example, an asset may be tangible, exchangeable, or legally enforceable, but these features are not essential characteristics of assets, and their absence, by itself, is not sufficient to preclude an item’s qualifying as an asset. That is, an asset may be intangible, nonexchangeable, and the entity’s rights to obtain its benefits may not be legally enforceable.
Measurement of Goodwill: Under APB 16 [1970, para. 87], goodwill is measured as the excess of the price paid for a business as a whole over the fair value of its identifiable net assets. That is, goodwill is measured as the excess of the cost of an acquired business over the fair value of the tangible and identifiable intangible assets acquired less liabilities assumed. Because goodwill is measured as an excess or residual, accountants have long understood [e.g., Canning, 1929, pp. 42-43] that reported goodwill is a master valuation account. That is, the amount reported for goodwill is intertwined with the amount reported for all other assets acquired and liabilities assumed. Given the cost of an acquired business, the lower the amounts reported for the identifiable assets acquired (and the greater the amounts reported for the liabilities assumed), the greater the amounts assigned to goodwill, and vice versa.

Amortization of Goodwill: Presumably, the recognition and measurement of goodwill as an asset presuppose that it is an asset in the first place. The amortization of goodwill is a separate issue. This paper is concerned mainly with the rationale for the maximum 40-year amortization of goodwill under APB 17, not the nature, recognition, or measurement of goodwill.

PRACTICE PRIOR TO APB OPINION NO. 17

Before APB 17, the accounting for goodwill was prescribed by Accounting Research Bulletin No. 43, "Restatement and Revision of Accounting Research Bulletins" [ARB 43, ch. 5]. Under ARB 43, goodwill was considered a type (b) intangible asset with indefinite life. As a type (b) intangible asset with indefinite life, goodwill cost was either:

1. capitalized until a limit on its useful life or a loss of value was evident, at which time it was amortized or, if worthless, written off as an extraordinary loss; or
2. amortized to expense at the discretion of management even though no present evidence pointed to a limited term of existence or a loss of value.

In an Exposure Draft, the FASB [1999, para. 21] reaffirmed this approach to measuring purchased goodwill.
Criticism of the accounting for goodwill under ARB 43 centered on the acceptability of alternative accounting methods. Some companies amortized goodwill over a short arbitrary period to reduce the amount of the asset as rapidly as practicable. This practice was criticized because it understated income during the amortization period and overstated income in subsequent periods. Other companies retained goodwill as an asset until evidence of loss of value was apparent, and then recorded a material reduction in a single period. This practice was criticized because it overstated income before the loss was recognized and understated income in the period of write-off.5

**APB OPINION NO. 17: RATIONALE FOR REQUIRED AMORTIZATION**

Under APB 17 [1970, para. 27], goodwill acquired after October 31, 1970 was to be amortized by systematic charges to income over its useful life. (Goodwill acquired before October 31, 1970 continued to be subject to the accounting requirements of ARB 43.) Useful life was estimated over a range with upper and lower limits when fixed existence was not determinable, but the amortization period was not to exceed 40 years. APB 17 [para. 29] also noted that when the indeterminate life of an intangible asset such as goodwill was likely to exceed 40 years, the asset was to be amortized over 40 years, not an arbitrarily shorter period.

APB 17 [para. 23] required amortization of goodwill on what it termed an arbitrary basis. It [paras. 22-23] reasoned that even when there was no evidence of limited life or decreased value, amortizing goodwill on an arbitrary basis might recognize expense and asset decrease prematurely, but delaying amortization until a loss was evident might recognize expense and asset decrease after the fact. A practical solution, APB 17 [para. 23] concluded, was to set minimum and maximum amortization periods. It based this conclusion on the observation that few, if any, intangible assets last forever, although some might seem to last indefinitely. Amortizing goodwill was necessary, according to APB 17 [para. 23], because goodwill inevitably disappears at some

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5At various times, the Securities and Exchange Commission (SEC) urged the APB to make the accounting for goodwill more uniform. According to minutes of the September 10-13, 1969 APB meeting [APB, 1969, p. 3], the SEC made known to the APB that it favored mandatory amortization of goodwill over a period of about 33 years.
future date. Since that date is indeterminate, the amortization period is arbitrary.

OTHER LITERATURE

Various writers have commented on the arbitrariness of 40-year amortization of goodwill under APB 17. For example, Kieso and Weygandt [1998, p. 596, emphasis added] noted that the 40-year amortization requirement was based on the premise that only a few, if any, intangibles last forever: "Sometimes, because useful life is difficult to determine, a 40-year period is employed because it is practical, although admittedly arbitrary."

Similarly, Hendriksen and Van Breda [1992, p. 645, emphasis added] noted that "[t]his 40-year period is arbitrary and can be defended only on the basis that it is long enough so that the income of no period is significantly affected. The effect is to neutralize or sterilize the allocation of goodwill with respect to the information presented to investors and creditors."6

BIBLICAL BASIS

Although the APB and various commentators suggested that the 40-year amortization period is completely arbitrary, the Bible suggests that 40 years is a time period of special significance and that the life of a generation does not exceed 40 years.

Significant Time Span: The Bible [New World Bible, 1984] is replete with references to 40 years as a time period of special significance. Isaac and Esau married at 40 [Genesis, 25:20, 26:34]. A man was full-grown at 40 [Exodus, 2:11; Acts, 7:23; cf. Joshua, 14:7; Samuel, 2:10]. At age 40, Moses defended his oppressed brethren and struck the Egyptian taskmaster [Acts, 7:23].7 After another 40

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6 Hendriksen and Van Breda [1992, p. 645, emphasis added] also noted that "[n]ot every one has agreed with the 40-year term for the amortization of goodwill. For instance, banking authorities and the SEC require banks and thrifts to write off unidentified intangibles, such as goodwill, over a period not to exceed 25 years. . . . The Australian Accounting Research Foundation has proposed a maximum of 20 years for goodwill. Businesses, on the other hand, have argued that 50 to 100 years would be more appropriate. Since no theory exists to guide the choice, whatever period is selected is inherently arbitrary."

7 Forty years is also a time span of special significance in several other civilizations. Forty years is the age when Buddha began preaching and the beginning of old age in Japan [see "Properties," n.d.]. In ancient Rome, it took 40 years of hard fighting in Latium and Etruria to restore Rome's power after Rome was sacked by and then ransomed from a marauding Gallic tribe in 390 BC. In modern Turkey, to see someone "once in 40 years" means to see someone "rarely" [Cooper, 1987, p. 18].
years, an angel appeared to Moses in the wilderness of Mount Sinai in a flame of fire in a bush [Acts 7:30]. Saul reigned as king for 40 years [Acts 13:21]. The 40-year reigns of David, Solomon, and Joash [2 Samuel, 5:4; 1 Kings, 2:11, 11:42; 1 Chronicles 29:26; 2 Chronicles, 9:30, 24:1] are proof of divine favor. The lame man that Peter raised up and made to walk as a divine sign was more than 40-years-old [Acts: 3: 7, 23].

Eighty (or two times 40) years were ripe old age [II Samuel, 19:34-35; Psalms, 90:10]. Moses was age 80 when he was summoned by the Lord to be His messenger to tell Pharaoh to free the Israelites [Exodus, 7:7]. Eighty years was the term of Joseph’s service to Pharaoh [Genesis, 41:46, 50:26]. One hundred twenty (or three times 40) years was maximum life span [Genesis, 6:3]. Moses was age 120 when he died [Deuteronomy, 34:7].

