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ACCOUNTING HISTORIANS JOURNAL

Statement of Policy

The Accounting Historians Journal is an international journal that addresses the development of accounting thought and practice. AHJ embraces all subject matter related to accounting history, including but not limited to research that provides an historical perspective on contemporary accounting issues.

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.

4. Authors who use a critical or new theoretical framework to examine prior historical interpretations of the development of accounting thought or practice should include a discussion of the rationale for use of that framework in the manuscript.

5. In performing all analyses, authors should be sensitive to and take adequate account of the social, political, and economic contents of the time period examined and of other environmental factors.

6. While historians have long debated the ability to assign causation to particular factors, we encourage authors to address and evaluate the probable influences related to the problem or issue examined.

7. Authors should clearly state all their interpretations of results, and the conclusions they draw should be consistent with the original objectives of and data used in the study. Interpretations and conclusions should be clearly linked to the research problem. Authors also should state the implications of the study for future research.
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Three (3) copies of manuscripts for publication review should be submitted to Professor Richard Fleischman, John Carroll University, University Heights, OH 44118, U.S.A. There is no submission fee, although authors are urged to consider joining The Academy of Accounting Historians by completing the membership application form on the inside of the back cover. The Accounting Historians Journal will accept a variety of presentation formats for initial submission as long as the writing style is reflective of careful scholarship. Notwithstanding, authors should attend to the following guidelines:

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3. a limited number of content footnotes which appear at the bottom of the appropriate page
4. a limited number of tables, figures, etc., appended at the conclusion of the text, but whose positioning in the narrative is indicated
5. References are to appear in brackets within the text. Specific page numbers are mandatory for all direct quotes but are optional otherwise.
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THE TELLING POWER OF CCA —
A NEW ZEALAND ORAL HISTORY

Abstract: This report presents results of research on the failure of the inflation accounting standard in New Zealand. Presentation of the results in three narratives highlights that any such research is a series of interlocking and overlapping events, and that narrative is a direct and efficient means of communicating both causal and transactional components which contributed towards the outcomes. Isolation of the three narratives was chosen to demonstrate that it is not useful to extol an explanatory or interpretative paradigm for accounting history if it is advocated at the expense of sequential accounts of events.

To undertake an oral history project in accounting is to be immersed in narratives of those to whom the microphone is directed. As researchers listen and then transcribe, they imbue resonances and drama, even trauma, from accounting events as experienced by their group of interviewees, to the point when

Acknowledgments: The initial encouragement and support for this project was from staff at the Victoria University School of Accounting and Commercial Law, especially Dr. Bhagwan Khanna and Professor Tony van Zijl. Professor Geoff Whittington’s assistance was also valuable in further development of the research. Encouragement and advice from Haim Falk is also acknowledged. Thanks are also due to participants at the presentation of an early draft of this study to the European Accounting Association Conference in Venice in April 1994. Staff at the Institute of Chartered Accountants of New Zealand, in particular April Mackenzie, encouraged this research while I was employed in the Accounting and Professional Standards Department at the Institute. Support was provided by the Richard Vangermeersch Award, and the assistance of Barbara Merino, Donna Street, Richard Fleischman, and other members of the Academy of Accounting Historians is acknowledged. However, the chief debt, as with all oral history studies, is to the participants themselves, as they were prepared to offer personal and unique insights into events in their own lives and the impact of their efforts on the development of best accounting practices in New Zealand.
debate on narrative and counternarrative [Funnell, 1998] seems unrelated to the day-to-day problems of recording, transcription, analysis, and writing up. However, acting on the proposal by Funnell [1998, p. 144] that “to comprehend the constitutive effect of the narrative is to open the prospect for liberation from our sanctioned and settled past,” the following report of this oral history research project was isolated into three narratives. The separation illuminates the constitutive power of narrative in accounting history and, from such illumination, an advocacy of the utility and role of narrative.

One aspect of narrative analyses in literary studies is the identification of hegemonic forces which influence, shape, and order the meanings of events and the manner of remembrance. There are exemplary studies in other disciplines, such as the analysis by Landau of “Human Evolution as Narrative” [1984] in which was presented an analysis of narrative used in accounts of human evolution, utilizing established methods of analysis of folk stories. Just as explanations of human evolution inevitably utilize narrative and can be analyzed using literary methods, so also research histories can be analyzed as struggles for success, with both malevolent and benevolent powers driving events outside the control of individuals.

In this case of the debate about current cost accounting (CCA) and the introduction of “inflation accounting standards,” the hegemonic process is one whereby the interests of other groups (account preparers and users) are coordinated with those of the dominant group. However, hegemony, as a social process, is continually resisted, limited, altered, and challenged [Brow, 1990, p. 1]. The failure of the CCA standard is one example of such resistance; ultimately, it delineated limitations on the standard-setters’ power. It is inevitable to the normative nature of standard setting that the process should produce standards which could fail. A failure in the standard-setting process can be clearly understood when a narrative structure identifies the significance of different events in the process of resistance and change. Added to this are the perceptions of those involved who, with the benefit of hindsight and contemplation, provide their own accounts of the failure which provides an understanding of events different from analyses of the causes of failure based on reasons in company reports.

THE FIRST NARRATIVE: THE RESEARCH PROJECT

The first narrative relates the story of the research, why and how it was developed and the methods used. This introduc-
tion ensures that other scholars may gain sufficient information not only to judge the results of the research but also to apply or extend these methods if they are deemed beneficial.

The failure of the CCA standard was chosen as an oral history subject because the 1982 promulgation of the CCA standard was rejected on a scale unprecedented within New Zealand's generally "obedient" accounting community.

The failure of current cost accounting standards has been subject to scrutiny elsewhere. For U.K. events see Tweedie and Whittington [1984] and Pong and Whittington [1996], while a summary of continuing developments in Australia in the use of current value accounting is provided by Jones and Love [1995].

Compliance with the standard in New Zealand was less than ten percent of listed company reports over the two to three years of financial reports studied [Peterson et al., 1984]. Unlike other countries, the resistance was not so much from practitioners as much as companies and their boards, largely attributed at the time to the lack of acceptability for tax purposes [Peterson et al., 1984]. Eventually, in October 1985, the standard was dropped. It went out with a whimper, not a bang; yet, these events still continue to impact the development of accounting in New Zealand.

The resonance of this event is such that it is ideally suited for oral history research. Just as the orally transmitted whakapapa of the Maori\(^1\) in New Zealand are not so much genealogies as records of events and people whose resonance continued for much time, so this event, the demise of the CCA standard, has affected and continues to impact the development of accounting. Oral histories have the capacity to pick up such resonances, as in this case where the recall of events is filtered through the current consciousness of the participants ten years after the events.

Debate concerning the merits and problems with oral history methods are a well-trammelled ground for historians over the last two decades. Since a 1991 review of the potential for oral history in accounting [Collins and Bloom, 1991], there have been other advocates of the merits of this method in accounting research. For example, oral history is advocated because it is a dynamic process which creates evidence about the past and allows undocumented perspectives to emerge [Tyson,

\(^1\) Whakapapa are Maori genealogies relating individuals to various tribes and/or ancestors.
Because it provides insights into how people felt about what happened and focuses on individual experiences, reactions, and aspirations, this approach enables participants, rather than historians, to reconstruct past events [Allen and Montell, 1981, p. 20; Hammond and Sikka, 1996, p. 79; Thompson, 1988, p. 99] and addresses the problem of belief transference by the historian [Merino and Mayper, 1993, p. 244; Tyson, 1996, p. 2]. The multiplicity of experiences of individuals involved in an event such as the CCA debate challenges simple causal explanations for the failure of the standard. Hammond and Sikka [1996, p. 81] described the potential of oral history was to show that "history is a lived experience which is full of contradictions, contestation and unforseen consequences.”

Nevertheless, the merits of the methodology are still debated, especially the subjective nature of the testimonies, because they are complex cultural products [Edwards, 1993, p. 28]. Specifically, the memory of past events may be subject to biased reinterpretation, selective retention, or innocent amnesia. In addition, the context in which the interview is undertaken is very important to the perspective supplied. "We who use life stories need to understand . . . they always have to be structured, according to known conventions, in order to convey the desire . . . of this teller to present a self to the listener, at this particular moment" [Tonkin, 1990, p. 34].

It is not the purpose of this report to review fully the merits and disadvantages of this method. Suffice it to note that the oral history approach requires a conscious trade-off between the potential and the problems in such a method, given the time available and the opportunities presented in the ongoing research process. In this case, the research began in August 1993. Assistance from the Oral History Section of the National Library of New Zealand included the Fyfe and Manson [1991] guide, Oral History and How to Approach It, the ethical code established by the National Oral History Association of New Zealand, the legal release form, and the interviewee information sheet which has to accompany any tape deposited in the archives. The use of a legal release form at the start of each interview was particularly important as it reminded interviewees that their agreements meant tapes and transcripts would move into the public domain. All interviewees signed this form unconditionally although the form does allow for conditions on release if required.

An initial approach was made to those who were considered to be most cognizant of these events. Of the ten men ini-
tially approached or corresponded with, two did not reply. A lengthy communication with one potential interviewee, who considered that the research should focus only on technical aspects of CCA, resulted in his declining the interview for the proposed subject matter of this project. After starting the interviews, four more interviewees were approached, resulting in eleven interviews between August 1993 and February 1994 (see Appendix A). The length of interviews varied, most being approximately one hour.

It can be observed from Appendix A that the standard setters and academics interviewed formed a homogeneous group of New Zealand *pakeha* males. This project did not attempt to seek responses from rank-and-file practitioners or from corporate financial controllers. Although one of the strengths of oral history is its capacity to allow other voices (especially of minority groups) to be heard [Hammond and Sikka, 1996, p. 79], this would have resulted in a much extended field of inquiry.

The objective of this project, as described in the letters to interviewees requesting their participation, was to use oral history techniques in order to contribute to the historical record of the CCA debate in New Zealand; in particular, asking about recollections or reminiscences of the events surrounding the dropping of the CCA standard and how this debate revealed aspects of the relationship between practitioners and accounting standard-setting authorities between 1975 and 1985. The emphasis in the research shifted to the first objective as there was little interest by interviewees in the second objective. Comments in response to the questions concerning the second objective were perfunctory or disinterested.

The questions asked of each interviewee were:

1. What events before the standard was promulgated indicated that there might be considerable noncompliance?
2. What key events caused the withdrawal?
3. Do you think CCA as an accounting standard is likely to be resurrected during other periods of inflation?

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2 This term means a white/Caucasian New Zealander. The uniformity of the gender, race, and status of the subjects meant those interviewed all provided a sense that they were men living their lives “as their own.” This emphasis is widely recognized by oral historians; for example, in Bertaux-Wiame’s [1982, p. 193] study, she noted it was from their work that men derive their sense of identity, and present themselves “as the subjects of their own lives — as the actors ... in contrast with men’s accounts, women will not insist on what they have done; but rather on what relationships existed between themselves and persons close to them.”
4. What was the impact on the status of the profession?
5. What does this event tell us about what users want from financial statements?

Interviews progressed in a relatively unstructured manner. Sometimes after termination the interviewees would move on to personal reminiscences or memories of different individuals involved and subsequent events in their lives. In other cases, the interviewees would answer largely on the basis of questions asked, choosing not to recall or comment on issues they did not consider within the scope of the questions.

Following the copying and transcription of all tapes, a copy of the interview was sent to each interviewee with a progress report in August 1994. Master copies were lodged with a copy of transcripts and a project report in the Oral History Archives in Wellington, New Zealand upon completion of the research.

The most effective method of analysis was utilization of a "cut-and-paste" method, facilitated by holding data in multiple files on a computer with duplication marked carefully. This cut-and-paste into 16 topics reduced the 53,000 plus words in the transcripts to about 23,000 words. The responses were then reanalyzed to identify commonalities, differences, or particular phrases which clearly illustrated responses to the topics.

The analysis of the transcripts was an emergent, evolving process because as segments were identified within the data, different connections between segments became apparent. The researcher had to reread transcripts, given the new information and new structures which were emerging within the data. Sorting and sifting led to seemingly interesting and meaningful discoveries. This process could continue *ad infinitum* in the absence of constraints in regards to money, time, or energy.

During the interviews, the interviewees raised related issues including the international context, price controls, the price freeze, inflation rates, the achievements and quality of the Richardson Report, the personality of the prime minister (Sir R. D. Muldoon), the "Waikato Project," and the New Zealand Society of Accountants Awards for Annual Reports.

It is apparent that some other questions could have been used as a starting point. For example, the question "Why was

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3The Waikato Project on Inflation Accounting published purchasing power and price indices, as well as providing education series for practitioners and new graduates.
CCA developed in the first place?" might have given a different emphasis to their perceptions concerning why the standard was eventually withdrawn. However, the original objective of the research was to apply theories addressing the issue of the effect of withdrawal of a standard on the legitimization of the profession through its standard-setting process. The emphasis was not on the technical aspects of current value accounting.

During analysis it became apparent that the differences between the New Zealand and U.K. events were of significance. The thesis topic changed from an initial single objective to two foci — (1) an examination of the similarities and differences between the attributed causes of the failure of the CCA standard from research at the time, compared with the attributed causes from the oral history record; and (2) a comparison of the differences between U.K. and New Zealand events. The resulting thesis was completed by the end of 1994.

THE SECOND NARRATIVE: THE CONSTRUCTION AND WITHDRAWAL OF THE CCA STANDARD

A shared characteristic of the second and third narratives is the objective to "gather the data and present them in such a manner that 'the informants speak for themselves'" [Strauss and Corbin, 1990, p. 21]. The resulting presentation of chunks of transcript inserted into text allows to every degree possible the spontaneous and meaningful ways in which the interviewees' memories were expressed.

The second narrative commenced a considerable time before the research started in 1993. In 1967, the Consumer Price Index in New Zealand started to record annual changes over 4%, the start of a long period of steadily increasing inflation. It did not fall below this level again until 1991. The start of the CCA project was linked in interviewees' minds to this inflation of price indices. The rapid increase was considered to be the driver behind efforts which led to the promulgation of the standard, and a subsequent perceived decrease was considered (by some people) the cause of its failure. Eventually, the Consumer Price Index in New Zealand increased from 6-7% per annum in 1970 to 17% in 1980.

A number of countries published Current Purchasing Power (CPP) proposals throughout the 1970s. In Australia, the Current Value Accounting exposure draft was based on revaluation to replacement cost. When inflation rose sharply in the U.S. in the 1970s, the Securities and Exchange Commission and
the Financial Accounting Standards Board in SFAS 33 required supplementary statements, comprising a "real terms" mixture of replacement cost and purchasing-power data. In January 1974, the U.K. Sandilands Committee was appointed, reporting back on inflation accounting in June 1975. In the U.K., the deliberations of the Morpeth Committee resulted in the development by the Accounting Standards Committee of ED 18, eventually promulgated as SSAP 7.

ED 10, *Accounting for the Changes in the Purchasing Power of Money*, was the first exposure draft published by the New Zealand Society of Accountants (NZSA) in March 1975. The draft was largely based on the U.K. SSAP 7 and similarly recommended the CPP approach. Inflation was over 10% per annum in New Zealand between 1975 and 1988, with the exception of the years in which the government initiated a price freeze (mid-1982-1984). In March 1976, an analysis of the responses to ED 10 was published in the New Zealand Accountants Journal. It was clear that the vast majority of respondents were opposed to CPP, with some respondents preferring to wait and see what was going to happen overseas. Others urged that more research should be undertaken in New Zealand or suggested there would be confusion over presenting two sets of financial statements to shareholders, as required by ED 10. Overall, the CPP method was seen as being seriously deficient although many agreed that it was a step in the right direction.

The National Party in New Zealand won the 1975 elections under the leadership of Rob Muldoon, who was duly declared prime minister. Muldoon was particularly remembered for being of strong character, and the significance of his opposition to attempts to establish the CCA standard for taxable income measurement after the standard as promulgated was frequently mentioned by interviewees because he was an accountant and had given support to efforts in the 1970s to develop a form of inflation accounting.

ED 14, *Accounting in Terms of Current Costs and Values*, published in March 1976, recommended that assets should be shown in the balance sheet at their "value to the business," and profit should be the result of matching costs with revenues, both expressed in current terms.

The Americans... experimented by having some of the big companies disclose the current values of their assets and, in other words, I think they probably had a very sensible approach in that they tried to do it incre-
mentally. Whereas we tried to do it, not only us, but the U.K. and to some extent Australia, tried to go in boots and all; whereas they just said 'No, let's experiment with the valuation, you disclose the current values of your assets,' and I think it just became more apparent that that was a stumbling block. It is a very basic one [Frank Devonport].

In September 1976, the Richardson Committee, a committee appointed by the National Government, released the Report of the Committee of Inquiry into Inflation Accounting. Considering CPP, CCA, and Continuously Contemporaneous Accounting (CoCoA), the report recommended that some form of CCA be required. The inflation rate was then close to 17%. In December that year, the prime minister pledged support for the Waikato Inflation Accounting Research Project. The project was extended to train potential and new employees (accounting graduates) of 120 companies in different "inflation accounting" methods.

Throughout 1977 and 1978, the NZSA increased its involvement in "inflation accounting" education through publications in the Accountants Journal and by offering seminars on CCA in May 1977. However, it was not until December 1978 that GU 1, Supplementary Financial Statements in Terms of Current Costs and Values, was published by the NZSA. GU 1 followed the Richardson Report recommendations very closely.

Parallel to these events was the publication of "inflation accounting" standards elsewhere — SFAS 33, Financial Reporting and Changing Prices, was promulgated in the U.S. in 1979, and in 1980 SSAP 16, Current Cost Accounting, was promulgated in the U.K. In New Zealand there were signs of resistance to change and concern with the immediate effects of CCA on company profits and taxation revenue.

At the end of 1980, there was a plea by the chairman of the Accounting and Research Standards Board, Malcolm McCaw, to members of the NZSA to maintain the commitment to developing a CCA standard. He said, "despite uncertainty in the problems of transition it was essential for the Society to take a firm step in the interests of the public, investors and those who protected investors" [McCaw, 1980, p. 40]. Members were also reminded that many accountants now considered that historic

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4 Readers are referred to Appendix A for a description of the careers of the interviewees.

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cost accounts were not sufficient to satisfy legal requirements for a "true and fair view."

In response to GU 1, ED 25, Current Cost Accounting, was prepared. Although it was very similar to the recommendation of the Richardson Report and to the U.K. SSAP 16, a major difference compared with SSAP 16 occurred in the calculation of the gearing adjustment which took into account revaluation surpluses on fixed assets.

Seven months later in March 1982, CCA 1, Information Reflecting the Effects of Changing Prices, was published by the NZSA. It was almost identical to ED 25 and followed the U.K. SSAP 16 in almost all respects excepting the composition of monetary working capital and the current cost reserve items to which the gearing adjustment was to be applied.

The awareness of the levels of noncompliance led to the offering of a one-day series of workshops and the distribution of a 20-minute video distributed through the NZSA. However, in the first major analysis of 147 companies with a financial year ending around March 1983 [Peterson et al., 1984], there was only an 8.2% compliance rate. A further study [Cameron and Heazlewood, 1985] noted an 8.6% compliance rate with CCA 1 in the reports of 185 companies for reporting periods ending between the end of March 1983 and February 1984. The price freeze through price controls was continued for only a few months after the Labour Party won the election in July 1983. Inflation rates during the freeze had been 6-7%. Inflation rose again to 13-15% for three years before the sharemarket "crash" in October 1987.