Life of Generation: The Bible [New World Bible, 1984] is also replete with references to 40 years as the approximate life of a generation. Most prominent is the 40-year period the ancient Israelites spent in the Sinai wilderness [Exodus, 16:35; Deuteronomy, 2:7, 8:2, 29:5; Joshua, 5:6; Nehemiah, 9:21; Psalms, 95:10; Amos, 2:10, 5:25; Acts 7:36, 7:42, 13:18; Hebrews, 3:9, 3:17] until a corrupted generation died out [Numbers, 14:33, 32:13]. The generation was corrupted by reports of ten of 12 spies who spent 40 days scouting the land of Canaan. Ten of the 12 spies reported that the inhabitants of Canaan were too strong for the Israelites to conquer. Based on these unfavorable reports, most of the Israelites lost faith in the Lord’s promise to give them the Land.

In Islam, the Koran is replete with references to 40 years as a period that is especially meaningful. Forty years is the age at which man attains his full strength [Shakir, 1983, 46:15], and the age at which Mohammed received his call [Bridgewater, 1967, p. 1397]. It is also the age of Mohammed’s first wife at marriage [Gibb, 1974, p. 280], and the age at which Abu Baqr converted, assuming that he converted three years after Mohammed received his call.

The Bible itself repeatedly refers to 40 years as the approximate life of a generation. On the other hand, average life span in Biblical times no doubt reflected high childhood mortality. Assuming two linear distributions, if average life span in Biblical times was 40 years and half the population lived an average of ten years, average life span of those surviving childhood (X) would be 70 years; hence, the Biblical reference [Psalms, 90:10] to three score and ten as average life:

\[
\frac{.5(X) + .5(10 \text{ yrs.})}{2} = 40 \text{ yrs.} \\
\frac{.5X + 5 \text{ yrs.}}{2} = 40 \text{ yrs.} \\
\frac{5X}{2} = 35 \text{ yrs.}
\]
of Canaan notwithstanding His delivering them with signs and miracles from Egypt. Initially, the Lord proposed to strike the Israelites with pestilence and disown them because they lost faith in Him despite His signs and miracles as he brought them forth out of the land of Egypt. But Moses pleaded with the Lord, seeking the Lord’s forbearance for the Israelites, and the Lord relented. The Lord decreed, however, that not one Israelite over age 20 who lost faith would enter the Promised Land. Rather, He decreed that those that lost faith should wander and die in the Sinai over a 40-year period. Only after this 40-year period would their children leave the Sinai and enter the Promised Land. Thus, this 40-year period corresponds to the time the ancient Israelites spent in the Sinai wilderness until the corrupted generation died out.

Forty years is also the time span Ezekiel prophesized that the land of Egypt would be desolate and the Egyptians dispersed among the nations as punishment for their ill treatment of the Israelites and for Pharaoh’s arrogance [Ezekiel, 29:1-11]. Presumably, this 40-year period corresponds to the time the ancient Egyptians would spend scattered among the nations until that corrupted generation also died out.

Similarly, 40 years of peace followed the victory of Othniel and the Israelites over the Mesopotamians [Judges 3:9-11] and the victory of Gideon and the Israelites over the Midians [Judges 8:28]. On the other hand, there was 40 years of Philistine oppression of the Israelites in punishment for their evil ways following the death of Abdon [Judges, 13:1]. And there was 40 years of misrule by Eli culminating in the defeat of the Israelites and capture of the covenant ark by the Philistines [1 Samuel, 4:1-18]. These 40-year rules of the tribal chieftains [Judges 3:11, 8:28, 13:1; 1 Samuel, 4:18] represent roughly one generation each. The 80 years of peace following the victory of the Moabites [Judges, 3:30] represents roughly two generations. The Bible counts the 480 years from the Exodus to the building of the temple [1 Kings 6:1] as 12 generations in 1 Chronicles [6:3-8].

There are several interpretations of 1 Chronicles [6:3-8] as to why the period from the Exodus to the building of the temple spans 12 generations. One interpretation is that Aaron, Eleazar, and Phineas were alive at the start of the Exodus; hence, these generations should be excluded from the other enumerated generations, leaving 12 generations. Another interpretation is that the number of generations from the Exodus to the building of the temple is counted by excluding the first and the last generations, leaving 12 generations. Still another interpretation is a rabbinic commentary [Metzudas David, n.d., of 1 Chronicles (5:29-34) of the
Thus, the 40-year period is not a completely arbitrary time span. Forty years corresponds to the maximum life of a generation. Moreover, a 40-year period is distinguishable from other round-numbers of years. For example, 30 years is less than one generation, and 50 years is more than one generation. Thus, the 40-year period in Israel's history was of real-world significance. The source and significance of the 40-year period in Judeo-Christian civilization stems from this Biblical basis.

**APPLICABILITY TO GOODWILL AMORTIZATION**

Goodwill is an asset because it represents future economic benefits, often (although not always) due to a talented work force or a favorable customer following for some given products and services. The cost of goodwill should be amortized over its expected useful life.

To the extent that goodwill is attributed to a talented work force or a favorable customer following, its maximum useful life cannot exceed the remaining service lives of its work force or the remaining lives of its customers. That is, to the extent that goodwill is attributed to a talented work force or a favorable customer following, its maximum useful life cannot exceed one generation of talented employees or customers.¹⁰

As noted above, the Bible is replete with suggestions that the life of a generation is 40 years. Two former APB members recollected vague connections of the APB 17 40-year maximum rule and the Israelites' 40-year sojourn in the Sinai desert. In a telephone conversation, Sidney Davidson said that "he heard the Hebrew version of the Bible], which (redundantly) included the same enumeration of generations as found in 1 Chronicles [6:3-8] but was not included in the King James version of the Bible. This commentary stated explicitly that the high priesthood passed from father to son for 12 generations from the Exodus to the building of the temple.

¹⁰To the extent that goodwill is attributable to other unrecorded intangible assets, more of the purchase price should be allocated to these assets and less to goodwill. Any remaining goodwill may be attributable to other factors, such as ongoing research and development projects, brand names, marketing campaigns, or favorable asset configurations. To the extent that goodwill is attributable to other factors, it should be amortized over the useful lives of these other factors, usually less than 40 years. But this paper focuses on the correspondence of the 40-year maximum amortization period under APB 17 and one generation of employees or customers. These other factors are not germane to this correspondence as a rationale for the 40-year amortization rule under APB 17.
story" that the APB considered the Israelites' 40-year sojourn in the Sinai desert in its deliberations on goodwill amortization, but does not recall the source of the story or the APB member who introduced it into the deliberations. Similarly, Charles Horngren suggested that the APB 17 40-year maximum rule and the Israelites' 40-year sojourn in the Sinai desert might have been some side comment during the APB's deliberations, but he did not know the source of the side comment. Thus, the 40-year amortization rule under APB 17 has links to the Biblical suggestion that a generation is 40 years.

Indeed, Philip Defliese, APB chairman when APB 17 was issued, was quoted by an anonymous reviewer as noting that, "... the 40-year amortization period was to correspond to the assumed working life of the youngest employee at the time of acquisition. ... that any goodwill attributable to employees must die out by the time the last one leaves...." Thus, even the former APB chairman viewed the 40-year amortization period as corresponding to the maximum service period of one generation of employees.11

CONCLUSION

To the extent that goodwill is attributed to a talented work force or a favorable customer following, its maximum useful life is approximately one generation of employees or customers. As first suggested in the Bible and then elsewhere, the life of a generation is approximately 40 years. Accordingly, the 40-year maximum amortization period of APB 17 has a real-world significance suggested initially in the Bible. It is not a completely arbitrary time span.

11Admittedly, in a rapidly changing business world, the average period individual employees work for a single employer is growing shorter, as is the average life cycle of products and services for which there is a favorable customer following. But the maximum 40-year amortization rule of APB 17 was developed in the late 1960s and finalized in 1970, a far less rapidly changing era. In this less rapidly changing era, the average period individual employees worked for a single employer frequently was their entire career, often 40 years or thereabouts. Similarly, in the less rapidly changing era of the late 1960s, the average life cycle of products and services was longer, suggesting a longer time span for a favorable customer following. The 40-year amortization period may well correspond to maximum useful life of goodwill in a less rapidly changing era of the late 1960s.
Nurnberg: Biblical Basis for Goodwill Amortization

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“Properties of the Number 40,” at http://www.globetroter.qc.ca/gt/usagers/sdr/nu40.htm

AHJ AD HOC REVIEWERS

The editor would like to acknowledge the contribution of the following ad hoc reviewers pressed into service as occasioned when the expertise of the editorial board was challenged or when the time commitment of its members was overextended.

Victoria K. Beard, University of North Dakota
Robert Bloom, John Carroll University
Richard P. Brief, New York University
Tonya K. Flesher, University of Mississippi
Sarah A. Holmes, Texas A&M University
Keith W. Hoskin, University of Warwick
Keith McMillan, Rockhurst College
Cheryl S. McWatters, McGill University
Vaughan S. Radcliffe, Case Western Reserve University
Ram S. Sriram, Georgia State University
Glenn A. Vent, University of Nevada, Las Vegas

The editor is pleased to announce that the following articles were selected by the editorial board as the best of AHJ's Volume 26 (1999). The Academy of Accounting Historians endowed cash awards for the winning papers.

Best in show:

Labor's Changing Responses to Management Rhetorics: A Study of Accounting-Based Incentive Plans during the First Half of the 20th Century
   — Leslie S. Oakes, Mark A. Covaleski, and Mark W. Dirsmith

Awards for excellence:

The Evolution of the Conceptual Framework for Business Enterprises in the United States
   — Stephen A. Zeff

Using Distribution Costs in Decision Making at the Dennison Manufacturing Company, 1909 to 1949
   — Gloria L. Vollmers
Abstract: While accounting researchers have explored international publishing patterns in the accounting literature generally, little is known about recent contributions to the specialist international accounting history journals. Specifically, this study surveys publishing patterns in the three specialist, internationally refereed, accounting history journals in the English language during the period 1996 to 1999. The survey covers 149 contributions in total and provides empirical evidence on the location of their authors, the subject country or region in each investigation, and the time span of each study. It also classifies the literature examined based on the literature classification framework provided by Carnegie and Napier [1996].

INTRODUCTION

Academic interest in the publishing patterns of leading international journals in accounting and finance has been strong for many years. The focus has understandably been on journals published in the English language, which inevitably injects cultural bias into such investigations [see, for example, Carmona et al., 1999]. Nevertheless, the empirical evidence generated by such studies provides bases for assessments of scholars' research track records and career advancement prospects. It also influences decisions made on competitively sought research funding. At the time of writing, the authors are unaware of any empirical study that has specifically examined publishing patterns of internation-
ally refereed journals that specialize in accounting history. Such specialist journals in the English language are small in number and, thus, pose a sample suitable for a longitudinal study.

Accounting history is a growing and influential field of study. The three dedicated journals in the field published in English are the Accounting Historians Journal (AHJ) (U.S.); Accounting, Business and Financial History (ABFH) (U.K.); and Accounting History (AH) (Australia/New Zealand). As the New Series (NS) of AH appeared in its current form for the first time in 1996, the current study will span the four years from 1996 to 1999. AHJ was initially published in 1974, while ABFH initially appeared in 1990. ABFH was published twice yearly to 1993, from which time its publication rate increased to three issues per annum. AHJ and the NS of AH have appeared twice yearly since their inceptions.

Of course, not all contributions to the accounting history literature appear in specialist, international history journals. Many key articles on accounting's past appear in general journals on accounting, such as Abacus, Accounting and Business Research, and British Accounting Review. In addition, accounting history is prominent in journals in the sociological, interpretative, and critical traditions, particularly Accounting, Organizations and Society; Accounting, Auditing and Accountability Journal; and Critical Perspectives on Accounting. Key works in accounting history also appear in other outlets, such as New Works in Accounting History, published by Garland. As a result, this study of publishing patterns in specialist, international accounting history journals profiles a section, albeit an influential one, of the accounting history literature during the designated period. Further research, that examines the international publishing patterns of all journals that feature accounting history, is a topic ripe for future investigation.

The remainder of this paper is structured as follows. The next section reviews recent contributions to the literature on international publishing patterns generally rather than in accounting history specifically. There follows the presentation of the empirical results of the study and, in the following section, a discussion of these results. The final section offers concluding comments and outlines suggestions for further research.

REVIEW OF THE LITERATURE

Jones and Roberts [2000], in their study on international publishing patterns by means of an investigation of leading U.K. and U.S. journals, identified a number of themes in forerunner studies
on leading journals. These authors outlined the key themes or interests they discerned as follows: interest in the prestige of individual journals; interest in evaluating both individual and institutional productivity; interest in aspects of publication and productivity, such as the quality of doctoral programs; factors contributing to published outputs; measures of research productivity; time delay in doctoral productivity; bibliometric distributions; and promotion, among other themes. As they pointed out, the vast majority of data are concerned with U.S. and U.K. journals with very little direct attention being paid to non-U.S. and non-U.K. journals [Jones and Roberts, 2000, pp. 1-2].

The overwhelming conclusion of the prior studies is that U.S. and U.K. institutions dominate the leading journals [see, for example, Heck and Brems, 1986; Heck et al., 1986; Heck et al., 1990; Jones and Roberts, 2000]. In a study of the international content of U.S. academic accounting journals published between 1980 and 1993, Prather and Rueschhoff [1996] found that the percentage of total articles in selected U.S. journals that reflected non-U.S. or international content was generally low but had increased during the study period. However, a notable exception was AHJ as for the study period, international content was found in 42.44 per cent of the total articles in AHJ, constituting 40.68 per cent of total pages [Prather and Reuschhoff, 1996, p. 7].

Jones and Roberts [2000] studied the contents of five leading U.S. journals and five leading U.K. journals for the calendar years 1996 and 1997. In particular, the study investigated the nationalities, as discerned by institutional affiliation, of the authors who had published the 702 articles in these ten journals. The U.S. journals selected were: The Accounting Review, the Journal of Accounting and Economics, the Journal of Accounting Research, The Journal of Finance, and the Journal of Financial and Quantitative Analysis. The U.K. journals chosen were Accounting and Business Research; Accounting, Organizations and Society; Financial Accountability and Management; the Journal of Business Finance and Accounting; and Management Accounting Research. It was found that authors publishing in the U.K. journals were mainly from U.S. and U.K. institutions, with just over one-third of them coming from other countries. However, for the top U.S. journals, only ten per cent of the authors hailed from outside the U.S. These findings led the authors to conclude, “accounting academia is very parochial” (p. 15).

In their study on articles published in 13 “well-respected”
accounting journals during the period 1992 to 1997, Carmona et al. [1999] found that an overwhelming majority of European contributions to these journals were written by scholars affiliated with British institutions of higher learning. In attempting to explain this finding, Carmona et al. [1999, p. 479] pointed out that “the European setting is composed of a complex web of cultures, languages and research traditions whose characteristic traits are not always tracked by publications in well-regarded, English-written accounting research journals.” The authors also suggested that this finding also “posits considerable doubts on the extent to which it is correct to form the notion of European accounting research” (p. 463) [see also Zambon, 1996, p. 409].

Rodgers and Williams [1996] rendered an example of a study analyzing contributions to a single journal, The Accounting Review, over the extended period 1967-1993. By examining patterns of research productivity in The Accounting Review, the authors set out to provide a partial history of the stratification process in U.S. academic accounting. Rodgers and Williams [1996] found that articles in The Accounting Review were dominated by authors from a relatively small number of “elite” U.S. institutions.