Two years later in October 1985, the NZSA decided that the "standard" status of CCA 1 should be dropped, and that it should be reduced in status to "recommended best practice." In the U.K., SSAP 16 was also made nonmandatory. ED 38, Accounting for the Effects of Changing Prices, was developed to replace ED 35 in the U.K., but eventually was not formally issued. SFAS 33 was being reassessed in the U.S.

It's very difficult for a country, both for the profession internationally and for the Government, to go down one path where everyone else is standing still, or going off somewhere else. . . . It's not a field in which New Zealand can go it alone [Sir Ivor Richardson].

This narrative of the events indicates standard setting was seen as a process whereby those controlling the standard setting wished to achieve a public good by improving financial
reporting, but lost their "battle" because of factors beyond their control, such as international events.

I think we did a better job than any of the other countries. The English, Scots had got sorely embarrassed by their weak-kneed approach to the whole thing, they lost the vote and so on and they couldn't even control their own members. . . . The Australians never covered themselves with glory at any stage. They probably were rather pragmatic I suppose, they were aware that there was no great enthusiasm out there in the profession, certainly not amongst the companies, the companies are the last people that wanted to be saddled with current cost accounting. . . . The Australians really fooled around with it and didn't do a great deal [Rex Anderson].

New Zealand provided a scenario which was alternatively described as being "an experimental niche" or "we couldn't do it alone," typical of a cultural ambivalence common to many aspects of New Zealand cultural or intellectual developments. It became apparent in the process of the research that the drivers to the rise and withdrawal of the New Zealand standard were far more influenced by international events than indicated by company reports in that period.

These drivers were different from those identified for the U.K., where the rise in domestic inflation triggered what Mumford [1979, p. 98] described as a five-year cycle of events, ending with a reduction in domestic inflation and interest in reform dwindling. In the U.S., SFAS 33 had required supplementary disclosures to reflect CCA, but did not require a revised balance sheet. There were disagreements in the U.S. concerning the treatment of monetary items and continuing opposition from practitioners. Inflation had fallen to 3.2% in 1983 [Kirkman, 1985, p. 37], and the promised review after five years did not eventuate.

THE THIRD NARRATIVE: CAUSES OF THE FAILURE OF THE CCA STANDARD

The third narrative is focused on the construction of a description of similarities and differences between the attributed causes of the failure of the CCA standard in research in published articles at the time, compared with the attributed causes from the oral history record. This comparison of the two sources demonstrates that utilization of oral history methods
provides a valuable and unique perspective which contrasts with that provided from analyses of written data and company reports.

The Account of Causes of Failure in Published Articles: There were two initial studies of annual reports to identify the attributed causes of noncompliance. Peterson et al. [1984] evaluated the response to CCA 1 after the publication of 147 major corporate annual reports for the next reporting period ending on or after March 31, 1983. This study followed the adoption of the standard by the NZSA in 1982. Of these 147 companies, only 8.2% published supplementary current-cost accounts. Cameron and Heazlewood [1985] also analyzed reports for all accounting periods commencing on or after April 1, 1982 (totaling 185 listed companies) and found an overall compliance rate of 8.6%. The major reasons given for the lack of adoption of CCA in these research investigations were:

1. The benefit of CCA was questioned. This reason was variously stated: "served little practical or useful purpose," "not warranted, confusing, misleading, not cost/beneficial, was inappropriate," "gave no meaningful information." This reason was cited by 49% of companies in the Cameron and Heazlewood [1985] study and 27% in Peterson et al. [1984].

2. There was subjectivity and complexity in CCA according to 31% of the companies studied by Cameron and Heazlewood and 24% in Peterson et al. CCA was seen as lacking understandability and not enhancing comparability. The use of price indices and multiple alternative approaches was seen as confusing.

3. CCA was not mandatory, was not recognized for tax or pricing purposes, and was not a Stock Exchange requirement. 21% of reports in both the Cameron and Heazlewood and the Peterson et al. studies suggested it was being ignored because it did not have legal, fiscal, or economic validity.

4. There was a failure by other public companies to follow the standard, a reason indicated in the Freightways Report [Peterson et al., 1984, p. 90].

In only one case in the Peterson et al. [1984] survey did a company mention that the system was not relevant because of the "declining" inflation rate, while 3 of the 72 companies in the Cameron and Heazlewood study [1985] noted this reason for noncompliance. The artificial decline in the inflation rate
was caused by the wage and price freeze. Further details of the Cameron and Heazlewood results are provided in Appendix B.

Peterson et al. [1984, p. 91] found it “difficult to accept that the reasons mentioned are valid ones for failure to comply with the standard.” In their view, the primary reason was that CCA results in a reduction in reported profits, thus negatively affecting share prices and terms of loan finance. This view was substantiated by comments from the oral history interviews which indicated that management did not want to be seen in a bad light. For example, Bob Pope observed, “There were others who did not like it because it did in fact portray a much poorer result in most cases.”

The results of these two studies were supplemented by Wong’s 1988 research into 15 New Zealand companies which utilized CCA to provide supplementary information to the financial accounts during the period from 1977-1981 (i.e., while CCA was voluntary). These entities showed higher effective tax rates, lower leverage, larger market capitalization, and more capital intensity. All these results are consistent with positivist theories which focus on incentives to change accounting policies.

Reviewing the causes of noncompliance, Cowan [1985, p. 52] divided the opinions of the accounting profession into two groups, those who thought CCA was now a lost cause and those who attributed its failure to lack of support from others inside and outside the profession. He attributed the noncompliance to the following factors:

1. The proposals were not successful because New Zealand had not considered an independent “locally developed” solution but had tried to improvise from methods of accounting for inflation advocated in other jurisdictions [Cowan, 1985, p. 53].

2. There were frustrated hopes as some preparers anticipated that they would initially provide supplementary information using CCA rather than replacing historic-cost-based financial reports. Subsequently, when CCA was proven to be a fully workable standard, it would then replace the modified historic-cost basis. The lack of compliance frustrated this objective [Cowan, 1985, p. 53].

3. The NZSA had failed to appreciate its role in mediating between theoretical or academic purists, and there were constraints experienced by practitioners in applying a
standard which may have been theoretically pure but was too subjective for practitioners.

4. There were seen to be defects in the CCA model. It was too subjective, limited in scope, too complex, and not integrated closely enough with previous techniques of asset measurement.

Cowan [1985, p. 52] argued that the profession had to continue its advocacy of some system of inflation accounting in order to mitigate the extreme misinformation flowing out of accounts based on historic cost, even if it meant adjusting the "product" to meet the needs of "consumers." "This is no time to give up on inflation accounting. The problem which it addresses is much too serious." By then, virtually everyone else had turned their backs on the proposals, and his pleas were largely ignored.

Reasons for Noncompliance from the Oral History: The perceived causes of noncompliance from oral history tapes are listed below, with the more frequently described factors listed first:

1. CCA was not going to be permitted to be used for the calculation of taxable income after companies had seen it as a mechanism to reduce taxable income. This cause was cited by Frank Devonport, John Hagen, Roger Hopkins, Bob Pope, Malcolm McCaw, Don Trow, and John Hagen. A related view was that the Government had not given a strong enough signal of support, such as endorsement by the Securities Commission (noted by Rex Anderson, Malcolm McCaw, and Bob Pope):

   Well, no government was prepared to say they had a tax rate of 90c in the dollar. If they accepted that current cost accounting was the proper basis for reporting financial accounts and for taxation levy, they couldn't drop their tax bills, so they would have had to, or adjust the tax base in some other way, they were just not prepared to do it. It was politically unacceptable. That was the crux of the matter [Bob Pope].

   If Muldoon had said you could have had it for tax, then probably it would have rolled in. . . . People would think they had got a big reduction in tax [Frank Devonport].

Although it was recognized:
We felt obliged to make some modifications to CCA for financial reporting purposes for pragmatic tax reasons. For example, if we had applied CCA across the board for tax purposes there would have been an element of taxation of capital gains. We felt that really in the climate of the times that that would not be acceptable across the board to the public; and so we adopted a compromise of recognizing for tax purposes the benefits of the use of borrowed funds, but only up to the point of the CCA deductions in other respects [Sir Ivor Richardson].

2. CCA was either too complicated or complex, or it was too radical and too fundamental a change, mentioned by John Hagen, Frank Devonport, Roger Hopkins, and Rex Anderson:

   It was more a growing belief by the business community or the financial community generally saying 'This was too complicated. We don't understand it.' There was a sort of gathering storm of protest saying: 'Too complicated' [John Hagen].
   
   This standard was the first one which drove to the heart of the measurement process, and I think again fundamentally that was something that the Society couldn't handle, it was new to them. Here we were putting up a Standard, which said you are going to have to measure things a different way. It is not a question of disclosure and reporting, not a question of how you analyse and classify and report to people, you are going to have to measure it differently and this cut right to the core of the accepted thinking [Roger Hopkins].

3. CCA was not adopted because it showed a lower profit (as noted by Malcolm McCaw) and reported less favorable results (according to John Hagen, Athol Mann, and Don Trow):

   The proposal not to use it for tax purposes was the thrust of the dagger into the body of CCA that took the life out of it. People had not realised, I don't think, that that was the moment that CCA died, especially accountants who were keen to box on; and I think, naively, accountants got a bit of surprise when they found company directors did just not want to produce CCA accounts, because it was contrary to what they had said they were going to do,
and one hadn’t appreciated that these directors, as they always are, always had been particularly in those days, always wanting to show themselves as good performers, never wanting to attract criticism, always taking steps to minimise criticism....There is no way that company directors in general were going to produce CCA information, particularly if say only a third of the companies were going to do it, because their result was invariably going to be a worse result; it would have been the very odd company that might have had a better result, and they didn’t just want to put themselves into the category of those who very clearly had a inferior result [Don Trow].

4. One reason given was that inflation elsewhere was falling (John Hagen), falling in New Zealand (Malcolm McCaw), or ceased to have the impact it had had on “true and fair” (Bob Pope):

Then inflation round the world started to reduce, and pressure for current cost data reduced. Unfortunately the battle was lost [John Hagen].

Inflation disappeared or ceased to have the impact that it was previously having on true and fair reporting [Bob Pope].

5. Another reason was that the indices were too subjective (noted by Frank Devonport and Malcolm McCaw):

We have still got exactly the same problem that was being faced then. This was the problem of measurement. You see, even today we are advocating valuers to value or revalue assets and the valuers are scrambling to try and produce a set of standards for valuation. You can go to two different valuers to get the valuation you want. They differ so much, and I think this is basically the same problem as you had with CCA [Frank Devonport].

6. John Hagen and Athol Mann considered that noncompliance will follow if the market does not like the standard:

If I adopted CCA and you didn’t, the numbers we reported were distorted in the minds of the public and to some extent by company directors; they said ‘There are not sufficient companies using it, so therefore we are going to stop using it, because it shows us in a bad light even though we really do
understand it and agree it was the right thing to do' [John Hagen].

7. Roger Hopkins and Rex Anderson thought it had been too cumbersome and costly:

It was going to take resources and would cost money to produce something that nobody really saw any great use of [Rex Anderson].

8. John Hagen described one of the causes as a case of the theory being "miles ahead" of the practice:

It was a good example of a standard . . . the implementation of an accounting standard where the theory was miles ahead of the practice and the academic part of the profession was miles ahead of the companies, and there was no intention to take account of politics in accounting standards. . . . I think it is because the standard setters at that time did not comprehend sufficiently, in any way, that you cannot jam standards down peoples throats and hope they will accept them. And if they don't like them, then the business community will scuttle them.

9. Roger Hopkins noted that we had learned to live with (modified) historic cost and allow for it:

They know how, for instance, allowances for depreciation on historical cost are not going to allow for the cost of replacement, but they know that and understand it and they make, just as the corporate director used to do, the necessary adjustments, if they want to transfer from that model into the real world of decision making.

10. A further factor was conservative boards of directors:

I was sure in those days that a lot of Boards of Directors just didn't want to even think about it. They just didn't want to go through the hassle of understanding what it was all about . . . (there was) a desire to keep on the old ways, and, as I say, there were a lot of members of our profession who gave them some support too. . . . I think probably those of us who were keen on it were so enthused with it that we assumed that we had the right answer, and everybody was going to abide by this [Bruce Christmas].
11. Malcolm McCaw recalled that New Zealand was seen as an “experimental niche:”

A lot of people overseas thought we were an interesting little experimental niche out there, and they were interested to see what happened. In the meantime they weren't going to do anything; and banks and those sort who would have been the ones to benefit from this sort of policy, because they had their own ways of working out, working out the accounts and making adjustments to those forecasts to decide on companies and their future prospects et cetera.

12. Tony van Zijl considered that it was realized that the usefulness of the incremental information was close to zero:

Well, I think one of the things that happened was that people started doing empirical research on the incremental information content of that kind of information, and the consensus that emerged from that was that it probably was close to zero. Now that doesn't mean to say that the information wasn't of any value, but rather that there were probably alternative sources for that information, so that in terms, anyway, of usefulness to investors, the information rated very low.

13. According to Athol Mann, companies would not utilize CCA if their competitors were not:

In the interests of their own company, people simply weren’t prepared to make a conversion unless their competitors did, they couldn't afford, they felt, to leave themselves out on a limb in relation to accounts published under a CCA approach if their competitors in the same industry didn’t do the same.

14. Rex Anderson recalled that at that time academics were more inclined to continue debating rather than resolve the issues:

The last thing they want to happen in an academic argument, is for resolution to be reached. It's a plaything, they like to go on; and the fact that somebody knowledgeable by propounding his views can slow the whole process down, in fact ruin it, doesn't worry them, provided that they get their own way.
DIFFERENCES AND SIMILARITIES BETWEEN THE EXPLANATIONS FOR NONCOMPLIANCE

The data presented in the oral history narrative show a variety of viewpoints, some of which provide an understanding different from the existing consensus in the literature on the causes of the failure of the inflation accounting standard in New Zealand. Readers will develop their own comparisons from the information provided and existing knowledge of explanations for the failure of such standards. This account will therefore enable readers to develop further their own understanding of these events, given their individual preferences for any weighting they may wish to place on the different sources.

The two sources are of a very different nature, resulting in very different emphases. Most of the emphases from insights provided by the oral histories were on political or contracting costs, whereas the emphases from annual reports analyses were on comparability, costliness, and usefulness. Although there may be distortions from the effect of memory in oral history, other sources of data have different problems of selectivity and partiality. However imperfect sources may be, the comparison is illuminating.

The comparison between the analysis of the reasons for noncompliance from papers written in 1983-1985 and the oral histories shows the major similarity in these two sources is the “tax issue.” Standard setters looked back with hindsight and determined that the lack of CCA 1 acceptance for taxation purposes was its “death sentence.” Comments were often phrased in the death metaphor.

The major difference was a compelling insistence, especially in the comments of Frank Devonport, Roger Hopkins, Rex Anderson, and John Hagen, that CCA was a fundamental change in the approach to the measurement of income. If one is expecting people’s behavior to change (which it should do in the light of a changed standard), then there are major political considerations inherent in the standard-setting process which have to be taken into account. This point was most emphasized by John Hagen. The analysis closer to the events, as cited, suggested that CCA was “just another standard” being implemented, although some standard setters, on reflection, clearly saw it as being essentially different to other new accounting standards because of the extent to which it represented a fundamental change in accounting principles. The CCA standard was part of the normative system of standard setting, as Kirk [1988,
A normative system, however, has definite limits in its ability to point a policy-making body toward incontrovertible solutions to recognition and measurement problems. Good intentions and hard work cannot overcome those limits."

Other reasons derived from the published analyses of the reasons for noncompliance from papers written in 1983-1985 also appear in the standard-setters’ perceptions. In addition, the oral history reflected memories of an increasing lack of commitment by practitioners, and that CCA would reflect negatively the performance of directors and managers. There were no significant differences in the views of those interviewees who had been in public practice compared with those who had led largely academic careers.

It was also noted by interviewees that directors of larger multinational companies in New Zealand were prepared to "give it a go" in the early stages of the development of CCA, which may be indicative that the thrust to international harmonization was contributing to early support for the standard from the corporate sector. Eventually the lack of compliance overseas, coupled with the anticipated fall in inflation driven by a drop in inflation in New Zealand’s major trading partners, was driving noncompliance in 1982-1983.

This contrasting analysis has highlighted that the reasons provided by companies for not utilizing the CCA standard are not all reflected in the reasons as understood by the standard setters. It could be expected that companies would not attribute noncompliance to the desire not to show management performance in a "bad light," or that it was too radical or too fundamental a change. It is of note that very few company reports referred to the anticipated fall in inflation or the political (price freeze) environment.

This comparison has demonstrated the usefulness of oral history methods to identify contrasting dynamics behind standard setting where hegemonic forces may elude quantitative analysis. Oral histories may not result in major revisions, yet still “add value” to the extant records of an accounting phenomenon.

SEPARATION AND RECONSTITUTION

It is in our nature to reconstitute separate pieces of information into a coherent body of knowledge. The separation of this accounting history research into three narratives was not undertaken in order to prevent the coherency of such reconsti-
tution, but to demonstrate the inevitability of the imposition of narrative in interpretative or explanatory paradigms.

Thus, the first narrative related the progress and completion of a successful research project. A feature of this research was the change in the eventual focus for the thesis. This revised focus was the outcome of the usually undocumented process of ensuring appropriate scope and coherency to the ultimate research report. It can be assumed that the questions asked of interviewees would have been different if the eventual focus of the research had been differently identified to interviewees at the start. However, if scholars had to remain on an unalterable trajectory, the potential for discovery from data could be compromised or endangered. The potential of methods such as oral history is to allow the data to reveal hypotheses previously unanticipated by the researcher, typical of grounded theory where the theory is inductively derived from the study of the phenomenon it represents [Strauss and Corbin, 1990].

Some refusal to participate as described was not unusual in such projects and reflects issues of control over the topic. It is difficult to determine to what extent there was bias in the selection of participants, but the resultant data indicated a breadth of views was obtained.

The second narrative related the rise and fall of the standard in a series of attempts by the standard setters which were ultimately unsuccessful. The interviews revealed an importance of the international context previously unrecognized in New Zealand studies of the failure of the CCA standard [Peterson et al., 1984; Cameron and Heazlewood, 1985; Cowan, 1985; Wong, 1988]. Economic pressures, in particular the inflation rate, were observed to have less impact on the failure of the CCA standard in New Zealand compared with other jurisdictions.

The third narrative combined archival data (written explanations for the failure) with the oral history data in order to make a comparison. As such, it transversed the two paradigms of accounting history as described by Tyson [1996, p. 2]. To study causes of lack of compliance is typical of accounting history studies with an objective of ensuring the utility of accounting history. The third narrative reflected that standard setters consider there are "lessons to be learned" from the failure of the standard. Historical studies should provide a record of past experiences which help in current standard-setting issues; yet, standard setters continue to attempt to disconnect the CCA episode from current standard setting. For example, recently in the U.K. the ASB announced in the progress paper on the exposure
draft of the Statement of Principles for Financial Reporting that, "The Board emphatically states that it has never had any plans to impose a system of current cost accounting..." [Accounting Standards Board, 1996, p. 1] in response to many expressions of concern that the ASB was trying to reestablish CCA. Such strong denial of any likely role for CCA in future standard setting indicates negative resonance from past events is ongoing.

CONCLUSION

The isolation of the three components of this research into separate narratives implies each has now been completed, but in reality all three are ongoing. The data could sustain new research outputs as the debate about current value accounting is ongoing in New Zealand and elsewhere. The composition and understanding of these events might also undergo reexamination and recomposition in the minds of those involved in the events 20 years ago.

Narratives were chosen because they provide a flexible tool with which to communicate events; narrative is not characteristic of particular fields of research. It may be less explicit in the traditional scientific method of research description, but the most rigorous scientific procedures for establishing a method of scientific testing are sequential in structure and in the reporting thereof. It would have been possible to build up at least six or eight narratives, like the layers of an onion, in order to report fully this study of the failure of the CCA standard in New Zealand. The richness from this record is to be found not in any inner kernel of truth, but in the process of reaching the innermost layer as each narrative is read and contextualized, allowing its constitutive effect to be appreciated.

Results presented in this manner highlight that any such research is a series of interlocking and overlapping events. Narrative is not only a direct and efficient means of communicating both causal and transactional elements in events, but also clearly delineates delusions and failures. It is a limitation of narrative that the conceptual complexity of events is simplified into a singular process, but such limitations assist communication and comprehension.

The tool of narrative has sometimes been transformed into a metaphor for "whiggish" tendencies of history — tendencies to highlight successful endeavors which contributed to the ascendancy of the present while casting past failures into unre-
corded shadows. Undoubtedly narrative has been constructed to this end, but such uses should not exclude recognition of its value, or indeed its inevitability, in explanatory or interpretative paradigms.

This study has provided an example validating Carnegie and Napier's [1996, p. 8] view that the strengths of accounting history are from its firm basis in the "archive," which includes the oral records here presented. Furthermore, it demonstrates that "accounting history is enhanced by locating our narratives within an understanding of the specific context in which the object of our research emerges and operates." Such enrichment, through an increasing contribution of oral history studies in different jurisdictions, will ensure a fertile database for future accounting history studies.

REFERENCES


## APPENDIX A

### Interviewees

<table>
<thead>
<tr>
<th>Name</th>
<th>Appointments relevant to the research</th>
<th>More recent activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bruce Christmas</td>
<td>NZSA, president, 1980-1981; Council member, Professional Standards Committee, chairman</td>
<td>practitioner</td>
</tr>
<tr>
<td>Frank Devonport</td>
<td>ARSB, 1968-1979, Financial Subcommittee, 1979-1992</td>
<td>professor at Canterbury; continuing member of FRSB committees</td>
</tr>
<tr>
<td>Malcolm McCaw</td>
<td>NZSA, president, Council, 1976-1985; ARSB, chairman; expert advisor to the Richardson Committee</td>
<td>consultant for Deloittes</td>
</tr>
<tr>
<td>Ivor Richardson</td>
<td>Royal Commission on Inflation Accounting, chairman, 1976; formerly partner in a Wellington law firm</td>
<td>chief judge, Court of Appeal, New Zealand</td>
</tr>
<tr>
<td>Tony van Zijl</td>
<td>NZSA, technical director, 1985</td>
<td>current member of FRSB and ARSB; professor, Victoria University, 1989- present</td>
</tr>
</tbody>
</table>
APPENDIX B

Reasons for Noncompliance from Analyses of Company Reports

The following summary is from the study by Cameron and Heazlewood [1985]. Their study of 185 company reports with reporting dates between 3/31/83 - 2/29/84 overlapped reports studied by Peterson et al. [1984]. In the Cameron and Heazlewood study:

<table>
<thead>
<tr>
<th>Reason</th>
<th>No. of reports</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCA mentioned but no reason given for noninclusion</td>
<td>4</td>
<td>2.2</td>
</tr>
<tr>
<td>CCA mentioned and reasons given for noninclusion</td>
<td>72</td>
<td>38.9</td>
</tr>
<tr>
<td>CCA not mentioned</td>
<td>93</td>
<td>50.3</td>
</tr>
<tr>
<td>Companies presenting CCA statements</td>
<td>16</td>
<td>8.6</td>
</tr>
<tr>
<td>Total</td>
<td>185</td>
<td>100</td>
</tr>
</tbody>
</table>

Of the 72 reports which disclosed reasons for noncompliance, 108 reasons were given:

<table>
<thead>
<tr>
<th>Reason</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCA serves little or no purpose.</td>
<td>16</td>
</tr>
<tr>
<td>CCA is not recognized for tax purposes.</td>
<td>13</td>
</tr>
<tr>
<td>CCA is confusing or misleading to members.</td>
<td>12</td>
</tr>
<tr>
<td>Application of CCA to the company's results would not be appropriate.</td>
<td>11</td>
</tr>
<tr>
<td>CCA methods are too subjective.</td>
<td>8</td>
</tr>
<tr>
<td>There is as yet no agreed uniform method of accounting for changes in price levels.</td>
<td>7</td>
</tr>
<tr>
<td>CCA statements were prepared but not presented.</td>
<td>7</td>
</tr>
<tr>
<td>CCA will not be implemented until it is more widely understood and accepted.</td>
<td>7</td>
</tr>
<tr>
<td>Time spent on CCA is not cost-beneficial.</td>
<td>7</td>
</tr>
<tr>
<td>CCA is not warranted.</td>
<td>5</td>
</tr>
<tr>
<td>Primary accounts already reflect CCA principles in some form or another.</td>
<td>4</td>
</tr>
<tr>
<td>CCA is no longer valid now that the rate of inflation has dropped.</td>
<td>3</td>
</tr>
<tr>
<td>CCA is not recognized for pricing purposes.</td>
<td>3</td>
</tr>
<tr>
<td>CCA results do not allow comparability.</td>
<td>2</td>
</tr>
<tr>
<td>CCA is not a legal requirement.</td>
<td>2</td>
</tr>
<tr>
<td>CCA does not give a true and fair view.</td>
<td>1</td>
</tr>
</tbody>
</table>
THE DEVELOPMENT OF AMERICAN SHIP-ACCOUNTING PRACTICES TO 1900: A COMPARATIVE STUDY OF THREE VESSELS

Abstract: Accounting has always been utilitarian in nature. It adapts to the changes in the business environment by meeting the need for new types of information. The change in waterborne transportation in the U.S. during the 19th century provides an example of such an environmental change that led to a need for accounting adaptation. With the advent of the steamboat, old accounting methods were modified and new ones created to meet the changes in the business environment. In the process, a standardized ship-accounting model was developed. The model can be seen in the accounting records of three ships that sailed at the beginning of the 20th century.

INTRODUCTION

In 1903, the prominent English accounting author, Lawrence Dicksee [1976b, p. 3], wrote: "One of the most ancient (and therefore one of the simplest) modes of transacting business is through the agency of the ship." The early American ship-accounting practices were, for the most part, this simple agency model in which the value of the ship and cargo were combined to act as a separate business transaction for each voyage. The development of new accounting procedures to fit the changing nature of ships and the shipping business in the U.S. shows the adaptive nature of the accounting process as the 19th century progressed.

This need for a new ship-accounting model came with the advent of the steamboat in 1807. Robert Fulton's Clermont showed the world that steam could be used to travel faster on the waterways of the American continent. Faster travel led to

Acknowledgments: The author would like to thank the two anonymous referees for their constructive comments and historical input that helped to streamline this paper and give it a better and more coordinated focus.
changes in the accounting practices of the shipping business. Steamships began to make the aforementioned ship-agency accounting practice obsolete, especially for American riverboat traffic. A ship owner could now make numerous trips with his ship in the same period it took the old sailing ships to complete one tour to some distant shore. The accounting relationship between the business transaction and the ship could now be severed. Ship accounting had to adapt to the changes occurring in the industry. The questions involved in this transition are simple. First, did a "standard" model of accounting develop for American shipping during the 19th century? Second, was the model used by the shipping companies accurately presented in this study?

In an attempt to answer the questions posed above, this paper compares the accounting practices of three ships that sailed and traded at the turn of the 20th century. The first ship studied was a Great Lakes steamer named the *Adella Shores*. The *Shores* was part of a family-owned partnership that shipped salt between Michigan and Chicago aboard a small fleet of lake vessels. Next, the records of the riverboat or packet named the *Betsy Ann* were reviewed. This ship was operated out of Natchez, Mississippi, navigated the lower Mississippi River, and was locally owned by a family corporation with multiple business interests. Finally, the records of the *Richard A. Bingham*, a schooner that plied the lumber trade in the Caribbean, were studied. The schooner was personally owned by the manager of a lumber company in Pensacola, Florida.

The varied modes of ownership of the three ships mirrored that of the shipping industry in 1903. The book, *Workers of the Nation* [Willets, 1903, pp. 569-581], said that there were 3,100 steamers, like the *Shores*, on the Great Lakes at this time. Of this number, only 600 were operated as part of a fleet business. The remainder of the ships were presumably individually owned and operated. Next, at this point in history, there were only about 189 steamers, like the *Betsy Ann*, left on the Mississippi River. Willets indicated most of these were locally owned and operated. Finally, the fleet of American-flagged, ocean-going schooners, like the *Bingham*, numbered greater than 16,000 in 1903. Willets did not discuss an ownership mode for these vessels.

As a final note of introduction, the three ships all sailed before the U.S. Interstate Commerce Commission (ICC) issued orders in 1910 to begin an effort to regulate the waterborne traffic in the U.S. Regulations issued by the ICC focused on
accounting practices for depreciation and maintenance, as well as balance sheet classifications for waterborne carriers affiliated with railroads [ICC, 1910, 1912]. The fact that these standards did not apply to any of the three ships reviewed for this study allows for a comparison of their records with contemporary ship-accounting practices.

THE SHIPS AND THEIR OWNERS

*The Great Lakes Shipper — The Steamer Adella Shores*: Samuel Neff and Sons Shipping Company, the owner of the steamer *Adella Shores*, was a family partnership comprised of the father, Captain Samuel Neff, and his two sons, Captain Sidney Neff and Charles Neff. The Milwaukee-based shipping company began operations in the late 1880s when Samuel Neff moved from Oshkosh to Milwaukee. His two sons joined him in the business in the early 1890s. Sidney acted as a ship captain while Charles was responsible for the management of the business in Milwaukee. The Neff fleet of 1900 consisted of three wooden-hulled steamships — the *Adella Shores*, the *Minnie Kelton*, and the *Edwin Tice*. These three ships acted as the core of their small Great Lakes fleet. In addition, the Neffs purchased two barges, the *Marion* and the *O. J. Hale*, for the 1900 shipping season. The auxiliary log of the *O. J. Hale* noted that she had sailed with the *Adella Shores* between Chicago, Illinois and Manistee, Michigan. The ships were primarily used to transport salt from central Michigan to the port of Chicago for the National Salt Company, the forerunner of the Morton Salt Company. At the turn of the 20th century, salt was an important commodity that was used in a range of products from food preservatives to industrial solvents. The ships in the Neff fleet all had long and storied histories, but only the records of the *Adella Shores* and the barge *O. J. Hale* were used for this study.

According to data from the records of the Runge Collection, the *Shores* was a wooden-hulled steam barge that was built in 1894 for the Shores Lumber Company of Ashland, Wisconsin at a cost of $65,000. The ship was 195 feet long and displaced 734 gross tons. It was built by the Wolverine Boat

1The history of the *Adella Shores* and the Neff Family comes from the documents of the Wisconsin Marine Historical Society and the Milwaukee County Historical Society. These records include the Neff Family Collection and the Runge Collection which is a set of ship identification records and histories.
Company out of Gibraltar, Michigan. The shipping company of Samuel Neff and Sons purchased the ship for the 1898 shipping season for an undisclosed amount of money. At the time of the purchase, Inland Lloyds indicated that the Shores had a value of $35,000. After Samuel Neff died in 1904, the company's assets were split between his two sons. Sidney Neff owned the Shores until his death in 1907. The Adella Shores was then acquired, in 1908, by E. M. Carleton of Cleveland, Ohio, and subsequently sank off Grand Island in Lake Superior on May 1, 1909. Fourteen sailors lost their lives in the accident.

The O. J. Hale was a wooden schooner built in Trenton, Michigan in 1874. It was 138 feet long and displaced 326 tons. When the Neffs purchased the ship for $1,500 in October of 1900, the masts were removed and the hull used as a barge for shipping salt across Lake Michigan. No history was available after the 1900 season.

The River Boat — The Packet Betsy Ann: The packet (or flat-bottomed riverboat) Betsy Ann was built in Dubuque, Iowa in 1899 by the Iowa Iron Works. The ship was the first steel-hulled riverboat on the Mississippi-Ohio River system. The ship was 165 feet long with a beam of 33 feet. Its builder and owner was Rufus F. Learned of Natchez, Mississippi. The boat was named after his wife, Elizabeth. Learned, one of the richest men in Mississippi, was the owner of a lumber company and plantation in southern Mississippi. He operated the Betsy Ann through the Natchez & Bayou Sara Packet Company. From 1899 to its sale to Frederick Way in 1921, the Betsy Ann ran mail, passengers, and goods between Natchez and Bayou Sara, Louisiana, about 100 miles south on the Mississippi River. From 1921 to 1931, the riverboat spent most of its time cruising the Mississippi-Ohio River system shipping cotton and ferrying passengers between Cincinnati, Ohio and Pittsburgh, Pennsylvania. The Betsy Ann was famous for its riverboat races in Cincinnati during the 1920s. In 1931, she was sold to John Hay of St. Louis, Missouri, who used it for towing river barges. In 1940, the Betsy Ann was dismantled and her hull used as a barge.

2 The history of the Betsy Ann was discussed by Frederick Way, Jr., and the biography of R. F. Learned was published in Biographical and Historical Memoirs of Mississippi [Anonymous, 1891]. An additional source is Flesher and Soroosh [1987]. The records of the Betsy Ann are part of the Learned Lumber Company Collection, housed in the Special Collections Department of the University of Mississippi Library.
The Ocean Traveler — The Schooner Richard A. Bingham\textsuperscript{3}: The schooner Richard A. Bingham was named for the infant son of the owner-operator, Francis Frasier Bingham (F. F. for short) of Pensacola, Florida. Born in Michigan in 1872, F. F. Bingham moved to Pensacola in 1890 and began working for the Southern States Lumber Company where he eventually became one of its directors. The company harvested the pine forests of western Florida and southern Alabama. The pine lumber was then shipped from Pensacola to the east coast of the U.S. and to Europe. The lumber trade made the city of Pensacola very rich, and the port of Pensacola became second only to New Orleans for shipments from the Gulf Coast. Pensacola-based ships also made trips to Central America where the pine lumber could be bartered for heavier woods such as mahogany. It was into this market that the Bingham entered in 1903.

The log of the Richard A. Bingham indicated that the ship was chartered (fitted out) on October 21, 1902, and formally launched on January 10, 1903. According to the application to the U.S. Customs Service for a vessel license, the Bingham was a wooden-hulled, one-deck, three-masted schooner that was about 90 feet in length and 26 feet wide.\textsuperscript{4} The ship was built by Robert H. Langford, a small shipyard in the Pensacola area. The ledger of the Bingham indicated that the cost of the ship totaled $7,355. This figure included $3,828 for construction, $2,299 for rigging and sails, and $1,227 for equipment.

The Richard A. Bingham was operated by the A. R. Bingham Shipping Company whose “owner” was Amos Reed Bingham, the father of F.F. Bingham. According to customs records, the actual owner and operator was F.F. Bingham, but his lumber company duties may not have allowed him to operate the ship directly. The Bingham’s captain was Raymond L. Merritt who, according to the bookkeeping records, shared in the profits of each of the ship’s four voyages. For her short life of 350 days and only four voyages, the Richard A. Bingham had a very interesting history including a reported mutiny. Three of

\textsuperscript{3}The records of the construction and shipping accounts are in the Bingham Collection housed at the Special Collections Department of the Birmingham Public Library, Birmingham, Alabama. The biography of F. F. Bingham was told by Rucker and Woolsey [1991].

\textsuperscript{4}The Board of Navigation for the District of Pensacola, Florida through the Application or Owners or Master Vessel for Official Numbers a Signal Letters, issued the Richard A. Bingham, I.D. number 111442 on January 23, 1903 (National Archives Document).
the four trips that the Bingham made were to the Central American country of Belize, which was then a small colonial outpost called British Honduras. On the fateful fourth voyage to Belize, the Bingham was detained by customs authorities in Frontera, Mexico. After this problem was rectified, the ship proceeded to Belize, unloaded its cargo of southern pine, and took on mahogany for the return trip. The Richard A. Bingham went down in a gale off the coast of Belize on December 18, 1903. The partial log entry reads as follows: “Sailed Dec. 17 from Belize to Pensacola and that night went on a coral reef outside of Belize Harbor and became a total loss. Crew saved” [Bingham Account Book, 1903, p.104].

As the historical vignettes show, each of the three ships had a storied past of adventure, romantic voyages, tragedy, and, of course, hard work. The work aspect can be seen in the related accounting records that have survived nearly a century in various archives and libraries. These records show three distinct, but similar methods of accounting for essentially the same activity — the commercial voyage of a ship. The similarities in accounting procedures between each ship show that a “standard” ship-accounting model may have developed over the century preceding the travels of the Adella Shores, the Betsy Ann, and the Richard A. Bingham.

SHIP-ACCOUNTING PRACTICES

A 19th Century Ship-Accounting Model: Comparing the accounting practices of these three ships would be a superfluous undertaking without a base-line accounting model with which to compare the ships’ practices. To detect the base-line model of accounting practices available to these three ships, 16 books published before 1900 were reviewed for their presentation of ship-accounting practices. The books and relevant publication data are listed in Appendix A.

The selection of the books came in three phases. First, a review of Bentley and Leonard’s classic work, A Bibliography of Works on Accounting by American Authors [1970], was conducted. This work noted four specific treatises on ship accounting published in the U.S. before 1900, the authors of which were Ely Stone [1839], Francis Clark [1837], Peter Duff [1846], and James Fleming [1846]. These books were obtained and reviewed. Next, two other treatises on ship accounting, Hemmeter’s [1888] and the Improved Vessel Book [Anonymous, 1881], were reviewed. These books were found in the Great
Lakes Historical Society Library. Finally, the remaining selections were general texts on accounting published during the 19th century. Some of that century's most prominent accounting authors, such as Bennet, Foster, and Marsh, were represented in the study.

Other books were consulted for the study, but only those books which contained a discussion of ship accounting (either ocean-going or riverboating) were used for the development of the ship-accounting model. Two examples of other books consulted for the study included one by the notable team of Bryant, Stratton, and Packard who wrote *Bryant and Stratton's National Book-keeping* [1860]. Another was A.B. Mersevey's *Book-keeping, Double Entry* [1875]. Both books discussed sending and receiving merchandise on consignment aboard a streamer, but neither discussed the method of accounting for the ship itself. Because of this omission, these books were not used to help discover the base-line, ship-accounting model.

Though the list of books consulted for this study does not purport to be an exhaustive review of all accounting books published in the 19th century, it does represent a fair sampling of the contemporary thought on ship-accounting practices. This assumption is based on three facts. The books consulted represented almost every decade of the 19th century so that a developmental pattern could be noted. Second, the books were written by prominent authors of accounting texts as listed by Bentley. Finally, in many cases, such as Bennet's *The American System of Practical Bookkeeping* [1976], the books were found to have had multiple editions published over several decades of the 19th century.

The review of the books provided 14 different principles, methods, and disclosures used by the authors to explain how ship accounting was to be completed. Table 1 shows the distribution by principles, books, and dates. The ship-accounting model provided by the book reviews gives an excellent picture of a "uniform system" of accounts for ships that was widely discussed by the accounting authors of the day and presumably represented actual practice.