Lee [1997] subsequently extended the work of Rodgers and Williams [1996] to determine whether the existence of an U.S. “elite” was a phenomenon confined to The Accounting Review. Lee [1997] examined the composition of the editorial boards of six major accounting research journals from 1963 to 1994. Three of these journals were U.S.-based; namely, Journal of Accounting Research, The Accounting Review, and the Journal of Accounting and Economics, while the other three emanated from elsewhere, Abacus (Australia); Accounting and Business Research (U.K.); and Accounting, Organizations and Society (U.K.). The major finding of Lee’s study was that a perceived U.S. “elite” was not restricted to The Accounting Review, but was a prominent feature of all the journals examined, “irrespective of journal age, geographical location, or scholarly focus” [Lee, 1997, p. 12]. According to Lee [1997, p. 27], such dominance has implications for the manner in which accounting knowledge is produced and tends to restrict somewhat the extent of academic contributions in accounting to resolving practical problems facing the accounting profession [Lee, 1997, p. 27].
METHOD

Publication data were derived from the three specialist accounting history journals published in the English language from 1996 to 1999. It is recognized that the inclusion of journal articles written in English overlooks contributions to specialist journals not published in English. Nevertheless, this approach is consistent with that adopted in recent studies of accounting literature and thereby provides a basis for the comparison of results.

The unit of analysis is the individual article. This study includes research articles, replies, and notes/comments, but excludes editorials, tributes, book reviews, and reports on conferences held. This approach is broadly consistent with that adopted in similar studies [e.g., Zivney et al., 1995; Carmona et al., 1999] except for the inclusion in the current study of commentaries on research. Two such “comments” by Goldberg [1997] and Burrows [1999] both appeared in AH and have been recognized as contributions in this study for two reasons. First, the comments related primarily to the accuracy of assertions made in two books on the history of aspects of accounting in Australia authored by Burrows [1996] and Linn [1996] respectively. Second, the two comments concentrated on the nature and limits of oral evidence in historical research. Consequently, the comments were deemed to be key contributions to the literature with wide interest to accounting history scholars.

A total of 149 contributions were identified for examination and constituted the sample for this study. These contributions were analyzed on the following grounds:

(i) location of authors (country or region/institution)
(ii) country or region studied
(iii) time period studied.

The literature was then categorized according to the literature classification framework provided by Carnegie and Napier [1996].

The location of the author(s) was taken to be the nation-

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1These two comments comprised the total number of articles published in these specialist journals during the survey period that were written by authors affiliated with the University of Melbourne.
ality of the institution or organization with which the author(s) was affiliated on publication. Consistent with prior research, the data are presented and analyzed based on the number of publications, adjusted for the number of authors involved rather than on the basis of numbers of pages or other factors [see, for example, Heck et al., 1990; Borokhovich et al., 1995; Carmona et al., 1999]. For example, where three authors were involved from institutions located in three different countries or regions, each author was allocated a 0.33 weighting to represent his/her respective contribution at face value.

Nine country or region classifications were used to represent both the location of the author and the host country of the study. These are detailed as follows: U.K., U.S., Australia, France, Canada, Asia, New Zealand, Spain, and “Other.” The “Other” classification was used to capture those countries that were less frequently represented. This categorization provided a clear basis by which articles published in each journal could be analyzed and insights on the propensity of scholars to conduct accounting history research beyond their country of origin and/or to collaborate with scholars in other countries.

The host country for each study was identified on examining further each article making up the research sample. Contributions were considered to relate to a particular country or region where that subject country or region could be specifically identified. On occasions, studies were concerned with more than one country and were weighted accordingly (e.g., studies focusing on three different locations were weighted on the basis of a 0.33 allocation for each). Where studies were not clearly set in any specific country, most often in the instance of a contribution on historiography, a classification code of “N/A” was applied. Analyzing the subject country or region has implications for highlighting the “international” nature of the field of accounting history, particularly when considered in light of the location(s) of the author(s) concerned.

Contributions were also analyzed according to the historical time span of the respective studies. Specifically, an article concerned with accounting thought, practice, or regulation in both the 19th and 20th centuries was weighted on the basis of an allocation of 0.5 for each period, unless it was clear that the prime focus was on only one of these centuries. Most often, the time period was conveniently identified by authors in the abstract, keywords, and/or introduction. Where this was not the case, such contributions were examined further to deduce the necessary
information. Where pieces could not be assigned to a specific time period, a classification code of "N/A" was adopted.

In order to gain insights into the themes and approaches adopted by researchers in the contributions comprising the sample, the literature classification framework provided by Carnegie and Napier [1996] was applied. In order to explore and evaluate accounting history literature as the new century approached, Carnegie and Napier [1996] identified broad themes and approaches by which the literature could be classified. These themes and approaches are outlined below:

- studies of surviving business records of firms
- utilization of accounting records in business history
- biography
- prosopography
- institutional history
- public sector accounting
- comparative international accounting history

While this classification framework was found to encompass most of the contributions comprising the sample, a further category, "historiography," was adopted in this study. Contributions were classified as historiography to the extent that their main focus was to discuss, debate, or comment on the "body of techniques, theories and principles associated with historical research" [Parker, 1997, p. 114]. For the purpose of this study, historiography articles were not specifically assigned a particular time span and were, accordingly, accorded the N/A classification code.

RESULTS

Of the 149 components of the sample, 66 were published in ABFH, 47 in AHJ, and 36 in AH. Particulars on the locations of their authors are presented in Table 1. This table provides information on both the number and percentage of total contributions by authors correlated to their country or region.

2The literature classification framework provided by Carnegie and Napier has also been applied by Carnegie and Potter [2000] in a survey of the Australian accounting history literature that was published between 1976 and 1999.

https://egrove.olemiss.edu/aah_journal/vol27/iss2/13
TABLE 1  
Locations of Authors

<table>
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<tr>
<th></th>
<th>U.K.</th>
<th>U.S.</th>
<th>Australia</th>
<th>France</th>
<th>Canada</th>
<th>Asia</th>
<th>N.Z.</th>
<th>Spain</th>
<th>Other*</th>
<th>Total</th>
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<td>1.53</td>
<td>1.53</td>
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<td>%</td>
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<td>% *^</td>
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<td>27.85</td>
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<td>8.05</td>
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<td>1.12</td>
<td>3.69</td>
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</table>

*Includes contributions from authors located in Africa (1), Greece (1), Netherlands (1), Germany (1), West Indies (1), and South Africa (.5).

^Percentage is calculated based on the 149 total contributions identified for the study.
Particular patterns are discerned from the results in Table 1. First, U.K. and U.S. authors appear to be prominent in number across the three specialist journals. U.K. authors provided a total of 51.33 (34.45%) of the 149 contributions in the sample. Americans authored 41.5 (27.85%) of the contributions, while Australians supplied a total of 22 (14.77%). When the results are analyzed by individual journal, the prominence of authors within each, by country or region, becomes more easily seen. U.S. authors were responsible for 33 (70.21%) contributions to AHJ, not surprisingly since AHJ is a U.S.-based journal, published by the Academy of Accounting Historians (AAH) [Coffman et al., 1989]. AHJ’s author constituency broadly reflects the extent of U.S. membership in the AAH (67.9%), even though total membership of the Academy, comprising both individuals and institutions, is spread across 29 countries.

For the U.K.-based ABFH, British authors were most prominent, contributing 33.5 items (51.15%), while French authors were responsible for 12 contributions (18.32%). Of the three journals it is apparent that AH, the journal of the Accounting History Special Interest Group of the Accounting Association of Australia and New Zealand, is generally less “parochial,” although ABFH, as discussed subsequently, was found to publish works from more countries or regions than both AHJ and AH. Both Australian and U.K. authors were prominent in AH, with scholars from these locations making equal contributions (40.28%) for a combined total of 29.

Contributions were, of course, made either by single authors or by authors working collaboratively. The total number of contributors to each journal were ABFH (86), AHJ (70), and AH (50). This translates to an average number of authors per contribution as follows: ABFH (1.30), AHJ (1.49), and AH (1.39). Since accounting history is increasingly recognized as a maturing field of inquiry [Fleischman et al., 1996; Parker, 1999], with many cross-

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1Information on the geographical dispersion of the AAH membership was obtained from the Academy’s website, accessed on May 26, 2000. Coffman et al. [1998] provided information on the membership trends for the AAH during the period 1989 to 1998.