The groups of accounting principles derived from the books can be categorized into two sections — *capital accounting* and *financial accounting*. Outside of the double-entry requirements, the principles outlined by the study were all specifically adapted to the shipping industry. They applied equally well to the three geographic areas sailed by the ships — the rivers, the lakes, and the oceans. The model that apparently

<table>
<thead>
<tr>
<th>BOOK</th>
<th>ACCOUNTING PRINCIPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Double-entry accounting or a system that ties to double-entry ledger required</td>
</tr>
<tr>
<td></td>
<td>Purchase of ship as an asset with a ledger account</td>
</tr>
<tr>
<td></td>
<td>Shipments and profits accounted for against the purchase price of the ship</td>
</tr>
<tr>
<td></td>
<td>Shipments, both revenues and expenses are accounted for as individual voyages, not in total</td>
</tr>
<tr>
<td></td>
<td>Specific listing of expenses</td>
</tr>
<tr>
<td></td>
<td>Captain made debtor of the voyage transactions</td>
</tr>
<tr>
<td></td>
<td>The profits are closed to the owner's balance account after specific trip profits are determined</td>
</tr>
<tr>
<td></td>
<td>A ledger account specifically for the ship</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOOK</th>
<th>Voyage Report</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Captain made debtor of the voyage transactions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOOK</th>
<th>Cash Book</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Captain made debtor of the voyage transactions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOOK</th>
<th>Freight Book</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Captain made debtor of the voyage transactions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOOK</th>
<th>Crew Book</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Captain made debtor of the voyage transactions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOOK</th>
<th>Fuel Book</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Captain made debtor of the voyage transactions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BOOK</th>
<th>Total Per Book</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>2</td>
</tr>
</tbody>
</table>

Note: The book number corresponds to the bibliographic listing from Appendix A.

Table 1: A Review of Ship-Accounting Practices Noted in 19th Century Accounting Books

<table>
<thead>
<tr>
<th>ACCOUNTING PRINCIPLE</th>
<th>BOOK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>5</td>
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<td></td>
<td>6</td>
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<td></td>
<td>7</td>
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<tr>
<td></td>
<td>8</td>
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<td></td>
<td>9</td>
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<td></td>
<td>10</td>
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<td></td>
<td>11</td>
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<tr>
<td></td>
<td>12</td>
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<tr>
<td></td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

TOTAL

Accounting Historians Journal, 1999, Vol. 26, no. 1

Published by eGrove, 1999


Published by eGrove, 1999

Accounting Historians Journal, June 1999
developed for ship accounting in the 19th century suited its users well and was adapted to their special needs. The flexibility and adaptability of accounting development are clearly seen in this ship-accounting model. A third category of accounting principles will also be discussed, those comprising management accounting. The accounting procedures of the three ships will be compared and contrasted with this model as a base.

**Capital Accounting Principles:** The accounting procedures dictated by the “model” discussed above indicated that the physical vessel itself should be accounted for using the traditional agency model. This model takes the cost of the vessel, adds to it any revenues generated, and subtracts from it any expenses to arrive at an ending balance or value. An example of this practice (Exhibit 1) comes from Crittenden in his book, *Book-keeping by Single and Double Entry* [1850, pp. 115-122]. This example presents a fictitious purchase of the *Ship Massachusetts* for a voyage to Canton, China from 1849-1850.

**EXHIBIT 1**

**Ledger A Example for 1849**

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Amount (1849)</th>
<th>Date</th>
<th>Description</th>
<th>Amount (1849)</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2</td>
<td>To Thomas Harvey (Purchase)</td>
<td>25,000.00</td>
<td>July 14</td>
<td>By Cash (Passenger fees)</td>
<td>1,800.00</td>
</tr>
<tr>
<td>July 12</td>
<td>Cash (Provisions)</td>
<td>1,160.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 16</td>
<td>Bills Payable (Insurance)</td>
<td>1,926.25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 16</td>
<td>Cash (Port duties)</td>
<td>5.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>28,091.85</td>
<td></td>
<td>Balance to Ledger B</td>
<td>28,091.85</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28,091.85</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ledger B Example for 1850**

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Amount (1850)</th>
<th>Date</th>
<th>Description</th>
<th>Amount (1850)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 1</td>
<td>To Balance from Ledger A</td>
<td>26,291.85</td>
<td>May 9</td>
<td>By Cash (Freight Fees Home)</td>
<td>5,000.00</td>
</tr>
<tr>
<td>May 6</td>
<td>&quot; Adventure to Canton&quot;</td>
<td>2,069.68</td>
<td>May 9</td>
<td>&quot; Sundries (Trading fees while in Orient)&quot;</td>
<td>8,500.00</td>
</tr>
<tr>
<td>June 29</td>
<td>&quot; Cash (Crew's Wages)&quot;</td>
<td>3,808.67</td>
<td>May 9</td>
<td>&quot; Bal to New a/c&quot;</td>
<td>22,500.00</td>
</tr>
<tr>
<td>June 29</td>
<td>&quot; Interest&quot;</td>
<td>1,431.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 29</td>
<td>&quot; Profit &amp; Loss&quot;</td>
<td>2,397.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1850</td>
<td>~</td>
<td>36,000.00</td>
<td>~</td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 1</td>
<td>To Bal. Fr. Old a/c</td>
<td>22,500.00</td>
<td>~</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

Exhibit 15: The explanation of the account entries was added by the author of this paper.
The system discussed by Crittenden was very similar to those highlighted by other accounting authors of the day. This system may have been introduced some 30 years earlier in Bennet's classic 1820 text, *The American System of Practical Bookkeeping*. In a footnote to his *Ship Ocean* example, Bennet wrote:

The Dr. side shows the cost of the vessel and the charges attending her. The cr. what she produced by the freight or sale. If the ship is not sold, Cr. the account first *By Balance* for her present value or for the value of any share you have in her, and then *To or By Profit and Loss* on the account. If the ship is sold the account is to closed *To or By Profit and Loss* only [Bennet, 1842, p. 69].

As the exhibit shows, the owners of the ship took all the revenues and expenses directly against the value of the ship. The actual cost of the ship itself did not change but was "adjusted" for the value of the expenses or revenues related to the voyage or transaction. In fact, Crittenden actually used the terms "produced value" or "costs value" regarding money paid for or gained from the ship [Crittenden, 1850, p. 67]. The owners then closed the account to profit-or-loss after the ship returned home. It must be noted here that the consignments of goods shipped on the *Massachusetts* were accounted for separately from the ship and yielded a profit of $11,700. Finally, in this case, the ship was not sold at the end of the "Adventure to Canton," but was instead transferred to a new account so that it could be used to take advantage of another overseas adventure. It is interesting to observe, however, that when the ship was "transferred" to another account, it was done so at a value of $22,500, or $2,500 less than its purchase price. This reduction shows that the ship owners understood that the ship was depreciating, but they did not set up accounts to match this process directly against the revenues produced. Dicksee [1976a, p. 90], about 40 years later, noted in his auditing book:

SINGLE SHIP COMPANIES almost invariably make no provision for depreciation: the auditor need not waste his time upon any effort to convince his clients of the imprudence of this course, but he should not

---

*The $1,438 "interest charge" to Ship Massachusetts was credited to an interest and discount account which was closed to profit and loss. This charge was for a loan on the purchase of the ship.*
Heier: American Ship-Accounting Practices

forget to append the necessary qualification to his cer-
tificate.

The Single Ship Company that Dicksee talked about is a legal device where a single ship was incorporated into its own company. A freight agent may incorporate several ships separately during a shipping season. This multiple incorporation was done to limit his and his shareholders' liability against claims from ships that might be lost. The losses from one ship's voyage would not hurt the profits from another ship's voyage. To some extent, this process institutionalized the "voyage report" form of ship accounting [Boyce, 1995, pp. 360-378].

Though the context of Dicksee's book defines a legal device called a Single Ship Company, its application can be transferred to small shipping firms rather than larger companies like the Goodrich Transportation Line or the C. Reisse Coal Company that had large modern fleets on the Great Lakes at this time. Although both the Neffs and Bingham's owned more than one ship, their accounting methods mirrored those of Dicksee's Single Ship Company regarding depreciation.

With the Neff records, capital accounting for their ships may have been dictated by Wisconsin state law that taxed ships as personal property based on size and age of the ship. The law read as follows:

Chapter 48 Section 1042a of the Code of Wisconsin for 1898 presented the following rates for determining the value of a wooden ship for property tax purposes based on the age of the ship.

<table>
<thead>
<tr>
<th>Age of Ship</th>
<th>Value per Net Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>one to five years old</td>
<td>$ 9 per net ton</td>
</tr>
<tr>
<td>five to ten years old</td>
<td>$ 7 per net ton</td>
</tr>
<tr>
<td>ten to fifteen years old</td>
<td>$ 6 per net ton</td>
</tr>
<tr>
<td>fifteen years and upward old</td>
<td>$ 4 per net ton</td>
</tr>
<tr>
<td>Wooden Barge fifteen years or</td>
<td></td>
</tr>
<tr>
<td>upward old</td>
<td>$ 3 per net ton</td>
</tr>
</tbody>
</table>

[Sanborn and Berryman, 1898]

Though the shipping companies may not have been concerned directly with depreciation, Wisconsin state law appeared to have allowed for the concept by reducing the value of the ship over time as its hull grew older and began deteriorating.

The type of capital accounting outlined by the model could be identified in two out of three of the vessels used in this study. For the Adella Shores, the manner by which the Neffs accounted for her cost was unfortunately not found in her records; however, the capital accounting for the Shores' com-
panion barge, the *O. J. Hale*, was provided and is shown in Exhibit 2. This exhibit shows that the cost of the *O. J. Hale* was shown as a current expense rather than capitalized. This practice was probably due to the transient nature of ship ownership at the turn of the 20th century, and, as ship histories showed, the high probability of accidents. These arguments may have been the reason why none of the books reviewed for this study mentioned the concept of depreciation.

It should be noted here that neither the Neff records nor the Runge Collection identified the reason for the $4,200 in repair charges. The charges could have resulted from either a recent accident involving the ship, or more likely, they represented the additional cost of placing the vessel into service, expenses such as dismantling the masts and refurbishing the hull to create a barge. In either case, modern accounting would have probably shown this adjustment as a capitalization rather than an expense.

**EXHIBIT 2**

Financial Statement of the Barge *O. J. Hale*

November 1, 1900

<table>
<thead>
<tr>
<th>1900 NO. 1 STATEMENT</th>
<th>NOV. 1ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARGE &quot;O. J. HALE&quot;</td>
<td>1900</td>
</tr>
<tr>
<td></td>
<td>AMOUNT</td>
</tr>
<tr>
<td>HARBOR TOWING</td>
<td>494.10</td>
</tr>
<tr>
<td>CREWS WAGES</td>
<td>663.40</td>
</tr>
<tr>
<td>PROVISIONS</td>
<td>120.34</td>
</tr>
<tr>
<td>TRIMMING</td>
<td>26.95</td>
</tr>
<tr>
<td>MISCELLANEOUS ARTICLES</td>
<td>1.60</td>
</tr>
<tr>
<td>REPAIRS</td>
<td>4201.52</td>
</tr>
<tr>
<td>DAMAGE</td>
<td>7.50</td>
</tr>
<tr>
<td>CARGO DAMAGE</td>
<td>83.00</td>
</tr>
<tr>
<td>LAY UP EXPENSE</td>
<td>50.78</td>
</tr>
<tr>
<td>TONS OF SALT</td>
<td>83.84</td>
</tr>
<tr>
<td>TOTAL RECEIPTS</td>
<td>3356.52</td>
</tr>
<tr>
<td>TOTAL EXPENSES</td>
<td>5649.19</td>
</tr>
<tr>
<td>NET LOSS</td>
<td>2292.67</td>
</tr>
<tr>
<td>PURCHASE PRICE [OF O.J. HALE]</td>
<td>1500.00</td>
</tr>
<tr>
<td>(1900 NOV. 1 AT COST)</td>
<td>3792.67</td>
</tr>
</tbody>
</table>
As the ship histories indicated, F. F. Bingham kept a ledger on the cost of the construction of the *Richard A. Bingham*. The cost of the *Bingham* ($7,355) was used as part of the general recapitulation of the A. R. Bingham Shipping Company. The entries were titled *Resources and Liabilities* in the ledger. The form of these nearly 50 entries was a standard "balance sheet" with some indication that expenses and revenues were part of the adjustments. The focus on this recapitulation appeared to track changes in the net worth of the company. The *Richard A. Bingham* acted as the ledger's primary "debit," or asset, and the purchases of lumber from Southern States Lumber represented its primary "credit," or liability. These "balance sheets" were compiled on an intermittent basis, ranging from weekly to every six months, although they loosely corresponded to the arrival of various ships owned by the company.

The *Betsy Ann* also had a compilation account, which was more a current expense account that was closed periodically. Unlike the *Bingham*, it did not include the cost of the ship and the relevant net worth. There was not any indication of how the *Betsy Ann* herself was accounted for in the specific records reviewed for this study.

*Financial Accounting Principles*: Francis Gedney Clarke [1837] in his book, *Shipmaster Guide and Commercial Assistant*, pointed out that it was the shipmaster's or captain's responsibility to keep account of both the ship and the shipment for the absentee owners. Often they gave him a cash advance with which to conduct business for the owners and pay sailors during the voyage. His responsibility was to make an accounting of those revenues and related expenses. This type of arrangement was noted in the logs and ledgers of the *Richard A. Bingham* whose captain, Raymond Merritt, was obligated to deal the pine lumber he brought south in favor of the mahogany he was to bring back. Captain Merritt received part of the trip's profits, besides his salary of $65 per trip.

Fleming [1846, p. 117] made it clear that the ship's personnel (especially the captains and bookkeepers) were surrogates for the owners and had the responsibility to account for and protect all of the goods consigned to the ship. Stone [1839, p. 24], in his book on steamboat accounting, made stewardship of the customer's assets a foremost concern. He wrote as follows:

In receipting for goods sent on board, great care should be given and exercised in examining their con-
dition, the number of packages, and their shipping marks etc; for any error in this respect by receipting more than actually received or by acknowledging the packages in good order when in fact they are not so, so lays the boat and owner's liable to be sued for damages or deficiencies which do not in fact exist, but for which there may be no remedy.

With the Betsy Ann and the Adella Shores, the owners of the ships acted as freight agents and received fares as such. In the case of all three ships, the type of business engaged in by the shipping company helped to dictate the type of accounting procedure used.

The review of books summarized in Table 1 suggests that the ship-accounting process could range from a sophisticated ledger and journal system to a more basic, single-entry accounting system. All the books agreed that the central focus of the financial accounting system dealt with the individual trips or voyages of the ship. The primary document was the Voyage Report or Trip Report. There may also have been related documents that supported the Voyage Report and accounted for specific areas of the business, such as the crew's wages, cash disbursements, commodities shipped, and fuel usage. Finally, a recapitulation that noted the profits or losses of the trip was prepared for the ship's owners. Dicksee [1876a, p. 90], explained the importance of this document as follows:

The Auditor of Single Ship Companies must bear in mind that, as regards to fraud, there is no such thing as 'safety in numbers' here, for the accounts are usually all in one person's hands — let him, therefore, not omit to examine the Voyage Account Book in detail.

The best example of this type of accounting comes from the flagship of the Neff fleet, the Adella Shores (Exhibit 3). The Shores' Trip Report was a wealth of information for the owners of the ship. It included a listing of revenues and expenses of the trip, a manifest of the cargo shipped, and a report of the fuel consumed by each ship. Unfortunately, this statement does not include the destination and purpose of the trip. According to the records of the O. J. Hale, that information was part of the ship's Captain's Log. The Improved Vessel Book [Anonymous, 1881] contained a Voyage Report very similar to the one presented for the Adella Shores.
EXHIBIT 3

Financial Statement of the Adella Shores June 1, 1900

<table>
<thead>
<tr>
<th></th>
<th>Trip 9</th>
<th>Trip 10</th>
<th>Trip 11</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repairs</td>
<td>3.11</td>
<td>22.86</td>
<td></td>
<td>25.97</td>
</tr>
<tr>
<td>Miscellaneous Articles</td>
<td>.61</td>
<td>1.07</td>
<td>2.99</td>
<td>4.67</td>
</tr>
<tr>
<td>Fuel</td>
<td>104.25</td>
<td>69.54</td>
<td>511.54</td>
<td>685.33</td>
</tr>
<tr>
<td>Loading Salt</td>
<td>72.18</td>
<td>85.85</td>
<td>73.00</td>
<td>231.03</td>
</tr>
<tr>
<td>Unloading Salt</td>
<td>140.35</td>
<td>150.23</td>
<td>121.65</td>
<td>412.23</td>
</tr>
<tr>
<td>Stove Coal</td>
<td>3.00</td>
<td></td>
<td>3.50</td>
<td>6.50</td>
</tr>
<tr>
<td>Provisions</td>
<td>24.07</td>
<td>40.90</td>
<td>106.72</td>
<td>171.69</td>
</tr>
<tr>
<td>Cooperage</td>
<td>24.06</td>
<td>25.75</td>
<td>9.90</td>
<td>59.71</td>
</tr>
<tr>
<td>Shortage</td>
<td>7.60</td>
<td>15.00</td>
<td></td>
<td>22.60</td>
</tr>
<tr>
<td>Laundry</td>
<td>.88</td>
<td></td>
<td>1.41</td>
<td>2.29</td>
</tr>
<tr>
<td>Crew Wages</td>
<td>122.21</td>
<td>122.21</td>
<td>537.83</td>
<td>782.25</td>
</tr>
<tr>
<td>Loading Lumber</td>
<td></td>
<td></td>
<td>385.09</td>
<td>385.09</td>
</tr>
<tr>
<td>Unloading Lumber</td>
<td></td>
<td></td>
<td>294.67</td>
<td>294.67</td>
</tr>
<tr>
<td>Commission</td>
<td></td>
<td></td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Harbor Towing</td>
<td></td>
<td></td>
<td>6.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Freight Receipts</td>
<td>499.21</td>
<td>513.66</td>
<td>2087.16</td>
<td>3100.03</td>
</tr>
<tr>
<td>Net Gain'trip</td>
<td>721.80</td>
<td>513.66</td>
<td>4092.44</td>
<td>5586.89</td>
</tr>
<tr>
<td>Draft of Water</td>
<td>222.59</td>
<td>258.99</td>
<td>2005.28</td>
<td>2486.86</td>
</tr>
<tr>
<td>Draft - lumber</td>
<td>12.8-13.3</td>
<td>13.6-13.8</td>
<td>12.5-13.5</td>
<td></td>
</tr>
<tr>
<td>Draft - rock salt</td>
<td></td>
<td>13.3-14.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tons of Coal</td>
<td>30</td>
<td>20</td>
<td>1571/2</td>
<td>2071/2</td>
</tr>
<tr>
<td>Barrels of Salt</td>
<td>8020</td>
<td>8285</td>
<td>8110</td>
<td></td>
</tr>
<tr>
<td>Lumber - ft</td>
<td></td>
<td></td>
<td>921.133</td>
<td></td>
</tr>
<tr>
<td>Tons - Rock Salt</td>
<td></td>
<td></td>
<td></td>
<td>1304</td>
</tr>
</tbody>
</table>

As noted above, the vast majority of all of the books required a Voyage Report or Trip Report. However, the method and appearance of this accounting varied from book to book. For example, Fleming’s Steamboat Book-keeper’s Assistant [1846] required an actual ship’s ledger. The Richard A. Bingham used a lengthy, double-entry ledger (Exhibit 4) similar to Fleming’s requirements. In addition, the ledger of the Bingham acted as the Voyage Report and the Ship’s Log to inform the owner of important events. The accounting system of the Bingham included a separate ledger for the outbound trip from Pensacola and inbound return trip to Pensacola. A cash ledger to keep a record of the captain’s spending on the trip was also included in an accounting format.

The Bingham ledger highlights an accuracy shortfall in turn-of-the-century accounting. The credit column of this ex-
hibit should have added up to $1,010.03, not $993.38. Correct addition would have made the profits of the voyage $490.64 instead of the $502.69 actually reported. Such accuracy problems may have been the reason for Dicksee's admonition for the auditor to check the Voyage Reports for small shipping companies more closely.

EXHIBIT 4
American Schr. Richard A. Bingham
Trip #1 Pensacola to Belize with Pine & Return with Mahogany

<table>
<thead>
<tr>
<th>1903</th>
<th>DR</th>
<th>1903</th>
<th>CR.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>To: Loading</td>
<td>3 00</td>
<td>Ma</td>
</tr>
<tr>
<td>&quot;</td>
<td>'Mchugh</td>
<td>87 83</td>
<td>r</td>
</tr>
<tr>
<td>&quot;</td>
<td>'Water</td>
<td>2 00</td>
<td></td>
</tr>
<tr>
<td>Feb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>'Bill Health</td>
<td>2 44</td>
<td>Fe</td>
</tr>
<tr>
<td>&quot;</td>
<td>'Medicine Chest</td>
<td>4 40</td>
<td>b</td>
</tr>
<tr>
<td>Jan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>loading</td>
<td>95 20</td>
<td>Ma</td>
</tr>
<tr>
<td>&quot;</td>
<td>'McHugh</td>
<td>5 45</td>
<td>r</td>
</tr>
<tr>
<td>Feb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>'clearance</td>
<td>1 50</td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>'serum, wood, med.</td>
<td>1 20</td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>'fumigation</td>
<td>15 62</td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>'light harbor dues</td>
<td>5 50</td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>'measuring deck</td>
<td>28 75</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>'inward pilotage</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>'labor discharging</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Riggers 1000</td>
<td>13 50</td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>fresh stores</td>
<td>1 25</td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>To: Captain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;</td>
<td>wages bill</td>
<td>22 50</td>
<td></td>
</tr>
<tr>
<td>Mate</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cook</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cub</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mike</td>
<td>22 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liberstein</td>
<td>65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Merrit</td>
<td>62 83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R.L. Merritt- Profit</td>
<td>439 86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. F. Bingham</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>993 38</td>
<td></td>
</tr>
</tbody>
</table>

The Trip Report of the Betsy Ann (Exhibit 5) was more detailed than the other ships and was completed on a series of preprinted forms by the packet's clerk, Charles Gordon. The system used by the packet company was very similar to the system that was outlined in George Soule's New Science and Practice of Accounts [1976]. His book required separate preprinted sheets for the accounting of goods shipped, passengers,
expenses, cash, crew expenses, and fuel. Though the Natchez & Bayou Sara Packet Company combined several of these sheets into one, the system was essentially the same. Even with its sophistication, the basic plan of the accounting system still goes back to that outlined by Ely Stone in the late 1830s in his classic book, *The Steamboat Clerk* [1839].

**EXHIBIT 5**

Statement of the Receipts and Expenditures

STEAMER BETSY ANN

For TRIP 467 and Week Ending July 20th, 1902

<table>
<thead>
<tr>
<th>RECEIPTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>From 35 Cabin Passengers Down</td>
<td>63 25</td>
</tr>
<tr>
<td>&quot; 85 Cabin Passengers Down</td>
<td>124 50 187 75</td>
</tr>
<tr>
<td>&quot; 145 Cabin Passengers Down</td>
<td>81 00</td>
</tr>
<tr>
<td>&quot; 50 Cabin Passengers Down</td>
<td>29 25 110 25</td>
</tr>
<tr>
<td>From Freight, Down</td>
<td>291 01</td>
</tr>
<tr>
<td>&quot; Freight, Up</td>
<td>44 05 335 06</td>
</tr>
<tr>
<td>&quot; Rent Bar</td>
<td>15 00</td>
</tr>
<tr>
<td>&quot; Sale Coal</td>
<td>648 06</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expenditures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stores</td>
<td>333 13</td>
</tr>
<tr>
<td>Fuel</td>
<td>213 75</td>
</tr>
<tr>
<td>Officers</td>
<td>127 20</td>
</tr>
<tr>
<td>Mates Crew</td>
<td>26 85</td>
</tr>
<tr>
<td>Cabin Crew</td>
<td>48 85</td>
</tr>
<tr>
<td>Engineer's Crew</td>
<td>64 05</td>
</tr>
<tr>
<td>Deck</td>
<td>295 40</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expense</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mate</td>
<td>27 35</td>
</tr>
<tr>
<td>Engineer</td>
<td>5 90</td>
</tr>
<tr>
<td>Office</td>
<td>6 90</td>
</tr>
<tr>
<td>Pantry</td>
<td>40 70</td>
</tr>
<tr>
<td>General Expense</td>
<td>73 89</td>
</tr>
<tr>
<td>Agency</td>
<td>34 08</td>
</tr>
<tr>
<td>Rebates and Bills Returned</td>
<td>2 20</td>
</tr>
<tr>
<td>Extra Labor</td>
<td>15 94</td>
</tr>
<tr>
<td>Last Friday</td>
<td>1316 19</td>
</tr>
</tbody>
</table>

Stone’s book was a compilation of procedures used by steamboats on the Ohio River. These accounting procedures evolved from the first Fulton steamboats that sailed the Mississippi-Ohio River system in the early 1800s. For example, records from the second steamboat on the river, the *Vesuvius*
(1814-1822)\(^7\), showed both trip and freight accounting in the only records left from the Natchez Steamship Company. According to Flesher and Soroosh [1987], the \textit{Betsy Ann} represented an exception to this system of individual trip reports because her trips were so short (two to four days) that the accounting was performed weekly for all of the trips completed that week rather than on the traditional trip-by-trip basis. The \textit{Trip Reports} of the \textit{Betsy Ann} were then integrated into the general accounting system of the owners.

The \textit{Voyage Reports} were often summaries of other documents compiled by the ship's bookkeeper. For example, the \textit{Betsy Ann} had a full range of supporting documents, including a crew's list and payroll, expense list, and cash receipts/cash disbursements book, all of which were then tied to the accounting system of the Learned Lumber Company. On the other hand, both the \textit{Adella Shores} and the \textit{R. A. Bingham} were limited in their supporting documents and seemed to put most information into one report. For the \textit{Bingham} there was a captain's cash report but no general summary of all the voyages for a given year was recognized in the account books. The company's balance sheets that were discussed previously may have acted as a form of recapitulations of voyages with the purpose of finding the current net worth of the company rather than current income.

The \textit{Adella Shores} did not have the sophisticated accounting system of the \textit{Betsy Ann}, but as Exhibit 4 above indicated, it was very comprehensive. The supporting documentation available in the library collection showed that the Neffs did have a cash disbursements journal as part of their ships' logs. The \textit{Adella Shores} log has been lost but the one for her sister ship, the \textit{O. J. Hale} (Exhibit 6), revealed that the captain was responsible for the payment of all expenses on the voyage, ranging from groceries to crew wages.

\(^7\)The records of the \textit{Vesuvius} are housed at the Mississippi Department of Archives and History and include a small leather-bound book which acted as a freight register. These records are among the oldest steamboat records in the U.S.
EXHIBIT 6
Partial Log of the O. J. Hale

<table>
<thead>
<tr>
<th>Trip 12 Barge O. J. Hale</th>
<th>Loaded at Terkley &amp; Douglass</th>
</tr>
</thead>
<tbody>
<tr>
<td>From: So Chicago To:</td>
<td>Sept. 12 Left So. Chicago with Adella Shores</td>
</tr>
<tr>
<td></td>
<td>&quot; 13 Arrival Manistee</td>
</tr>
<tr>
<td></td>
<td>&quot; 14 Left Manistee</td>
</tr>
<tr>
<td></td>
<td>&quot; 15 arrives Ludington at Shelters</td>
</tr>
<tr>
<td></td>
<td>&quot; 17 left Ludington [with] Str Adella Shores</td>
</tr>
<tr>
<td></td>
<td>&quot; 18 arrive Chicago</td>
</tr>
<tr>
<td>H. J. Wilson, Master Seaman</td>
<td>Sept. 11 to Sept. 18</td>
</tr>
<tr>
<td>included 8 days at $ 70 per month</td>
<td>Included 8 days at $45 per month</td>
</tr>
<tr>
<td>— $18.64</td>
<td>— $12.00</td>
</tr>
<tr>
<td>J. Johnson, Seaman</td>
<td>G. Claussen, Seaman</td>
</tr>
<tr>
<td>Sept. 11 to Sept. 18</td>
<td>Sept. 11 to Sept. 18</td>
</tr>
<tr>
<td>included 8 days at $45 per month</td>
<td>Included 8 days at 45 per month</td>
</tr>
<tr>
<td>— $12.00</td>
<td>— $12.00</td>
</tr>
<tr>
<td>Wages of Master and Crew</td>
<td>$54.64</td>
</tr>
<tr>
<td>Sept. 11 To William Runsfe - Provisions</td>
<td>$ 2.83</td>
</tr>
<tr>
<td>&quot; &quot; 11 To Petersons Bro. - Groceries</td>
<td>$ 1.46</td>
</tr>
<tr>
<td>&quot; &quot; 15 To A Prairies - Groceries</td>
<td>$ 1.30</td>
</tr>
<tr>
<td>(at Ludington)</td>
<td>$ 5.59</td>
</tr>
<tr>
<td>Whole Amount —</td>
<td>$60.23</td>
</tr>
<tr>
<td>Sept. 19 John Johnson, Seaman 1 day $1.50 per</td>
<td>1.50</td>
</tr>
<tr>
<td>Sept. 19 G. Claussen, Seaman 1 day $1.50 per</td>
<td>1.50</td>
</tr>
<tr>
<td>Whole Amount —</td>
<td>$63.23</td>
</tr>
<tr>
<td>Sept. 18 Payout from Capt. S. O. Neff</td>
<td>By Cash</td>
</tr>
</tbody>
</table>

Finally, the Neffs did compile reports of total income for all their ships and related general office expenses for each month (as shown in Exhibit 7) and for the entire year as well. Though Charles Neff may have used two columns to “balance out” his accounts at the end of the year, this exhibit, along with the previous Neff Voyage Report, shows that he used a very simple accounting system that can be properly classified as single entry.
EXHIBIT 7
General Statement of Samuel Neff and Sons Shipping Company — October 1, 1900

<table>
<thead>
<tr>
<th>1900 General Statement Oct. 1st 1900</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receipts</td>
</tr>
<tr>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Str Adella Shores</td>
</tr>
<tr>
<td>Str. Minnie Kelton</td>
</tr>
<tr>
<td>Str. Edwin S. Tice</td>
</tr>
<tr>
<td>Str. Marion</td>
</tr>
<tr>
<td>Gain</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Gain for September</td>
</tr>
<tr>
<td>General Expenses</td>
</tr>
<tr>
<td>Net Gain</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Management Accounting Principles: A modern textbook defined accounting as “the process of identifying, measuring, classifying and accumulating, summarizing, and communicating information about economic entities that is purely quantitative and is useful to decision makers” [King et al., 1997, p. 688]. The ship-accounting procedures discussed above did identify, measure, and, in a limited way, communicate economic information about the shipping business. However, evidence that shows that the owners used this information to control operations and make informed business decisions is sketchy at best.

The ship-accounting model discussed in this paper did have several devices for control and analysis. First, the captain’s control over all financial and nonfinancial activities during a voyage helped to give a sense of accountability to the absentee owners. Next, the Voyage Report or Trip Report could either be used as the accounting of one business transaction, as foreseen by Bennet [1976] and Crittenden [1850], or be used as a micro-management tool for the control of the company’s overall financial operating activities. For example, the records show that the owners of the ships tracked the profits of the individual trips as well as the combination of all trips. Finally, the nonfinancial measures listed in the records could be used for controlling and monitoring operations.

Of the three ships, the Richard A. Bingham had the best example of a managerial accounting application. This sophistication can be seen in Exhibit 8, where the bookkeeper of A. R.
Bingham Shipping Company determined that it was important to show the cost and income per day of the voyage.

**EXHIBIT 8**
**Summary - Out and Back**

<table>
<thead>
<tr>
<th></th>
<th>Trip #1 71 days</th>
<th>Trip #2 67 days</th>
<th>Trip #3 69 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Earnings</td>
<td>per day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Profit</td>
<td>per day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Expenses</td>
<td>per day</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F. F. Bingham’s share</td>
<td></td>
<td>Including RLM’s shore profit</td>
</tr>
<tr>
<td>Trip #1</td>
<td>24.55</td>
<td>17.29</td>
<td>31.68</td>
</tr>
<tr>
<td>Trip #2</td>
<td>17.29</td>
<td>4.22</td>
<td>9.10</td>
</tr>
<tr>
<td>Trip #3</td>
<td>31.68</td>
<td>4.22</td>
<td>22.58</td>
</tr>
</tbody>
</table>

Mr. Bingham’s need for this type of information is difficult to surmise. One assumption is that he was viewing each voyage as a modern opportunity cost. Was he second-guessing himself about where he could have sent the ship for better profits? Could Bingham have made better profits elsewhere? The answers to these questions are unknowable. In any case, the practice of pegging costs or revenues to a base was widespread at this time. For example, the ICC required railroads to track passenger miles and loaded ton miles [ICC, 1907]. The concept of revenues or costs per passenger mile is still a mainstay for break-even analysis for modern airlines.

The *Adella Shores*, in Exhibit 3 above, shows some evidence of the usage of nonfinancial, managerial accounting measures. The exhibit indicates record keeping for the fuel usage of the ship and the draft of water that the ship would draw in certain situations. The second set of information was important because each harbor was dredged at a different depth. The harbor pilot who guided the ship to the dock area needed to know the draft of the ship when it was empty and fully loaded to eliminate the threat of grounding. The *Betsy Ann* showed no such managerial accounting methodology in its financial statements. However, all of the ships provided sufficient information to determine such information as a unit-cost per mile.

**SUMMARY AND CONCLUSIONS**

As this paper shows, American ship owners developed and used a “standard model” of ship accounting during the 19th century. This system developed before the ICC began standardizing ship accounting in 1910. The ship-accounting model
could be seen in the accounting textbooks and manuals published during the 19th century. It was a system that was very utilitarian in nature and developed according to the needs of an ever-changing shipping industry. Though the ship accounting was widely standardized in procedures and nature, it was not necessarily standardized in presentation and style, with each of the three ships presenting its own version of a *Ship* or *Voyage Report*. Finally, as Table 2 below shows in summation, there was substantial usage of the 19th century ship-accounting model by the three ships reviewed for this study. The *Richard A. Bingham* most closely matched the procedures in the model. The other two ships, the *Adella Shores* and the *Betsy Ann*, showed substantial compliance with the model as well.

### TABLE 2
A Review of Accounting Practices Noted in 19th Century Accounting Books

<table>
<thead>
<tr>
<th>ACCOUNTING PRINCIPLE</th>
<th>ADELLA SHORES</th>
<th>R. A. BINGHAM</th>
<th>BETSY ANN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double-entry accounting</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Purchase of ship as an asset with a ledger account</td>
<td>YES</td>
<td>YES</td>
<td>UNKNOWN</td>
</tr>
<tr>
<td>Shipments and profits accounted for against the purchase price of the ship</td>
<td>YES (O. J. Hale)</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Shipments, both revenues and expenses, are accounted for as individual voyages not in total</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Specific listing of expenses</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Captain made debtor of the voyage transactions</td>
<td>NOT APPLICABLE Captain was owner of ship in this case</td>
<td>YES</td>
<td>NOT APPLICABLE The ship was owned by a corporation.</td>
</tr>
<tr>
<td>The profits are closed to balance not the ship account</td>
<td>UNKNOWN (No balance sheets found in records)</td>
<td>YES</td>
<td>UNKNOWN (No balance sheets found in records)</td>
</tr>
<tr>
<td>Ship's Ledger</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Voyage Report</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Cash Book</td>
<td>YES (O.J. Hale)</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Fuel Book</td>
<td>YES</td>
<td>NOT APPLICABLE No steam engine aboard ship.</td>
<td>UNKNOWN Purchase of fuel mentioned but no amounts given.</td>
</tr>
<tr>
<td>Crew Book</td>
<td>YES</td>
<td>Crew listed with Cash Book</td>
<td>YES</td>
</tr>
</tbody>
</table>

The actual presentation of accounting records by the ships may have been different from that presented in the textbooks. However, the accounting model used by them was the same basic model introduced by Bennet [1976] and Gibson [1827] 75 years earlier. The same model was repeated and improved upon throughout the 19th century by authors such as Stone [1839], Duff [1846], and Soulé [1976]. Though some records of the three ships were incomplete, making a clear picture of the total accounting methodology by each ship impossible, the available records show that there was a “standard” ship-accounting system that met the information needs for the owners of the Adella Shores, Betsy Ann, and Richard A. Bingham at the turn of the 20th century.

REFERENCES

Anonymous (1881), Improved Vessel Book (Cleveland: Brooks and Co.).
Clarke, F.G. (1841), A Synthetic and Inductive System of Book-keeping by Double Entry (Boston: R.B. Mussey).

TABLE 2 (Continued)
A Review of Accounting Practices Noted in 19th Century Accounting Books

<table>
<thead>
<tr>
<th>ACCOUNTING PRINCIPLE</th>
<th>ADELLA SHORES SAMUEL NEFF</th>
<th>R. A. BINGHAM F.F. BINGHAM</th>
<th>BETSY ANN R.F. LEARNED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight Book</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Passage Book</td>
<td>NOT APPLICABLE (Did not take passengers)</td>
<td>NOT APPLICABLE (Did not take passengers)</td>
<td>YES</td>
</tr>
<tr>
<td>Rating of comparison between ship practices and 19th century ship-accounting model — bases on applicable items</td>
<td>Nine out of twelve 75%</td>
<td>Twelve out of twelve 100%</td>
<td>Nine out of twelve 75%</td>
</tr>
</tbody>
</table>


Duff, Peter (1846), *The Western Steamboat Accountant* (Pittsburgh: Anderson & Co.).


Hemmeter's Improved Steamboat Book; Time and Wage Tables Comprising Shipping Articles Cash Account, Disbursement Journal, Towing Journal (1888), (no publisher or copyright noted).


Mersevey, Atwood Bond (1875), *Mersevey's Book-keeping, Double Entry* (Boston: Thomas, Brown & Co.).


Sanborn, Arthur and Berryman, John R. (1898), *Wisconsin Statutes of 1898 Volume I* (Chicago: Callaghan & Co.).