2It is to be recognized that Vol. 7, No. 3 of ABFH was a special issue, focusing on French accounting history. It is comprised of six articles written by French scholars. This single issue constituted 50% of total contributions by French authors in the research sample across these three specialist journals.

3These figures are provided to indicate the extent of collaboration in contributions identified in each journal and have not been adjusted for authors involved with more than one contribution during the period under examination.
border research opportunities awaiting researchers [Carnegie and Napier, 1996, 2000; Carnegie and Potter, 2000], further analysis was conducted to establish the propensity of accounting historians to collaborate with authors located in other countries or regions. Specifically, an analysis of contributions was undertaken to establish the total number that were published by sole authors and the total number co-authored. These patterns of authorship were then analyzed by journal and on a per-country basis. The results are outlined in Table 2.

TABLE 2
Patterns of Authorship

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<th>Multiple authors</th>
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<tr>
<td>%</td>
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</table>

Exploration of the "international" nature of accounting history was undertaken through further analysis of the contributions written by multiple authors. Table 3 outlines the results of this analysis.

TABLE 3
Analysis of Jointly Written Contributions

<table>
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</tr>
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<td>%</td>
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<td>100</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>%</td>
<td>15.4</td>
<td>15.4</td>
<td>30.8</td>
<td>7.7</td>
<td>7.7</td>
<td>7.7</td>
<td>0.0</td>
<td>15.4</td>
<td>0.0</td>
<td>100</td>
</tr>
</tbody>
</table>
The table demonstrates a marked reluctance by researchers to collaborate with authors located outside their country of origin. Only ten contributions (6.6%) featured authors collaborating from different countries or regions (U.S./Aust. 1; U.K./Aust. 3; U.K./Other 5; Aust./Other 1). As outlined in Table 3, only one contribution was identified where an American author collaborated with a colleague from another country or region. ABFH and AH demonstrated a stronger propensity to publish cross-border contributions during the study period.

The vast majority of contributions were written by individuals employed in academic positions or by individuals with close and ongoing affiliations with academic institutions such as emeritus appointments. ABFH generated the most nonacademic authors with six in total; for AHJ and AH only one nonacademic author contributed to each journal. Of the authors connected with academe, data were collected to establish “dominant institutions” in accounting history based on the contributions comprising the sample. Table 4 provides information on those institutions most frequently featured. As indicated in Table 4, a total of 46.5 of the 149 contributions (31.2%) were written by individuals connected with one of only nine institutions of higher learning.

**TABLE 4**
Institutions Offering Most Contributions

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>No. Contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiff</td>
<td>(U.K.)</td>
<td>6</td>
</tr>
<tr>
<td>Newcastle</td>
<td>(U.K.)</td>
<td>6</td>
</tr>
<tr>
<td>Deakin</td>
<td>(Aust.)</td>
<td>5.5</td>
</tr>
<tr>
<td>Exeter</td>
<td>(U.K.)</td>
<td>5.5</td>
</tr>
<tr>
<td>LSE</td>
<td>(U.K.)</td>
<td>5.5</td>
</tr>
<tr>
<td>La Trobe</td>
<td>(Aust.)</td>
<td>5</td>
</tr>
<tr>
<td>Sheffield</td>
<td>(U.K.)</td>
<td>5</td>
</tr>
<tr>
<td>Edinburgh</td>
<td>(U.K.)</td>
<td>4</td>
</tr>
<tr>
<td>Wollongong</td>
<td>(Aust.)</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>No.</td>
<td><strong>46.5</strong></td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td><strong>31.2</strong></td>
</tr>
</tbody>
</table>
Table 5 provides particulars of these dominant institutions based on placements in each journal. For each of the journals examined, a relatively small number of institutions contributed a sizeable percentage of the total contributions published. Based on the results in Tables 1 and 5, the dominant institutions for ABFH are largely U.K.-based, with the journal proving an attractive publication outlet also for researchers from France and Australia. Dominant institutions for AHJ are generally in the U.S., although Newcastle, an U.K. university, was the most dominant supplier of contributions for the period of study. These tables also show that authors from institutions in Australia and U.K. were key contributors to AH.

What is not evident from Tables 1 and 5 is the number of academic institutions represented by contributions identified in each journal for the period. Although more contributions were published in ABFH (66) than in AHJ (47) and AH (36), articles in AHJ represented a greater diffusion of institutions of higher learning, amounting to 45 in total, than was the case for ABFH and AH with 34 and 24 respectively. While Table 3 indicates a general reluctance on the part of U.S. authors to collaborate with scholars from other countries, there is a strong propensity for American authors to collaborate with colleagues from other U.S. academic institutions. The geographical concentration of authors is also reflected in the subject country/region results outlined in Table 6.

Of these three journals, the extent of subject countries or regions under examination was found to be the largest for ABFH with contributions on 16 countries or regions. This result compares with AHJ and AH with eight and five respectively. Of the total contributions, a total of 56.08 (37.64%) dealt with U.K. accounting history, while U.S. accounting history was the subject matter in 32.33 (21.7%) studies. These results may be compared with the location of authors presented in Table 1, wherein it was revealed that British authors contributed 51.33 (34.45%) and American authors 41.5 (27.85%) of total publications. The data presented in Tables 1 and 6 were then analyzed together in order to assess, where possible, the frequency with which authors studied accounting history in venues other than the country or region of their origin. While the number of contributions from British authors equates to articles on British topics, the key points to note pertain to authors located in both the U.S. and Australia. Table 1 indicates that while 41.5 contributions (27.85%) came from U.S. authors, only 32.33 (21.70%) contributions concerned U.S. accounting history. This disparity can be explained by two factors.
TABLE 5

Dominant Institutions per Journal

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>Number</th>
<th>Location</th>
<th>Number</th>
<th>Location</th>
<th>Number</th>
<th>Location</th>
<th>Number</th>
<th>Location</th>
<th>Number</th>
<th>Location</th>
<th>Number</th>
<th>Location</th>
<th>Number</th>
<th>Location</th>
<th>Number</th>
<th>Location</th>
<th>Number</th>
<th>Location</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSE</td>
<td>(U.K.)</td>
<td>4.50</td>
<td>Newcastle</td>
<td>3.00</td>
<td>Edinburgh</td>
<td>2.88</td>
<td>La Trobe</td>
<td>3.00</td>
<td>Wollongong</td>
<td>2.00</td>
<td>Newcastle</td>
<td>2.00</td>
<td>Warwick</td>
<td>2.00</td>
<td>TOTAL</td>
<td>20.50</td>
<td>56.94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiff</td>
<td>(U.K.)</td>
<td>4.00</td>
<td>Case Western</td>
<td>2.00</td>
<td>Georgia State</td>
<td>2.50</td>
<td>Michigan</td>
<td>2.00</td>
<td>Melbourne</td>
<td>2.00</td>
<td>Deakin</td>
<td>2.00</td>
<td>Edinburgh</td>
<td>2.00</td>
<td>TOTAL</td>
<td>17.49</td>
<td>37.21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deakin</td>
<td>(Aust.)</td>
<td>2.00</td>
<td>Georgia State</td>
<td>2.00</td>
<td>New Mexico</td>
<td>2.50</td>
<td>Detroit</td>
<td>2.00</td>
<td>Melbourne</td>
<td>2.00</td>
<td>Edinburgh</td>
<td>2.00</td>
<td>Edinburgh</td>
<td>2.00</td>
<td>TOTAL</td>
<td>26.50</td>
<td>40.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kent</td>
<td>(U.K.)</td>
<td>3.00</td>
<td>Maine</td>
<td>3.00</td>
<td>New Mexico</td>
<td>2.50</td>
<td>Michigan</td>
<td>2.00</td>
<td>Melbourne</td>
<td>2.00</td>
<td>Edinburgh</td>
<td>2.00</td>
<td>Edinburgh</td>
<td>2.00</td>
<td>TOTAL</td>
<td>26.50</td>
<td>40.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>La Trobe</td>
<td>(U.K.)</td>
<td>2.00</td>
<td>Detroit</td>
<td>2.00</td>
<td>New Mexico</td>
<td>2.50</td>
<td>Michigan</td>
<td>2.00</td>
<td>Melbourne</td>
<td>2.00</td>
<td>Edinburgh</td>
<td>2.00</td>
<td>Edinburgh</td>
<td>2.00</td>
<td>TOTAL</td>
<td>26.50</td>
<td>40.15</td>
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<td></td>
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<tr>
<td>TOTAL</td>
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<td>26.50</td>
<td>40.15</td>
<td>17.49</td>
<td>37.21</td>
<td>20.50</td>
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</table>
### TABLE 6
Country or Region Studied

<table>
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<th>France</th>
<th>Australia</th>
<th>Canada</th>
<th>Asia</th>
<th>N.Z.</th>
<th>Spain</th>
<th>Other*</th>
<th>N/A</th>
<th>Total</th>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
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<td>10.33</td>
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<td>2.00</td>
<td>1.25</td>
<td>1.00</td>
<td>7.41</td>
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<td>66</td>
</tr>
<tr>
<td>%</td>
<td>50.39</td>
<td>9.09</td>
<td>15.65</td>
<td>4.17</td>
<td>0.00</td>
<td>3.03</td>
<td>1.89</td>
<td>1.52</td>
<td>11.23</td>
<td>3.03</td>
<td>100</td>
</tr>
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<td><strong>AHJ</strong></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
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<td>0.00</td>
<td>3.00</td>
<td>2.00</td>
<td>1.00</td>
<td>1.00</td>
<td>4.00</td>
<td>7.00</td>
<td>47</td>
</tr>
<tr>
<td>%</td>
<td>8.51</td>
<td>53.19</td>
<td>0.00</td>
<td>0.00</td>
<td>6.98</td>
<td>4.26</td>
<td>2.13</td>
<td>2.13</td>
<td>8.51</td>
<td>14.89</td>
<td>100</td>
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<tr>
<td><strong>AH</strong></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
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<td>1.00</td>
<td>1.50</td>
<td>0.00</td>
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<tr>
<td>%</td>
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<td>8.34</td>
<td>2.78</td>
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<tr>
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<td>11.41</td>
<td>15.00</td>
<td>149</td>
</tr>
<tr>
<td>%</td>
<td>37.64</td>
<td>21.70</td>
<td>6.93</td>
<td>4.75</td>
<td>4.03</td>
<td>3.36</td>
<td>2.52</td>
<td>1.34</td>
<td>7.66</td>
<td>10.07</td>
<td>100</td>
</tr>
</tbody>
</table>

* Includes studies with an emphasis on: India (1), South Africa (.25), Croatia (.33), Africa (1.5), Greece (1), Netherlands (1), Germany (1), West Indies (1), and Italy (.33) for A BFH; and Mexico (1), India (1), and the Middle East (2) for AHJ.

^ Calculation represents percentage of 149 total contributions identified for this study.
First, several articles by U.S. authors examined accounting history in other areas, including Asia, the Middle East, and the U.K. Second, several contributions were given the classification code of "historiography" and were thus deemed not to be country or region-specific. Table 1 also shows that Australian authors were responsible for 22 contributions (14.77%), yet only 7.08 of them (4.75%) related to Australian accounting history. Further analysis reveals that several contributions from Australian authors, particularly those published in AH, were classified as "historiography," while several pieces by Australian authors concerned accounting history in other countries or regions. Of particular note from Table 6 is the relatively few number of efforts that center on Asia (5), Spain (2), and Italy (0.33), which can possibly be explained, at least in part, by language constraints facing authors in these locations.

In order to discern any trends in the time horizons of accounting historians contributing to particular journals, data were collected pertaining to the time periods examined in the 149 contributions. The results are presented in Table 7.

While the time period selected for examination by accounting historians is often determined by the availability of surviving records, certain patterns are evident in the Table 7 information. Most studies (108.65 contributions, 72.92%) were concentrated in the 19th (38.4 contributions, 25.77%) and 20th (70.25 contributions, 47.15%) centuries. The 18th century seemed to hold considerably less interest for accounting historians, but this may be explained by a lack of primary evidence during an era marked by revolutions across the globe, with implications for the contents of archives, then and now. As outlined in Table 7, studies pertaining to the 20th century were most frequently found in ABFH and AHJ with 34 and 26.25 respectively. Contributions relating to the 19th century were most common for AH, with 13.5 contributions (37.5%).

Table 8 presents the results of classifying the articles using the framework provided by Carnegie and Napier [1996]. The table reveals a concentration on institutional history, with business history and studies of surviving records of firms also frequently published. While factors influencing the selection of research activities can be complex, part of the interest in institutional history is

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6 For example, Sikka et al. [1995, p. 114], writing in the context of accounting research in general, argued that research activities are "political" to the extent that they support or challenge traditional frameworks or ideas and prioritize certain
<table>
<thead>
<tr>
<th>Time Period under Examination</th>
<th>ABFH</th>
<th>AHJ</th>
<th>AH</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-16th cent.</td>
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<td>6.85</td>
<td>3.00</td>
<td>6.38</td>
</tr>
<tr>
<td>%</td>
<td>6.85</td>
<td>10.91</td>
<td>5.56</td>
<td>6.37</td>
</tr>
<tr>
<td>16th cent.</td>
<td>1.50</td>
<td>2.28</td>
<td>2.00</td>
<td>2.35</td>
</tr>
<tr>
<td>%</td>
<td>0.00</td>
<td>0.00</td>
<td>10.64</td>
<td>5.56</td>
</tr>
<tr>
<td>17th cent.</td>
<td>0.83</td>
<td>1.26</td>
<td>0.25</td>
<td>1.39</td>
</tr>
<tr>
<td>%</td>
<td>12.50</td>
<td>15.95</td>
<td>13.89</td>
<td>13.89</td>
</tr>
<tr>
<td>18th cent.</td>
<td>7.16</td>
<td>10.91</td>
<td>3.25</td>
<td>14.91</td>
</tr>
<tr>
<td>%</td>
<td>14.91</td>
<td>38.40</td>
<td>38.40</td>
<td>38.40</td>
</tr>
<tr>
<td>19th cent.</td>
<td>17.65</td>
<td>26.90</td>
<td>15.43</td>
<td>25.77</td>
</tr>
<tr>
<td>%</td>
<td>35.00</td>
<td>51.80</td>
<td>51.80</td>
<td>51.80</td>
</tr>
<tr>
<td>20th cent.</td>
<td>34.00</td>
<td>51.80</td>
<td>51.80</td>
<td>51.80</td>
</tr>
<tr>
<td>%</td>
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<td>100.00</td>
<td>100.00</td>
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<tr>
<td>TOTAL</td>
<td>66</td>
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<td>47</td>
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<tr>
<td>% of total</td>
<td>51.80</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>
### TABLE 8
Classification of the Study