# APPENDIX A  
## A Review of Ship-Accounting Practices Noted in 19th Century Accounting Books:

The Bibliography of Books Used in the Study

<table>
<thead>
<tr>
<th>#</th>
<th>DATE</th>
<th>AUTHOR</th>
<th>TITLES</th>
<th>PLACE</th>
<th>PUBLISHER</th>
<th>PAGE(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1827</td>
<td>Gibson, J.</td>
<td>A New and Improved System of Bookkeeping</td>
<td>Philadelphia</td>
<td>author</td>
<td>7-9</td>
</tr>
<tr>
<td>2</td>
<td>1831</td>
<td>Marsh C. C.</td>
<td>The Science of Double Entry Book-keeping</td>
<td>Baltimore</td>
<td>McDowell</td>
<td>69-70</td>
</tr>
<tr>
<td>3</td>
<td>1836</td>
<td>Foster, B. F.</td>
<td>A Concise Treatise on Commercial Book-keeping</td>
<td>Boston</td>
<td>Perkins</td>
<td>153</td>
</tr>
<tr>
<td>4</td>
<td>1837</td>
<td>Clarke, F. G.</td>
<td>Shipmaster Guide and Commercial Assistant</td>
<td>Boston</td>
<td>Allen &amp; Co.</td>
<td>CB*</td>
</tr>
<tr>
<td>5</td>
<td>1838</td>
<td>Colt J. C.</td>
<td>The Science of Double Entry Book-keeping</td>
<td>Cincinnati</td>
<td>Burgess</td>
<td>41, 70, 99-102</td>
</tr>
<tr>
<td>6</td>
<td>1839</td>
<td>Stone, Ely</td>
<td>The Steamboat Clerk</td>
<td>Cincinnati</td>
<td>Lucas</td>
<td>CB</td>
</tr>
<tr>
<td>7</td>
<td>1841</td>
<td>Clarke F.G.</td>
<td>Book-keeping by Double Entry</td>
<td>Boston</td>
<td>Mussey</td>
<td>144-150</td>
</tr>
<tr>
<td>8</td>
<td>1841</td>
<td>Jones, T.</td>
<td>Principle and Practice of Bookkeeping</td>
<td>New York</td>
<td>Wiley &amp; Putman</td>
<td>29, 31, 40, 51, 52, 62</td>
</tr>
<tr>
<td>9</td>
<td>1842b</td>
<td>Bennet, J.</td>
<td>The American System of Practical Bookkeeping</td>
<td>New York</td>
<td>Collins Brothers</td>
<td>69</td>
</tr>
<tr>
<td>10</td>
<td>1846</td>
<td>Duff, Peter</td>
<td>The Western Steamboat Accountant</td>
<td>Pittsburgh</td>
<td>Anderson</td>
<td>CB</td>
</tr>
<tr>
<td>11</td>
<td>1846</td>
<td>Fleming, J.</td>
<td>The Steamboat Book-keepers Assistant</td>
<td>Pittsburgh</td>
<td>McDonald &amp; Elliot</td>
<td>99-116</td>
</tr>
<tr>
<td>12</td>
<td>1850</td>
<td>Crittenden S.</td>
<td>Book-keeping by Single and Double Entry</td>
<td>Philadelphia</td>
<td>Biddle</td>
<td>147-167</td>
</tr>
<tr>
<td>13</td>
<td>1856</td>
<td>Krepp, F. C.</td>
<td>Statistical Book-keeping</td>
<td>London</td>
<td>Longman</td>
<td>160-166</td>
</tr>
<tr>
<td>14</td>
<td>1881</td>
<td></td>
<td>Improved Vessel Book</td>
<td>Cleveland</td>
<td>Brooks</td>
<td>CB</td>
</tr>
<tr>
<td>15</td>
<td>1888d</td>
<td>Hemmeter</td>
<td>Hemmeter's Steamboat Book</td>
<td>New Orleans</td>
<td>author</td>
<td>340-343</td>
</tr>
<tr>
<td>16</td>
<td>1903c</td>
<td>Soule, George</td>
<td>New Science and Practice of Accounts</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTES:  

- **a** CB = A complete book on ship accounting.  
- **b** This book was originally published in 1817.  
- **c** Soule's book was originally published in the 1880s.  
- **d** Hemmeter's book did not have a copyright or the specific name of the author. Entries in the book at the Great Lakes Historical Society had dates of 1888 so that date was taken for its listing above.
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“DISCOVERING” INDIGENOUS PEOPLES: ACCOUNTING AND THE MACHINERY OF EMPIRE

Abstract: This study examines the historical usage of accounting as a technology of government within the domain of government-indigenous peoples relations in Canada. Our thesis is that accounting was salient within the chain of circumstances that influenced the discovery/identification of indigenous peoples as a governable population. By the 1830s, accounting techniques had come to occupy a central place in the military machinery of empire. When the cost-cutting and reformist sentiments prevalent in Britain during the early 1800s encouraged the reconsideration of the military costs of empire, accounting techniques were one of the methods used in the attempt to interrogate military expenditures. Partially as a result of these interrogations, indigenous peoples came to be identified as a site for cost cutting by British bureaucrats. However, it was at the level of the colonial administration in the Upper and Lower Canadas that the competing demands of “government” encouraged indigenous peoples to be viewed as a potential site for government. And it was once this “discovery” was made that accounting and other techniques were utilized in the attempt to turn indigenous peoples into a governable population. This study contributes to our understanding of accounting by documenting the ways in which techniques such as accounting were central to the military machinery of empire and British imperialism. The study also contributes to our understanding of the historical antecedents that shape current-day usages of accounting as a technology of government within the domain of government-First Nations relations.

Acknowledgments: This manuscript benefited from the comments of colleagues at the University of Calgary and participants at the University of Alberta/Calgary critical accounting gathering. The funding provided by the Canadian Academic Accounting Association and the research assistance of Rita Lavoie, Melissa Luhtanen, and Richard Therrien are gratefully acknowledged.
The sun never sets on the British Empire [source unknown].

INTRODUCTION

The "discoveries" of America by Columbus in 1492, the province of Newfoundland by Cabot in 1497, and the province of Quebec by Cartier in 1534 [Wright, 1993, p. 122] marked the beginning of 250 years of struggle between the imperial powers of France and Britain for control of the territory we now call Canada and its inhabitants. Both France and Britain courted the indigenous peoples as important military allies in the periodic skirmishes that occurred. When the British Empire ultimately prevailed over France in 1760, it subsequently issued a Royal Proclamation in 1763 recognizing the rights of aboriginal peoples to unceded lands and stating that the negotiations between Britain and aboriginal peoples would be on a nation-to-nation basis [Royal Proclamation, 1763]. In the subsequent war of independence with the United States, aboriginal peoples were encouraged to side with Britain in return for parcels of land in Upper Canada [Report on the Affairs of Indians in Canada, 1847, S3, p. 5.1].

In the 250 years since this Royal Proclamation, relations between the remnants of the British Empire and First Nations peoples have certainly changed. Nation-to-nation relations have been replaced by paternal relations in which the government of Canada has attempted, through coercive tutelage [Dyck, 1997], to "govern" [Foucault, 1991] the affairs of First Nations peoples. The recent Royal Commission on Aboriginal Peoples [1996], for example, documented the ways in which the Canadian government has attempted to assimilate and otherwise manage the affairs of indigenous peoples [see particularly Volume 1, Chapters 8-10]. Through the bureaucratic mechanisms of the Department of Indian Affairs and the supporting "Indian Act," the state has attempted to exercise action at a distance over First Nations peoples. Within these attempts at governance, accounting techniques such as funding and taxation relations have been used to encourage/discourage certain behaviors [see also Reform Party, 1997].

In certain ways these shifts in relations parallel more general shifts in the "art of government." Miller and Rose [1990, p. 2] commented that the modern state has come to rely on tech-
nologies of government to align economic, political, and social objectives. Through "apparently humble and mundane mechanisms" such as "techniques of notation, computation and calculation," along with professional expertises [Miller and Rose, 1990, p. 8], government is exercised in the attempt to enable action at a distance — to incite, induce, and seduce populations to behave in certain ways [Foucault, 1984, p. 171]. Since the 19th century, these techniques of rule have supplemented and mostly supplanted more direct forms of sovereign power in core countries [Foucault, 1991, p. 102]. However, as Fanon [1963] stated, within the colonial context force continues to form the backdrop for more subtle forms of governance.

If, as we suggest, Canada's indigenous population has come to be viewed by the state as a population to be "governed," how did the slippage from a nation-to-nation relationship to a paternal relationship occur and how did First Nations peoples come to be targeted as a site for government? Furthermore, when were accounting techniques introduced as a technology of government? In answering these questions, this study suggests that the following circumstances contributed to the "discovery" of indigenous peoples as a population to be governed. By the 1830s, accounting techniques had come to occupy a central place in the military machinery of empire. When the cost-cutting and reformist sentiments prevalent in Britain during the early 1800s encouraged the reconsideration of the military costs of empire, accounting techniques were one of the methods used in the attempt to interrogate military expenditures. Partially as a result of these interrogations, indigenous peoples came to be identified as a site for cost cutting by British bureaucrats. However, it was at the level of the colonial administration in the Upper and Lower Canadas that the competing demands of "government" encouraged indigenous peoples to be viewed as a potential site for government.² It was once this "discovery" was made that accounting and other techniques were utilized in the attempt to turn indigenous peoples into a governable population.

This study contributes to our understanding of accounting in two ways. First, the study documents the ways in which techniques such as accounting were central to the military ma-

² Throughout this study we use the term Canadas as a short-form for the Maritimes, Upper Canada, and Lower Canada. Although similarities undoubtedly exist with the manner in which indigenous peoples were treated in the western territories, our analysis focuses on the aforementioned three regions.
chinery of empire. Authors such as Headrick [1981] have argued that the "hardware of imperialism"—technical innovations such as the Gatling gun, the steamboat, quinine, etc.—contributed to the success of European imperialism. More recently it has been recognized that the "software of imperialism"—professional expertises such as geography, accounting, etc.—also played a role in imperialism [Said, 1993; Bell et al., 1995; Neu, 1997]. The current study contributes to this line of inquiry by documenting the intertwining of accounting within the military machinery of empire.

Second, the study locates the moment and manner in which accounting techniques first came to be focused on Canada's indigenous population. Within the domain of present-day, government-First Nations relations, government policy appears to be directed at encouraging action at a distance. But how did accounting techniques come to penetrate this domain? The analysis provided seeks to "identify the accidents, the minute deviations. . . . that gave birth to those things that continue to exist" [Foucault, 1984, p. 81]. This study contributes to our understanding of the historical antecedents that shape current-day usages of accounting as a technology of government. In doing so, the study illustrates the persistence of accounting as a technology of government within the domain of government-First Nations relations.

GOVERNING THE EMPIRE

Imperialism means thinking about, settling on, controlling land that you do not possess, that is distant, that is lived on and owned by others [Said, 1993, p. 5].

By all accounts, the 19th century was the age of the British Empire [cf Hobson, 1902; Headrick, 1981; Davis and Huttenback, 1986]. The amount of territory controlled by Britain and the population under its tutelage increased sevenfold and twentyfold respectively:

The British Empire alone, already formidable in 1800 with a land area of 1.5 million square miles and a population of twenty million, increased its land area sevenfold and its population twentyfold in the following hundred years [Headrick, 1981, p. 3].

Although other European imperial powers were also expanding during this time period, between 1800 and 1914 the amount of the world's land surface controlled by Europeans increased
from 35 percent to 84 percent [Headrick, 1981, p. 3]. Britain was perhaps the most successful [Barclay, 1976, p. 1].

In attempting to explain the success of imperialism, Headrick [1981, p. 9] suggested that imperialism occurred when both adequate motives and means were present for imperial expansion. Economic motives were assumed to be adequate motives for the expansion of the British Empire [Hobson, 1902, p. 59]; business interests at least benefitted from imperial expansion even if the British taxpayer ended up absorbing the costs of empire [Davis and Huttenback, 1986, p. 317]. Adequate means referred to the existence of technologies that supported imperial expansion and control [Headrick, 1981, 1988].

Headrick [1981] argued that the adoption of new technologies for military purposes provided the means for imperial expansion. For example, the development of steam gunboats aided in the colonization of India [pp. 17-42]; the identification of quinine as a protection against malaria along with steam gunboats assisted in the colonization of Africa [p. 73]; and the development of breech-loading and repeat-firing guns throughout the colonies allowed for the subjugation of indigenous peoples [p. 115]. Additionally, technologies such as steamships, railways, and communication cables furthered both military and economic purposes. These technologies have been referred to as the "hardware of imperialism" [Bell et al., 1995].

Paralleling the development of such hardware was the development of "softer" expertises and disciplines, what Bell et al. [1995, p. 2] referred to as the software of imperialism. Disciplinary knowledges such as geography, medicine, and accounting helped imperial powers come to "know" the territories and inhabitants under their control [Said, 1979, p. 84; Bell et al., 1995, p. 4]. These techniques sorted, sifted, and classified, allowing knowledges of "distant places...to be mobilized [and] brought home to centres of calculation in the form of maps, drawings, readings" [Miller and Rose, 1990, p. 9].

Miller and Rose [1990, p. 8] used the phrase "technologies of government" to denote the roles played by softer and indirect techniques such as accounting in the act of governing at "home and abroad."

We use the term technologies to suggest a particular approach to the analysis of the activity of ruling, one which pays great attention to the actual mechanisms through which authorities of various sorts have sought to shape, normalize and instrumentalize the conduct,
thought, decisions and aspirations of others in order to achieve the objectives they consider desirable.

Miller and Rose [1990, p. 16] specifically mentioned techniques of accounting (i.e.; techniques of notation, computation, and calculation) and discussed the implementation of discounted cash flow analysis in Britain. Although the focus of Miller and Rose's [1990, p. 9] analysis was on the usage of technologies of government within imperial centers, they acknowledged the roles played by these technologies in the colonies. Likewise, Said [1979, p. 40] discussed the role of softer technologies within the processes of colonization, and Neu [1997] examined how accounting techniques in colonial Canada were used to control and contain indigenous peoples. These studies hinted at the ways in which technologies of government were intertwined with the hardware of imperialism. The current study builds on these insights in examining the intertwining of accounting with the military apparatuses of empire.³

MILITARY MACHINERY AND ACCOUNTING CALCULATION

Following the Napoleonic Wars in the early 1800s, economic retrenchment became the principal objective of British government in the attempt to reduce the national debt [Spiers, 1980, p. 74]. Not surprisingly, the military became a primary target for such reduction given that military expenditures were the main items of public expenditure. "Expenditure on the army and ordnance fell from 43,256,260£ in 1815 to 10,699,865£ in 1820; thereafter it slipped below 10£ million, plummeting to just under 8£ million in 1836" [Spiers, 1980, p. 74]. Coinciding with this crisis of expenditure was an increase in anti-military sentiment at home and the emergence of a strong reform sentiment [Sweetman, 1984, pp. 15,17]. Together these sentiments encouraged a "deluge of official action," including bills and the formation of select committees to examine various aspects of public policy and government administration.

Colonial military operations were neither spared from these reform and cost-saving sentiments nor from official government actions. On February 18, 1834, the British House of Commons ordered "that a select Committee be appointed to

³ We treat the notion of governmentality and technologies of government as a "field of investigation" (Miller and Rose, 1995) and theorize these techniques within the broader notion(s) of imperialism/colonialism.
inquire into the Military Establishment and Expenditure in the Colonies and Dependencies of The Crown" [Report, 1834, Vol. 1, p. 1]. The Committee gathered evidence, interviewed witnesses, and presented the first volume of its report to the House of Commons in August 1834. The second volume was completed and presented to the House of Commons in 1835. In these reports, the Committee examined military establishments and expenditures in the colonies of Gibraltar, Malta, the Ionian Islands, the Western Coast of Africa, the Cape of Good Hope, and the Island of Ceylon [in Vol. 1] and New South Wales, Van Diemen's Land, and the North American Provinces [in Vol. 2]. The published report of the Select Committee contains the Select Committee's analysis and recommendations along with minutes of evidence from witnesses and supplementary appendices.4

The Report is an exceptional document produced at a specific juncture in time, partially in response to the demands for administrative reform and increased economy in the military. More specifically, the Report illustrates how, at least at this moment in time, the military machinery of empire relied on techniques such as accounting. In his examination of the administration of the British military during this time period, Sweetman [1984, p. 3] made a similar point when he commented that the "development of improved techniques of accounting . . . created the impetus for efficiency which reflected throughout the [military] administrative system."

The mandate of the Select Committee and the Reports themselves illustrate this intertwining of the hardware and software of empire. The mandate of the Select Committee was to inquire into both the adequacy of military establishments and the cost of these establishments. Throughout the minutes of evidence, witnesses were repeatedly asked to juxtapose and balance these two goals. And in the final Report, the first two recommendations explicitly dealt with the adequacy of force and the cost of maintaining this force:

Resolved, That it is not the Intention of this Committee . . . to relieve the Executive Government from the Duty which constitutionally belongs to it, of providing . . . A

---

4 In subsequent discussions we refer to the published output of the Select Committee as "The Report," which consists of the Select Committee's analysis and recommendations, along with the minutes of evidence and supplementary appendices.
force sufficient for the Security of His Majesty's Possessions abroad [Report, Vol. 1., p. iii, emphases added].

and:

Resolved, That the Committee are of the Opinion, That the strictest Economy should be observed in every branch of Military Expenditure of the Colonies; and that any surplus Revenue that may remain after defraying their Civil Expenses... be applied to the payment of their Military Charges [Report, Vol. 1, p. iii, emphases added].

Thus, the mandate of the Select Committee and the final Report itself set up as mutual goals the maintenance of effective and efficient military force in the colonies [cf. Report, Vol. 2, pp. 26, 44].

It was these notions of efficiency and economy so prevalent in reformist discourses at this time [cf. Sweetman, 1984, p. 13] which provided the rhetorical space for accounting techniques. In attempting to assess the economy of military operations in distant places, the Committee turned not only to eyewitnesses but to accounting techniques and records. Consistent with the comments of Miller and Rose [1990, p. 8], accounting records provided the Select Committee with a short-form representation of distant events. By providing this information to decision makers in the imperial center, accounting helped to render these distant locales "governable."

Throughout the Report is the recognition that accounting is a "useful" technology with regards to governing military operations. The Report contains an extended discussion of the accounting records for individual detachments and whether these records provide appropriate information [Report, Vol. 2, pp. 63-64, 83]. In keeping with the emphasis on economy, questions posed by the lawyer for the Select Committee to a bureaucrat from the military asked whether accounting methods promoted economy:

Q. If those two are able to keep the accounts in the whole of Newfoundland for 276 rank and file, how is it that so large a staff is kept in those parts of Canada where detachments from only 10 to 50 men exist?

A. ... The same description of accounts are necessary for a detachment of 50 men as are necessary for a regiment of 800, provided the regiment of
800 is at one post; but if the regiment is scattered over different parts of the country, then that would impose additional labour upon the commissariat, because each detachment would require the same description of accounts to be rendered in duplicate, and the same description of vouchers [Report, Vol. 2, p. 63].

The notion of economy also motivated discussions regarding the prevention of fraud [Report, Vol. 2, pp. 57, 73] and discussions regarding how often the accounts of different detachments/regiments/commissariats were audited and by whom [p. 65]. From these examples, it appears that accounting techniques were viewed as an integral tool in the government of military operations.

The Report itself not only discussed accounting techniques but used accounting numbers. [Ac]ounting data were interspersed throughout the Report, usually with the effect of making visible certain aspects of military operations. For example, included in the appendices were tables listing the cost to Britain of military operations in different colonies.
FIGURE 1
AN ACCOUNT of the AMOUNT paid by Great Britain for the MILITARY EXPENDITURE

<table>
<thead>
<tr>
<th>MILITARY AND MARITIME STATIONS:</th>
<th>ORDINANCES OF THE ARMY.</th>
<th>ORDNANCE CHARGES.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>£. l. s. d.</td>
<td>£. l. s. d.</td>
</tr>
<tr>
<td>Gibraltar</td>
<td>75,010 17 10</td>
<td>6,031 13 7</td>
</tr>
<tr>
<td>Malta</td>
<td>65,016 14 7</td>
<td>4,484 8 6</td>
</tr>
<tr>
<td>Capo of Good Hope</td>
<td>49,512 8 10</td>
<td>5,003 10 2</td>
</tr>
<tr>
<td>Mauritius</td>
<td>51,512 18 6</td>
<td>3,714 8 6</td>
</tr>
<tr>
<td>Bermuda</td>
<td>49,012 7 5</td>
<td>5,931 13 2</td>
</tr>
<tr>
<td>Heligoland</td>
<td>49,012 5 5</td>
<td>3,003 2 6</td>
</tr>
<tr>
<td>Ionian Islands</td>
<td>70,511 11 3</td>
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<td>94,190 13 6</td>
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<td>Grenada</td>
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<td>Western Australia</td>
<td>1,728 15</td>
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| PENAL SETTLEMENTS:             |                        |                   |
| New South Wales                 | 60,059 14 3           | 977 10 6       |                   |
| Van Diemen’s Land               |                        |                   |                   |
| £. l. s. d.                    | 871,199 18 7          | 72231 8 4       | 157,136 41,678    |

Source: Appendix to Report from Select Committee on Military Expenditure [1835]

Other tables enumerated the number and distribution of effective forces, including a breakdown of officers, noncommissioned officers, and soldiers in Canada [Report, Vol. 2, p. 96], whereas yet other tables summarized the “pay, allowances, emoluments, advantages and salaries” accruing to different military personnel in different locations [Report, Vol. 2, pp. 90-
FIGURE 2
PAY, ALLOWANCES, EMOLUMENTS, ADVANTAGES AND SALARIES

APPOINTMENTS

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<tr>
<th>DESCRIPTION</th>
<th>By whom filled</th>
<th>PAY Used by Parliament</th>
<th>PAY Issued</th>
<th>Other MILITARY PAY</th>
<th>Source</th>
<th>Source from which derived</th>
<th>Honor Quarters, or Allowances for Lodging</th>
<th>Value of Allowances Issued by Commissariat</th>
<th>SALARIES Issued from Colonial Fund</th>
<th>TOTAL (including the Pay Issued)</th>
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<td>AMHERSTOWN</td>
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<tr>
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<td>John Leggett</td>
<td>£73 7 6</td>
<td>£73 7 6</td>
<td>£73 7 6</td>
<td>31</td>
<td>47 7 3</td>
<td>958 5 9</td>
<td></td>
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<td></td>
<td>Wm. Stanwell</td>
<td>173 7 6</td>
<td>173 7 6</td>
<td>173 7 6</td>
<td>31</td>
<td>59 10 3</td>
<td>853 17 8</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1 Judge</td>
<td></td>
<td>21 5 7 3</td>
<td>21 5 7 3</td>
<td>21 5 7 3</td>
<td>34</td>
<td>19 17 6</td>
<td>365 10</td>
<td></td>
<td></td>
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<tr>
<td>1 Labourer</td>
<td></td>
<td>31 14 8</td>
<td>31 14 8</td>
<td>31 14 8</td>
<td>17</td>
<td>6 2 9</td>
<td>73 2 11</td>
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<tr>
<td>FEMALE COMMISSIONERS</td>
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<tr>
<td>Deputy Assistant Commissioner-general</td>
<td>James Wickens</td>
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<td>59 10 3</td>
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<td>Wm. Moorser</td>
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<td>59 10 3</td>
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<td>31 14 8</td>
<td>17</td>
<td>3 2 20</td>
<td>79 12 4</td>
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<tr>
<td>Total Commissariat</td>
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<td>£17,268 5 10</td>
<td>£16,962 13 6</td>
<td>£17,268 5 10</td>
<td>£3,013 3 4</td>
<td>£2,915 3 7</td>
<td>£25,197 - 6</td>
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ABSTRACT OF TOTALS

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<th>Description</th>
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</tr>
<tr>
<td>Military Staff Pay, &amp;c.</td>
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<td>Medical Staff Pay, &amp;c.</td>
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<td>Commissariat</td>
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<td>15,197</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>£61,901</td>
</tr>
</tbody>
</table>

Source: Appendix to Report from Select Committee on Military Expenditure [1835]
This cost information was then referred to in the questioning of witnesses regarding the appropriate military force at a particular location.

In these ways, accounting information represented to the Select Committee the state of affairs in the colonies and thereby provided a starting point for examining issues of military economy. This information also created the illusion that it was possible to compare the military efficiency of disparate locales. For example, a recurrent theme in the questioning of military officials by the Select Committee was the differential cost of military personnel in Nova Scotia vis-à-vis the rest of Canada:

It appears by the Returns that the number of troops in Nova Scotia and in Canada are nearly equal; that there is not a difference of above 200 between the amount of troops in Canada and Nova Scotia: be kind enough to explain to the Committee why there is such a difference between the amount of the expense of the commissariat at Canada and Nova Scotia; and state why it should be three times the amount at the one place as it is at the other, for nearly the same number of troops [Report, Vol. 2, p. 55]?

Although the locales under consideration were quite different, the Committee kept returning to the issue of cost differences, asking the witnesses to explain why two jurisdictions in the same general geographic area [i.e., North America] had such different costs [cf. Report, Vol. 2, pp. 53, 55, 72]. This reliance on accounting data to compare locations is not surprising since, as Miller and Rose [1990, p. 7] commented, programs of government depend on apparently "stable, mobile, combinable and comparable" data because such data render the domain under consideration "susceptible to evaluation, calculation and intervention."

Accounting information not only provided a starting point for comparing the military efficiency of different locales as represented in numbers but also for interrogating the military judgments of the expert witnesses. For example, cost data pertaining to the governor of Newfoundland’s ship provided the starting point for the following line of questioning directed at the former governor of Newfoundland:

Is there not a vessel or yacht for the governor’s use at Newfoundland? Yes, there is . . . What is the amount of expense? The contract for the vessel is £2,300 a year [pp. 32-33] . . . do you consider it absolutely necessary
that a yacht should be kept up, or so large a vessel as at present? I think that it is quite necessary that the vessel should be kept up. The size at present is not more than adequate for the purpose for which she is wanted. She is not wanted exclusively for the governor's use; she is required when necessary to send detachments of troops to different parts of the islands, and she should be able to carry them...and she has been sent to cruise when complaints have been made of the conduct of the French with respect to the fishery and to prevent smuggling and other duties [p. 40].

In this example, accounting data made visible certain aspects of military operations in the Canadian colony. Select Committee members focused their questions on these aspects, asking the military witnesses to justify in military terms the appropriateness of these expenditures.

In another instance, accounting data were used to frame the decision as to whether "regular forces" or the militia should be used to defend Canada. These kinds of questions were directed toward a lieutenant colonel stationed in Nova Scotia:

Q. Is the militia force a popular force in Nova Scotia?
A. I should say it is certainly

Q. How are the officers and men paid when embodied?
A. They are paid by a vote of the House of Assembly...

Q. Is not the pay very inferior to that which they can obtain by labour or by any work as artisans or labourers?
A. The pay is very inferior...

Q. Then taking that into consideration, and taking into consideration the difficulty of finding employment for emigrants...do you think there would be any doubt of finding a sufficient number of men for the militia at as low a rate of pay as British soldiers?
A. Emigrants without money would enlist...

Q. Supposing the experiment were tried...do you, in a military point of view see any objection to employing a proportion of that force, and releasing an equivalent proportion of the regular force of the country?
A. If it were possible to have the militia as perfectly trained as our militia were during the late war, I should see no objection to a certain portion, but I doubt that being practicable [Report, Vol. 2, pp. 28-29].

The above line of questioning illustrates the ways in which the Select Committee forced its military witnesses to justify their military judgments in terms of cost efficiency. The issue of cost as constructed through accounting reports continually framed and set the parameters for military judgments.

As hinted in the above examples, accounting techniques and data provided a "map" of distant military operations, making visible the military configurations of these distant locales. The maps formed by apparently stable, combinable, and comparable accounting data [Miller and Rose, 1990, pp. 7, 9] brought home to the "centers of calculation" information about colonial military arrangements, thereby allowing "local" knowledges to be mobilized by imperial powers [Said, 1979, p. 44]. Accounting numbers helped operationalize the discourse of economy [cf. Power, 1992, p. 478; Neu and Taylor, 1996, p. 451] and thereby created a discursive framework in which military decisions were viewed and ultimately had to be justified. This same data also provided the Select Committee with a starting basis for questioning and interrogating the opinions and judgments of military witnesses. By continually juxtaposing the "truths" as made visible by accounting numbers with the "truths" enunciated by military personnel, the Select Committee sought to understand the state of military operations in these distant colonies.

The foregoing analysis illustrates the ways in which the military machinery of empire at this juncture relied on accounting techniques. Accounting techniques had penetrated the domain of military operations and appeared to function not only as the guidance system for the empire's military machinery but also as a useful technology for interrogating the military costs during this period of economic retrenchment. In the next sections, we analyze how indigenous peoples came to be viewed as a site for cost cutting and, subsequently, as a population to be governed.

A SITE FOR COST CUTTING

Relations between Canada's indigenous peoples and the British military date back to at least the 1600s. In 1670, Charles
II issued a code of instructions to the governors of the Canadian colonies instructing the military to “at no time give any just provocation to any of the said Indians that are at peace with us” [RAIC, 1844, p. a.3]. Throughout the subsequent colonial skirmishes, the British military sought to cultivate indigenous peoples as allies in their battles with the French and in the subsequent War of Independence. Following the capitulation of the French in North America in 1760, Britain formally recognized the rights of indigenous peoples in the Royal Proclamation of 1763:

And whereas it is just and reasonable and essential to our interest and the security of our Colonies, that the several natives or Tribes of Indians, with whom we are connected, and who live under our protection, should not be molested or disturbed in the possession of such part of our dominions and territories, as not having been ceded to us, are reserved to them, or any of them as their hunting grounds.

Not only did the Proclamation recognize the rights of indigenous peoples to unceded land, it stated that negotiations between Britain and indigenous peoples would be on a nation-to-nation basis [Milloy, 1983].

Even after the defeat of France, the British military continued to cultivate indigenous peoples as allies. The annual distribution of “presents” to indigenous peoples was the primary method of maintaining this military support:

From the earliest period of the connexion between the Indians and the British Government it has been customary to distribute annually certain presents, consisting chiefly of clothing and ammunition. . . . The objective at that period was doubtless in the first instance to conciliate the Indians, to ensure their services, and to supply their wants as warriors in the field; and afterwards, in times of peace, to secure their allegiance towards the British Crown, and their good will and peaceful behaviour towards the white settlers [RAIC, 1844, p. 6].

The military connection between indigenous peoples and the British empire was formally recognized in 1816 with the transfer of jurisdiction over Indian affairs to the Commander of the Forces. The Indian Department, as it came to be called, was responsible for the yearly distribution of presents and other matters pertaining to relations between the military and indigenous peoples.
The system of dealing with them was essentially military. For a long time they were under the head of the military department, and were considered and treated as military allies or stipendiaries [RAIC, 1844, p. 6]

Therefore, relations between the military and indigenous peoples were not immune to the cost-cutting sentiments of the times. The cost-cutting sentiments prevalent in Britain encouraged the continual whittling away of the budget for the military [Sweetman, 1984, p. 17] which, in turn, impacted upon military operations in the Canadian provinces. As early as 1822, the Colonial Secretary for the Canadian provinces "contemplated a reduction of the Indian Department, with a view to its ultimate abolition" [RAIC, 1844, p. 7]. In 1829, the Lords of Treasury and the Secretary of State issued an order that "the whole expense of the [Indian] Department should not exceed 20,000£." In 1832, an accounting allocation change was recommended that the charges for the Indian Department be separated from other charges relating to colonial operations in Canada when being presented to Parliament for approval:

Previously to this period the charges for the presents, including those given on account of the annuities payable for lands surrendered, had been yearly granted by the British Parliament in a separate vote, while the salaries and pensions of the officers of the Indian Department had been paid from the military chest. This course being considered irregular, Lord Goderich proposed that for the future, the land-payments or annuities payable for land surrendered, which were confined to Upper Canada, should be charged on the Casual or Territorial Revenue of that Province, while the remaining charge, having been originally incurred with the view of securing the services of Indians in wars, for British, and not exclusively colonial interests, ought, according to His Lordship's view, to be provided by the Imperial Parliament [RAIC, 1844, p. 8].

This shift in policy, which was implemented in 1834, had the effect of making visible the costs of maintaining current relations with indigenous peoples. These cost-cutting sentiments and accounting policy changes would reemerge in the 1835 Select Committee Report, contributing to the Report's ultimate conclusion that the Indian Department should be abolished.

During the inquiry phase of the Select Committee, the Indian Department was subjected to the same scrutiny as other military operations. For example, accounting data regarding
costs provided the starting point for asking a senior military official about the functions of the Indian Department vis-à-vis the commissariat:

Q. It appears by the Returns that there are 40 men at Penetanguishene, and yet there are two deputy commissary-generals at an expense of 273£, and 223£; there is an issuer and a labourer at 79£; making a total of 650£ for the mere commissariat: how can they be employed?

A. Penetanguishene is now the great depot in Upper Canada, from whence presents are issued to the Indians; but that will not justify, in my opinion, keeping permanently there so great a commissariat establishment [Report, Vol. 2, p. 52].

The answer to the above question suggested an overlap in the duties of the two departments. Following up on this suggestion, the Select Committee asked subsequent expert witnesses (e.g., deputy assistant commissary-general located in the Canadas) questions regarding the micro-details of present distribution and whether both departments were necessary:

Q: Have you yourself attended any of those [present] distributions? ... At what place? ... How many Indians attended? ... At what months in the year? ... What were the articles distributed? ... Did you take all those things up with you, or is there any depot kept there? ... On your arrival there, what measures are taken, and how is the distribution regulated? ... Do any observations occur to you, as to a better and cheaper mode of distribution than that which is now used [pp. 73-74]?

and:

Q: Can you give us any information as to the distribution of presents, and how far the duties now performed by the commissariat may be performed by the Indian Department, or the duties of the Indian Department performed by the commissariat?

A: I should think the commissariat would be quite competent to distribute the presents without any Indian Department, which is quite an expensive machine [p. 77].

As the above questions illustrate, once the Indian Department had been identified as a potential site for cost cutting, subsequent questions honed in on the actual duties performed by the
department and the overlap with duties performed by the commissariat.

Given the parameters of the Select Committee's mandate and the direction of the questions, the Report's final conclusion regarding the Indian Department is not surprising:

Resolved: That the Committee are of the opinion from the Evidence taken, and to which they refer, that the Indian Department may be greatly reduced, if not entirely abolished, and they therefore call attention of the House to the same; and also to the expenses of articles annually distributed to the Indians, and whether any arrangement may not be made to dispense with such distribution in future, or to commute the presents for money [Report, Vol. 2, p. iii].

The evidence indicated that the military support provided by indigenous peoples was less needed in the 1830s than in earlier periods. This diminished need, coupled with the discourse of economy and the emphasis throughout the Committee's process on cost cutting, made the final recommendation that the Indian Department be abolished quite predictable.

The preceding analysis proposes that concerns regarding the costs of maintaining Britain's empire indirectly contributed to the identification of indigenous peoples in the Canadas as a site for cost cutting. Specifically, it was the interrogation of military costs in the colonies by the Select Committee that made visible the costs of the Indian Department. However, it is important to note that the identification of the Indian Department as a site for cost cutting by British bureaucrats is not synonymous with indigenous peoples coming to be identified as a site for governance, notwithstanding that it contributed. As the next section proposes, it was colonial administrators with responsibilities for the Canadas who, in attempting to balance the competing demands of "government," encouraged this shift.

**DISCOVERING INDIGENOUS PEOPLES**

The recommendation of the Select Committee that the Indian Department be abolished was, perhaps, the most visible signal to colonial administrators that the "economics" of Canada's indigenous peoples needed to be addressed. However, as we propose, it was the intersection of this funding issue, along with the other "problems of government" confronting colonial administrators, that encouraged the discovery/identification of indigenous peoples as a potential site of government.
At this juncture in time, the Canadas were undergoing significant changes. Following the American Revolution, "thousands of Loyalists poured into the Maritimes, sharply increasing pressures on the Aboriginal land and resource base" [Royal Commission, 1996, p. 6]. Likewise, the early 1800s witnessed the influx of immigrants from Britain, Ireland, and Scotland as the British government and charitable organizations provided generous aid to would-be settlers [Francis et al., 1988, p. 215]. As the Colonial Magazine [1840, p. 305] noted, in Upper Canada "during a period of thirteen years from 1823 to 1836, the increase of population was 200,000 alone, viz. from 150,000 to 350,000." This influx of immigrants radically changed the relative numbers of settlers vis-à-vis indigenous peoples. By 1812, the nonaboriginal population in Upper Canada outnumbered the aboriginal population by 10:1, a ratio that increased further in the subsequent decades [Royal Commission, 1996, p. 6]. In turn, the activities of the settlers created problems of government for colonial administrators.

The increase in immigration led to increased pressure for land. In the Maritimes, "the landless new immigrants pursued agriculture and the export of timber, and although parcels of land had been set aside for the Indian peoples of the region, squatting and other incursions on the Aboriginal land base inevitably occurred" [Royal Commission, 1996, p. 6]. Changing economic activities, from the fur trade to agriculture, led to increasing incompatible pursuits of settlers and indigenous peoples, who were being marginalized from the development of agriculture [Royal Commission, 1996, p. 7]. As wheat farming and timber became the backbone of the Upper Canadian economy during the 1815-1860 period [Francis et al., 1988, p. 223], increased calls came for the discouragement of nomadic lifestyles and the containment of indigenous peoples on specific tracts of land.

As Canada's population and economic activity were expanding rapidly during this period, Britain was becoming increasingly reluctant to bear the costs [cf. Cook and McNaught, 1963, p. 316]. Thus colonial officials were faced with the problem of reconciling three interrelated but potentially conflicting policy objectives. First was the need for greater fiscal responsibility. Second was the related issue of the need to control and contain indigenous peoples and to prevent their interference with settlement activities. Indigenous peoples were, by the terms of the Royal Proclamation, assuming rights of occupancy on land that colonial officials wished to sell to settlers [Royal
Abolishing the Indian Department in the name of cost cutting, however, would be contrary to the increased containment of indigenous peoples. The third objective was in response to reformist sentiments of the day, from a multitude of sources, that emphasized the need to "protect and civilize" indigenous peoples.

Protestant sects which were in the throes of evangelical movements stressed the need to Christianize indigenous peoples [Milloy, 1983, p. 56; Tobias, 1983, p. 40]:

Many of these sects established missions among the Indians, similar to those the Jesuits and other Catholic orders had been carrying on for generations. Such Missions were intended not only to teach the Indian a new religion, but also to encourage him to adopt European or American values [Tobias, 1983, p. 41].

In Britain, the Humanitarians argued for the protection and civilization of the Indian as did romantic writers on both sides of the Atlantic [Tobias, 1983, p. 41]. These sentiments tempered the economic solutions being contemplated by colonial administrators. As we argue below, it was by attempting to reconcile these diverse objectives that indigenous peoples came to be identified as a site for governance.

In responding to the specific recommendations of the Select Committee and these more general problems of government, Lord Glenelg, Secretary of State for the Colonies, stated that the recommendation to eliminate the distribution of presents was inappropriate at the current time (1835):

I feel bound, after much consideration, to express my opinion, that the time has not yet arrived at which it would be possible, consistently with good faith, altogether to discontinue the annual presents to the Indians [RAIC, 1844, p. 9].