<table>
<thead>
<tr>
<th></th>
<th>Institutional</th>
<th>Bus. History</th>
<th>Surviving business records</th>
<th>Bio. #</th>
<th>Historio.</th>
<th>CIAH#</th>
<th>Public Sector</th>
<th>Prosop.</th>
<th>Total</th>
</tr>
</thead>
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<tr>
<td>ABFH</td>
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<td></td>
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<td>22</td>
<td>16</td>
<td>7.5</td>
<td>0</td>
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<td></td>
<td>%</td>
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<td></td>
<td>22.73</td>
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<td>11.36</td>
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<td>5.30</td>
</tr>
<tr>
<td>AHJ</td>
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<td></td>
<td>18</td>
<td>8</td>
<td>8</td>
<td>12.77</td>
<td>5</td>
<td>4.26</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td>38.30</td>
<td>17.02</td>
<td>17.02</td>
<td>10.64</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
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<td>No.</td>
<td></td>
<td></td>
<td>12</td>
<td>7</td>
<td>6</td>
<td>2.78</td>
<td>1.5</td>
<td>8.33</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td>33.33</td>
<td>19.44</td>
<td>16.67</td>
<td>13.89</td>
<td>5.56</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>No.</td>
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<td></td>
<td>45</td>
<td>37</td>
<td>30</td>
<td>14.5</td>
<td>10</td>
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<td></td>
<td>% of total</td>
<td></td>
<td></td>
<td>30.20</td>
<td>24.83</td>
<td>20.13</td>
<td>9.73</td>
<td>6.71</td>
<td>5.70</td>
</tr>
</tbody>
</table>

#It is to be noted that one contribution, by Carnegie and Parker [1996], examined both the life, career, and works of William Butler Yaldwyn and his role in the transfer of accounting technology to and within the southern hemisphere. Accordingly, this study was classified as both biography (0.5) and comparative international accounting history (CIAH).
explained by the relatively recent emergence of historical studies concerned with various aspects of professionalizing activities in accounting. In addition, several studies related to developments in accounting regulations and regulatory processes were also placed in the “institutional” classification. Perhaps not surprisingly, many of the contributions classified as “institutional history” pertained to countries where the accounting profession, the capital market, and associated regulatory systems and processes are generally well developed. Several biographical and historiographical studies were also published, particularly in the later years of the study period. Also of note in Table 8 are the 8.5 contributions that focused on accounting history in more than one country or region. Of these, seven are examples of “diffusion” studies, which, according to Carnegie and Napier [2000, p. 5], are directed at examining “how accounting techniques, institutions and concepts are transferred through a range of different mechanisms.” As Table 8 indicates, wide scope seems to exist for accounting history scholars to develop the field, especially in biography, prosopography, public-sector accounting history, and CIAH studies.

DISCUSSION

The results outlined in the preceding section appear to indicate the existence of a relatively insular international accounting history research community dominated by a small number of institutions and authors. Authors from the U.K. were more likely to publish in the U.K.-based *ABFH*, U.S. authors generally published in *AHJ*; while U.K. and Australian authors were prevalent, in equal portions, in the Australian/New Zealand-based *AH*. Where accounting history contributions were undertaken by more than one author, collaboration was more likely to occur with colleagues located within the same country or region. While this outcome, of course, is determined to some extent by practical considerations such as time, the selection of appropriate research topics, and the accessibility of archival material, there appears to be a general reluctance on the part of accounting history researchers to collaborate with colleagues in other countries or regions.

The geographical patterns of authorship were also reflected

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7 For example, Vol. 9, No. 1 of *ABFH*, guest edited by Stephen Walker, was dedicated to the professionalism of accounting. This special issue of six articles yielded five studies on institutional history, while the other contribution was considered to fall within the domain of CIAH.
in the subject countries or regions in the case of each journal. The subject countries or regions chosen for studies on accounting's past were relatively few in number. U.K. accounting history studies were the most frequent, followed by contributions pertaining to accounting's past in the U.S. In comparison to the U.K. and the U.S., relatively few contributions were concerned with accounting history in Australia and even less so with New Zealand, Asia, and Spain. Such low numbers may not reflect the general state of accounting history research in these locations, particularly Australia [see, for example, Carnegie and Potter, 2000]. There was a paucity of research examining accounting history in more than one country, which is also reflected in the relatively low number of studies assigned the CIAH classification.

In general, authors seemed more likely to concentrate their research on the 19th and 20th centuries. When the studies were classified using the Carnegie and Napier [1996] framework, it became evident that the majority, that is 112 in number or 75.16%, were captured by three of their thematic classifications—institutional history, business history, and studies of surviving business records. The emerging number of contributions on historiography is reflected in Tables 7 and 8 and explains, to a large extent, why 6.71% of total contributions were classified “N/A” for the study period. Interestingly, there were no historiography articles in ABFH during this period. Analysis of the information contained in Table 8 indicates that several avenues exist for further research in areas such as biography, prosopography, public-sector accounting history, and CIAH [see Carnegie and Napier, 1996, 2000; Carnegie and Potter, 2000].

CONCLUSIONS AND FUTURE DIRECTIONS

This study has investigated publishing patterns in three dedicated, internationally refereed, accounting history journals in the English language based on a total of 149 contributions published between 1996 and 1999. These contributions were analyzed according to the location of authors, subject country or region, and the investigation time period. These contributions were then arranged according to the literature classification framework developed by Carnegie and Napier [1996].

While accounting historians lay claim to belonging to an international scholarly community, this does not appear to be reflected by the contributions published in three specialist accounting journals during the period of this study. ABFH, AHJ, and AH each
boast editorial boards comprising leading accounting historians located in a variety of different countries. There are also several "international" accounting history research conferences each year. For instance, each of these journals is associated with a particular accounting history conference.\(^8\) Further, the World Congress of Accounting Historians has been held every four years at different locations around the globe.\(^9\) Notwithstanding these events, contributing authors represent relatively few countries or regions, and even collaborative efforts most often involve authors from the same country or region. Of the 149 contributions identified in this sample, only nine examined aspects of accounting history in multiple countries.

Several worthwhile avenues for further research arise from this study. First, as noted in earlier sections, the sample selected is limited to specialist accounting history journals in the English language during a four-year period. Opportunity exists to perform a similar analysis on a larger sample that would also capture the discipline in general accounting journals, as well as in sociological, interpretative, and critical journals. This extension would enhance claims as to the breadth of international publishing patterns in accounting history and would allow for more in-depth comparisons to be made with the results of similar studies conducted on accounting literature in general.

Research could also be undertaken to explore and elucidate various specific patterns identified in this study. While this article has articulated certain publishing patterns in contributions to three accounting history journals, future research is encouraged to explore why these patterns arise.\(^{10}\) Such research might elucidate why historical researchers located in different countries are prone to publish their outputs in locally based journals and whether this inclination is, in any way, linked to perceptions of journal quality. Researchers might also delve further into the reasons for a broad focus in accounting history on the 19th and 20th centuries, and why certain categories of research remain totally or partially unexplored.

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\(^8\) For example, the second Accounting History international conference will be held in Osaka, August 8-10, 2001. The Cardiff Business School hosts the annual ABFH conference, while the Academy of Accounting Historians also holds an annual research conference in North America.

\(^9\) A World Congress will be held every two years, on a trial basis, from 2000 forward.

\(^{10}\) Similar calls were made by Carmona et al. [1999] on examining publishing patterns in the European Accounting Review.
virtually ignored.

The results of this study provide insights into recent international publishing patterns in a section of accounting history literature in recent years. We are yet to discern whether these patterns are typical of the larger body of accounting history literature or to grasp with confidence why such patterns arise. Further research is likely to assist in elucidating these matters.

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Summary of Author and Institutional Contributors,” Accounting Review, Vol. 61, No. 4: 735-743.


What is the role of book reviews in the Internet era? Such was the query of a colleague upon learning of my appointment as Book Review Editor of the Accounting Historians Journal (AHJ). When we are able to download books and journals, as well as create and read online reviews at our favorite Internet bookstore, does the published book review serve any purpose? Not wanting to eliminate my position at its outset, I decided that a useful way to answer this question would be to revisit and re-examine previous book reviews in AHJ.

BOOK REVIEWS IN AHJ

Since its inception in 1977, AHJ has published approximately 300 book reviews of newly published and reprinted works. A quick glance at the works reviewed, their authors and reviewers, indicates the breadth of publishing in accounting history and provides a who’s who of members of the discipline. We find books and reviews by Zeff, Winjum, Schoenfeld, Wells, Kawahara, Katano, and Woolf. Many individuals have contributed to both sides of the ledger, authoring and editing volumes, as well as reviewing them. Themes appear and re-appear, such as double-entry bookkeeping, standard costing, financial reporting, and accounting theory. The reviews demonstrate the global dispersion of the discipline, with works emanating from Asia and the Pacific Rim, Europe and the U.K., Scandinavia, and North America.

AHJ replaced The Accounting Historian, with its first three volumes reproducing its predecessor. The following section samples the book reviews contained in these three volumes. The
selections are a personal choice, not a statistical sample. They cover the broad range of topics and geography contained in the cohort of 22 reviews. After excerpting these reviews, I provide a brief summary of key points. The latter illustrate the continued value of the review vehicle to highlight ever-important topics in accounting history research and historical research more generally.

EXcerPTS FROM AHJ, VOLUME 1, NUMBERS 1-4, 1974


reviewed by Marc J. Epstein (pp. 36-37)

Though Yamey, Edey, and Thomson provided an introduction and overview to the development of accountancy in England..., no comprehensive study has been made of the development of accounting in this period in England. Further, though the Sombart thesis is a well accepted notion, a rigorous test of that thesis had not been conducted. James Winjum successfully completes both tasks...Central to the entire study is the test of the Sombart thesis that double-entry bookkeeping was 'both a manifestation of the spirit of capitalism in its formative decades as well as a propulsive agency furthering a significant economic and cultural development.' Through an examination of extant accounting treatises and textbooks and merchant accounts of England (1500-1750), Winjum finds the proof necessary to support the thesis...

Over the last few years, discussion has continued on the validity of the Sombart thesis. The contribution of this test of the thesis is obvious. It is also important to note the research methodology employed. Winjum's study provides the results of extensive investigation into both treatises and original records and provides a thorough discussion of the previous support of the thesis by influ-
ential scholars. 'Scissors and paste history' is clearly not being used here in this carefully researched study...

The book is a major contribution to the literature of accounting history generally and English economic and accounting history specifically...The book is highly recommended as evidence of quality accounting history research.


reviewed by Hugh Hughes (pp. 39-40)

The New Deal, broadly perceived as a reform movement, has been the subject of previous comprehensive studies. As Parrish notes in the introduction, he is concerned with illuminating 'a portion of the larger debate; the relationship between American businessmen and reform.' He attempts to identify the reformers, their motivations, and the consequences of reform....

This is no Cinderella tale which Parrish relates - it is a study of legislation incessantly attacked by detractors who in some instances do manage to dilute or eliminate what appear to have been worthwhile reforms. The personal papers are particularly helpful here in shedding light on the feelings and frustrations of both advocates and foes of these measures and of the philosophies motivating them.

An important feature of the book is that it is not primarily concerned with the accounting professor or accounting practices. Accountants... are but one of a number of parties whom Parrish attempts to place in perspective, and it is this perspective that today's accounting practitioner or professor should find of most benefit...

To the accounting historian, the book is signifi-
cant for this same perspective, for the evolutionary study of a government institution of primary importance to accountants, and for its methodology.

EXCERPTS FROM AHJ, VOLUME 2, NUMBERS 1-4, 1975


reviewed by M.C. Wells (pp. 74-76)

This monograph contains a comprehensive and readable account of the development of various theories of production costs by prominent German writers. For those of us who are incompetent in any but our own language, it is a long overdue introduction to a highly developed and rather specialized field...

Of particular interest to accounting historians will be Schoenfeld’s description of the origins of various cost theories, the background of the German Uniform Chart of Accounts and his evaluation of European theory development. Throughout that development, the close connection between cost accounting and economics is clearly drawn.

Schoenfeld has adopted the role of reporter, not advocate. His monograph is a work to be taken seriously and studied closely by all who profess an interest in cost accounting practices and theories. Although the emphasis on German literature is somewhat narrower than the title implies, the English language literature has been considerably enhanced by this addition.

EXCERPTS FROM AHJ, VOLUME 3, NUMBERS 1-4, 1976

reviewed by Hans Johnson (pp. 92-94)

Lord Byron is remembered today for his literary genius and controversial life style. Lord Byron Accounts Rendered is the author's second biographical study of the poet. In her latest effort, Moore has tapped a previously unused wealth of documentary evidence pertaining to Byron's financial affairs. Antonio Lega Zambelli, Lord Byron's trusted aide, kept meticulous records of incomes and expenditures...Such is the volume of documentation that author Moore comments, 'we have Byron's domestic economy so minutely yet unconsciously reflected that there can scarcely be anything comparable in the annals of famous men...'

Accounting historians interested in the biographical use of personal financial information will find the book beneficial as an example of research technique and synthesis of complex evidential material. Moore's approach is chronological with interpretation of important events and personalities based upon her study of the Zambelli records. The author, being very knowledgeable on the life of Byron, carefully weaves personalities, places and events together with monetary exchanges in such a manner as to reveal interesting new insights...

**SUMMARY**

Although the sample of reviews is small and constrained, these reviews and the source books provide the accounting historian with insights that remain relevant long after their initial publication. The reviews provide glimpses that enable the reader/researcher to determine the overall theme of the original work, its potential relevance to his or her own research, and hopefully motivation for the reader to explore further. Reviews can provide a starting point from which to obtain a form of triangulation for research of a similar nature. Finally, the review reveals the reviewer and the perspective that he or she has adopted.
Even if the review does not prompt one to seek out the original source, certain themes evident in these reviews strike a chord with accounting historians:

- Accounting in its context — the reviews all demonstrate that accounting cannot be studied outside of its context, be it economic, political, social, or cultural.
- Accounting as part of everyday life — the account of Byron is a good example of this feature of accounting, a role and the power of which are increasingly recognized in our accounting history research.
- The linkage of accounting to other disciplines — this linkage is evident, be it economics (as with cost accounting in Germany) or the influence of political economy (as in terms of the New Deal).
- The importance of sound methodology — the reviews all note the careful attention to methodology, sources, documentation, and evidence.
- Perspective — as we write history, we adopt a perspective. Recognizing this point of view is necessary in order to write convincingly.

Whether we write books or launch our research on an Internet site, these points remain a relevant and requisite part of our accounting history craft.
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Accounting and Business Research
Volume 30 Number 4 Autumn 2000

Contents

Articles
The investment opportunity set and the voluntary use of outside directors: New Zealand evidence
M. Hossain
S.F. Cahan
M.B. Adams

Performance measurement and the use of league tables: some experimental evidence of dysfunctional consequences
Kevin Keasey
Philip Moon
Darren Duxbury

Incentives and disincentives for voluntary disclosure by pension funds: international evidence
Paul J. M. Klumpes

FRS3 earnings, Headline earnings, and accounting-based valuation methods
Stephin Lin
Martin Walker

Is true and fair of over-riding importance?: a comment on Alexander's benchmark
Christopher Nobes

Detecting earnings management using cross-sectional abnormal accrual models
K. V. Peasnell
P. F. Pope
S. Young
Accounting, Business & Financial History

Since the commencement of the 1979 economic reform programmes accounting in China has been subject to many changes. Considerable efforts have been made to advance our understanding of current practice of Chinese accounting. However, the history of accounting thought and practice may be significant in terms of understanding present attitudes exhibited within the profession. Chinese accounting has a long history. It once took the lead in the world in ancient times and made a great contribution to the development of world accounting. It is with the intention of extending knowledge in the important field that a special issue of Accounting, Business & Financial History is to be published on “Accounting history: China's Contributions and Challenges.”

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This special issue is to be published in the first quarter of 2002. Papers will be subject to the usual review process. Submissions should be made no later than the 31 January, 2001 to: Dr. Wei Lu, Department of Accounting and Finance, Monash University, Caulfield Campus, PO Box 197, Caulfield East, Victoria 3145, Australia.
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