The rationale for this opinion was the belief that such a decision would be "impolitic" and that elimination of presents would hinder efforts to "civilize" indigenous peoples (i.e., would be contrary to other government objectives). However, the annual distribution of presents could be modified to help accomplish this goal with the aim of eventually "diminishing their amount, with a view to the ultimate abrogation of the existing custom" [RAIC, 1844, p. 9]. Toward this end, Glenelg directed the governors of the Canadian colonies to examine ways of modifying the type of presents distributed with the aim of encouraging both "civilization" and self-sufficiency:
Looking, however, to the moral and religious improvement of the Indians, and their instruction in the arts of civilized life, as the principal object to be kept in view in our intercourse with these tribes, I am anxious that your enquiries should be specifically directed to the practicability of effecting a commutation of the presents for some object of permanent benefit to the parties now receiving them.

Although Glenelg did not specifically mention the objective of controlling/containing indigenous peoples, the manner in which the distribution of presents was subsequently modified had this effect [Neu, 1997].

The solution to the dilemmas of government proposed by Glenelg articulated a changed view of indigenous peoples. By voicing the sentiment that the type of presents distributed could be manipulated to encourage the "civilization" of indigenous peoples, while at the same time satisfying the demands of settlers that indigenous peoples be contained, Lord Glenelg simultaneously constructed indigenous peoples as a population to be governed and proposed the appropriate technology for government funding relations. Although isolated attempts at governance via the manipulation of presents had occurred prior to this [cf. Neu, 1997, p. 22], Glenelg’s statement defined and fore-shadowed British government policy toward indigenous peoples for the next 20 years.

It is important to note that the proposed solution indirectly addressed the three competing dilemmas of government. The specific costs associated with the Indian Department would be reduced over time and, if successful, indigenous peoples would both be contained and civilized. Furthermore, over the longer term, this strategy of containment would make it easier for colonial officials to buy and resell the land previously occupied by indigenous peoples since this land was no longer central to their subsistence. Thus, the proposed solution partially reconciled the competing demands facing officials at this juncture.

Throughout the chain of events leading to the discovery/identification of indigenous peoples as a potential site for governance, accounting techniques were salient. Accounting techniques were implicated in the Select Committee process and in the ultimate recommendation that the Indian Department be abolished. Glenelg’s solution also proposed the manipulation of funding relations as a method of reconciling the competing policy objectives. As we will see in the next section, accounting techniques also assisted in the translation of this generalized
plan into practice. Throughout this chain of events, accounting techniques and numbers appear to have functioned as an “ideological circle” [Smith, 1990] in that accounting calculations both framed the problem and suggested a potential solution that was consistent with the original framing [cf. Neu and Taylor, 1996, p. 452].

To state that accounting was salient to the process of discovering indigenous peoples as a potential site of governance is neither to suggest that discovery occurred at a single moment in time [cf. Foucault, 1984, p. 80] nor to assert a form of accounting-centrism whereby it is presumed that accounting is unilaterally responsible for this shift. The preceding analysis highlighted the idiosyncratic chain of events and circumstances which encouraged Glenelg’s articulation. Undoubtedly Glenelg’s construction of indigenous peoples as a potentially governable population echoed and harmonized [cf. Lehman and Tinker, 1987, p. 509] with other dominant constructions of the times [cf. Royal Commission, 1996] and thus should be viewed as, in part, an explicit (albeit “official”) statement of the zeitgeist of the times. However this being said, it seems safe to assert that it was during this general juncture in time that indigenous peoples came to be viewed as a potentially governable population. As the preceding analysis documents, accounting was intertwined with this chain of events and, thus, salient to the discovery.

**IMPOSING GOVERNMENTALITY**

While Lord Glenelg’s statements identified indigenous peoples as a potential site for governance, other government bureaucrats soon realized that to govern a population, one had to first “know” that population. Said [1979, p. 36] nicely captured this dialectic between knowledge and colonial government when he noted that:

> Knowledge of subject races ... is what makes their management easy and profitable; knowledge gives power, more power requires more knowledge, and so on in an increasingly profitable dialectic of information and control.

Said’s comments point to the ways in which knowledge of indigenous peoples is a prerequisite for effective and efficient colonial government.

Apparently one of the first steps in obtaining the knowledge necessary for effective government of indigenous peoples was to request a census of indigenous peoples:
In the spring of 1837, the Lords of the Treasury, with the view to enable His Majesty's Government to determine what ulterior arrangements it might be expedient to adopt for the purpose of encouraging the Indians to adopt agricultural pursuits, and acquire habits of settled industry... issued the following set of queries, which were transmitted to the Governor of either Province, and answered in considerable detail [RAIC, 1844, p. 11].

1st. The number of tribes and of Indians resident within the British Territory

2nd. The pursuits of each tribe, with the number of fixed locations occupied by the Indians

3rd. The situation of the locations of the settled parties or of hunting grounds occupied by the other Indians

4th. The extent of lands set apart at the different locations, for the use of the Indians, or of the hunting ranges

5th. The persons employed in the superintendence of the settled Indians, or of the other Tribes, with the designations and salaries, and a summary of the duties they have to perform

6th. The number and description of the Clergy or teachers attached to each tribe or party

7th. Whether the expenses of the tribe or party are defrayed by the Parliamentary grant or from the land payments, out of the Territorial Revenue of the Crown.

As the above questions indicate, this census sought to represent the population of indigenous peoples with an emphasis on how large the population was, where they resided, how they lived, and, perhaps most importantly, how expensive they were to the Crown.

This usage of a census was the first systematic attempt to gather information on indigenous peoples; however, this technique had been used previously in Britain. The period 1801-1831 marked the introduction of the population census in Britain [Lawton, 1978, p. 12]. Cullen [1975, p. 13] argued that the introduction of a population census was intended to provide rhetorical support for Britain's military endeavors:

More accurate information would enable the government to form more effective policies, particularly with regard to the recruitment of the armed forces. The cen-
sus... would show a substantial population increase, thus demonstrating the nation's growing prosperity and allaying domestic discontent.

In the three decades following the introduction of a population census, this technique of government was a favored starting point for addressing issues of the day:

The many environmental, social and economic problems of the nineteenth century — health and disease, housing and sanitation, employment and unemployment, deprivation and poverty — gave rise to an abundance of Royal Commissions and Committees of Enquiry and local government investigations and committee reports. But, in these and related matters, the census of population must often be the starting point of investigation [Lawton, 1978, p. 21].

The census was applied to various populations within society — national crime statistics began to be published in 1810, education statistics in 1818, and the health of factory children in 1816 [Cullen, 1975, pp. 13-16]. In this regard, the transference of this technique to indigenous peoples can be seen as an outgrowth of this trend within Britain itself.

The history of the population census within Britain implies that the notion of a census was a popular solution to "problems of government" at this juncture. Starting from its deployment as a technique to justify the viability of the military, the census came to be viewed as a prerequisite for other government action. In terms of indigenous peoples, this was also the case. The 1844 Royal Commission Report on the Affairs of the Indians in Canada contains the results of the 1837 census of indigenous peoples and frames the recommendations in light of the census results. This [ac]counting of indigenous peoples, we propose, can be read as an attempt to produce a map of the indigenous population, to generate a certain type of knowledge which allowed Britain to govern indigenous peoples effectively [Said, 1979, p. 36]. Although this form of accounting differs from the type of accounts generated by commercial enterprises, the function is similar to gather and represent information at a point-in-time in order to exercise control (whether we refer to this control as governmentality or stewardship). Interestingly, the usage of techniques of census on indigenous peoples presupposes a subject population and assumes a paternal relationship whereby the colonial government has the right to attempt to govern indigenous peoples. As mentioned previously, this repre-
sents a change from the nation-to-nation relationship enunciated in the 1763 Royal Proclamation.

While the transfer of the [ac]ounting techniques of census to indigenous peoples can be traced to techniques of government used in Britain at this juncture, we are unsure whether the suggestion by Lord Glenelg to use funding relations as a technology of government was a transfer of an existing technique or a "made in the colonies" solution. Issues of lineage aside, following Lord Glenelg's letter to the governors in 1835, accounting techniques of governance were applied to the indigenous population.

The areas of agriculture and education were the initial sites in which the Crown attempted to change behavior via the manipulation of presents. For example, in an 1836 letter to the governors of the Canadian provinces, Lord Glenelg [1836, p. 433] recommended shifting a portion of the funds spent on presents to the area of education:

[His Majesty's Government] are prepared, should you think such a measure practicable, and if the consent of the Indians can be obtained to it, to sanction the application of at least a portion of the sums now expended in the purchase of stores and presents, to the erection of school houses, the purchase of elementary books, and the payment of resident schoolmasters, for the benefit of Indian tribes.

Likewise in a subsequent letter, Lord Glenelg suggested that with the view of encouraging indigenous peoples to abandon a wandering lifestyle that agricultural implements be substituted for other presents "giving [indigenous peoples] agricultural implements, but no other Description of Presents" [Glenelg, 1838, p. 235]. The policy direction provided by Glenelg was consistent with the interests of settlers that indigenous peoples be "encouraged" to abandon traditional pursuits which conflicted with settlement.

These policies regarding the manipulation of presents were reiterated and reaffirmed in the 1844 Report on the Affairs of the Indians in Canada. This Report recommended major changes to the Indian Department and an increased emphasis on agriculture and education, with the manipulation of presents being the primary method of encouraging these changes. Subsequent to this Report, the annual issue of gunpowder was withheld:

On the 30th of January, 1849, the Earl of Elgin re-
ported the arrangement made by Lord Metcalf in 1845, with most of the settled Tribes, where by the annual issue of gunpowder was withheld on the understanding that the sum saved would be applied to promoting education among them [Report of the Special Commissioners, 1858, p. 2].

Such manipulations continued until 1858 when the British Parliament recommended that the annual issue of presents be discontinued. These examples strongly suggest that presents distributed to indigenous peoples were used as a specific technology of government in an attempt to encourage certain types of behavior, notably the pursuit of a “settled” and “civilized” lifestyle. Interestingly, Foucault’s discussion of governmentality seems to envision this very type of manipulation in that he states that it is often “customs” (i.e., a wandering lifestyle) that techniques of government are directed at changing. “The things with which government is to be concerned with are in fact men, but men in their relation to that other kind of thing, customs, habits, ways of acting and thinking” [Foucault, 1991, p. 93]. It was through the usage of accounting techniques of governance that Britain attempted to satisfy the competing demands for the minimization of costs, the civilization and protection of indigenous peoples, and their control and containment on segregated reserves.

Although the preceding analysis has focused on the use of accounting techniques to accomplish governmentality, other techniques of government were also deployed. For example, the appointment of Indian agents responsible for the affairs of specific tribes was used to implement government policy, helping to accomplish the goals of containment and civilization [Milloy, 1983, pp. 59-60]. Likewise the establishment of the first residential schools during the 1840s, with their explicit objectives of “weaning [indigenous peoples] from the habits and feelings of their ancestors...” [Grant, 1996, p. 59] and the increasing involvement of missionaries in the administration of the affairs of indigenous peoples [cf. York and Pindera, 1992, pp. 88-89], complemented the aforementioned accounting techniques in achieving governmentality. Consistent with Miller and Rose’s [1990, p. 97] observation that governmentality is accomplished via heterogenous technologies operating in heterogenous sites, governmentality was accomplished in the case of indigenous peoples by a variety of mechanisms, including accounting, operating in different locales.
CONCLUSION

Explanations of the success of British imperialism during the 1800s often emphasize the importance of technology [cf. Headrick, 1981, 1988], political values [cf. Lloyd, 1996] or economic motivations [cf. Hobson, 1902]. The current study supplements these explanations by documenting the role(s) played by accounting techniques within the military machinery of empire. Our thesis is that accounting techniques, at least in the early 1800s, were firmly embedded within the military machinery of empire and served to frame the military decisions of the day. Drawing upon the theoretical work of Foucault [1991], Miller and Rose [1990, 1995], Said [1979, 1993], and others, we theorize accounting as a technology of government that helped to facilitate action at a distance. More specifically, we propose that accounting contributed to British imperialism by returning to the centers of calculation information that rendered distant territories and their occupants governable.

In the context of Canada's indigenous peoples, the current study sought to analyze the moment(s) at which indigenous peoples came to be viewed as a governable population rather than as a distinct nation and when/how accounting techniques came to penetrate this domain. Our analysis suggested that the competing pressures of financial rationalization in the Canadas, the demands from settlers that indigenous peoples be contained, and reformist discourses emphasizing the importance of civilizing indigenous peoples encouraged the identification of indigenous peoples as a governable population. In response to these pressures, Lord Glenelg proposed the manipulation of funding relations (i.e., the annual distribution of presents) as a method of accomplishing these disparate objectives. This public statement by the Secretary of the Colonies simultaneously constructed indigenous peoples as a governable population and proposed the technology of government that would encourage the desired behavior. Subsequent to this pronouncement, the [ac]counting techniques of census were transferred from the imperial center in the attempt to come to “know” indigenous peoples, and funding relations were systematically manipulated in the attempt to satisfy the competing policy objectives. Thus, as a consequence of this chain of events, we see in the 1830-1858 period the slippage from a nation-to-nation relationship between Britain and indigenous peoples to a paternal relationship. Intertwined with this slippage was the identification/construction of indigenous peoples.
as a governable population, and the penetration of this domain by accounting (and other techniques) functioning as technologies of government.

The study resonates with the current day in that it makes visible the lineage of paternal views regarding indigenous peoples and the persistence of accounting technologies of governance within this domain. However, while the current study is suggestive of parallels between the 1830s and the 1990s, more research is needed to understand how accounting techniques of governance have changed/evolved over this time period. Foucault [1991] and Said [1979], for example, implied that techniques of regulation/government may become more precise over time as the knowledge gained from previous attempts helps to refine the technologies. Yet Miller and Rose [1990, p. 10] provided the caution that “whilst ‘governmentality’ is eternally optimistic, ‘government’ is a congenitally failing operation.” Consequently, more research is needed to understand how the accounting technologies of government directed at indigenous peoples have changed since the 1830s, whether these technologies have become more precise in terms of the effects they are intended to induce, and the manner in which these technologies are resisted by those targeted by them.

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HISTORIOGRAPHY, CAUSALITY, AND POSITIONING: AN UNSYSTEMATIC VIEW OF ACCOUNTING HISTORY

Abstract: The article reviews recent developments in accounting historiography in relation to the underlying positioning of the participants. It finds that accounting history has located itself within the tradition of social science, which subsumes events into generalizations and generalizations into theory. It reviews the efficacy of causal theories of human behavior and proposes an alternative non-theoretical approach.

INTRODUCTION

In a thought-provoking, short article, Slocum [1995, p. 21] suggested that the phenomenon of history repeating itself occurs when the need for survival, coupled to the desire to take the easiest course, determines the path that is chosen. The implication is that there is a pattern to human activity, and that it is possible to theorize causal relationships. This chain of reasoning underlies the various accounting historiographical paradigms which seek to explain accounting activities and accounting change in terms of the pursuit of wealth through rational decision making (economic rationalist), the subjection of the forces of production through capitalism (Marxist), or the exercise of power through knowledge and symbolic representation (Foucauldian). The resultant causal structures are not the same. Authors maintain that the economic-rationalist paradigm tends towards a mechanistic view of cause and effect, whereas the other schools are more dynamic in that they focus on the processes of change by which new situations and practices are
brought into being [Hopwood, 1981, p. 294; Mouck, 1995, pp. 74-78]. The Foucauldian emphasis on discontinuity [Fleischman and Tyson, 1997, pp. 92-97], that it is anachronistic to interpret the past as an extension of the present, in no way prevents the “dynamics that come to drive the power-knowledge interaction” [Hoskin et al., 1997, p. 3] from being theorized. Rather, the question becomes, when did conditions exist for them to operate? When did the modern world begin [Hoskin et al., 1997, p. 2]? These three models are merely illustrative rather than representative of the full genre of theoretical studies, which is extremely diverse. Young [1995], for example, adopted the theoretical concept of “regulatory space,” Walker [1995] that of “critical-conflict,” and Walker and Shackleton [1995] “British corporatism” to explain historical events within a single volume of *Accounting, Organizations and Society*.

The purpose of this article is to highlight the limitations of a theoretical approach to accounting history. It is therefore unashamedly reactionary, as theoretical history has gained ground in recent years [Fleischman and Tyson, 1997, p. 97]. Undoubtedly, the discipline of accounting history has been stimulated as a result, although some “traditional” accounting historians have felt that they are being “goaded and ridiculed” by the “energetic proponents of the new” [Funnell, 1998, p. 142]. The article commences by reviewing trends in accounting historiography over the last 25 years, before moving on to consider the nature and limitations of causal theories of accounting behavior. It argues that (1) the terminology that has been applied to research directions in accounting history is confused; that (2) accounting historiography has become more theoretical under the stimulus of “critical” scholarship; that (3) causal theories are undermined by the volatile elements of accident and personality which are not susceptible to prediction; and that (4) the present emphasis on theorizing causation is a reflection of the accounting discipline’s own search for identity, coupled to the anthropic fallacy of historical reasoning, which places the historian at the center of the historical universe and uses the past to justify his/her view of the present.

**HISTORIOGRAPHY**

In recent years, accounting history has moved closer to the center of accounting research, and the nature and aims of the discipline have come under increasing scrutiny. Table 1 illustrates the range of classifications that have been applied to
accounting history over the last 25 years, as scholars have attempted to rationalize accounting history's place in accounting research. These classifications and their linkages are useful because they illumine the underlying historiographical trends.

**TABLE 1**

**Chronological Categorization of Accounting History**

<table>
<thead>
<tr>
<th>Author</th>
<th>Classifications</th>
<th>Linkages</th>
<th>Author</th>
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<tbody>
<tr>
<td>1970 AAA</td>
<td>Intellectual, Utilitarian</td>
<td></td>
<td>1987 Hopwood</td>
<td>Technical-rationalist</td>
<td>Progressive improvement</td>
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<td>1974 Goldberg</td>
<td>Accounting practice Accounting thought</td>
<td></td>
<td></td>
<td>Critical</td>
<td>Complex dynamics</td>
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<tr>
<td>1975 Johnson</td>
<td>Economic history Accounting history</td>
<td></td>
<td>1989 Napier</td>
<td>Traditional</td>
<td>Discovers the past;</td>
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<tr>
<td></td>
<td>Growth of organizations Evolution of accounting procedures</td>
<td></td>
<td></td>
<td></td>
<td>Evolutionary</td>
</tr>
<tr>
<td>1977 Baladouni</td>
<td>Cultural, Technological, Social</td>
<td></td>
<td></td>
<td>New positivism</td>
<td>Tests predictions</td>
</tr>
<tr>
<td>1981 Yamey</td>
<td>Descriptive Interpretive</td>
<td>Situation specific Wider setting</td>
<td>1990 Previts, Parker, &amp; Coffman</td>
<td>Narrative, Interpretational</td>
<td></td>
</tr>
<tr>
<td>1981 Parker</td>
<td>Evolutionary, Revolutionary</td>
<td>Social, economic, and institutional context; Theoretical Development of technical practice</td>
<td>1990 Flesher &amp; Samson</td>
<td>Descriptive, Interpretive, Predictive</td>
<td></td>
</tr>
<tr>
<td>1981 Hopwood</td>
<td>Processes and consequences of change</td>
<td>Noncontextual; Atheoretical</td>
<td>1991 Miller, Hopper, &amp; Laughlin</td>
<td>New</td>
<td>Inter-disciplinary</td>
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<td></td>
<td>Disciplinary</td>
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<tr>
<td>1986 Johnson</td>
<td>Littleton school New</td>
<td>Technical; Mechanistic; Evolutionary</td>
<td></td>
<td>Traditional Economic rationalist; Hierarchical documentary model</td>
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<tr>
<td></td>
<td></td>
<td>Development of technical practice</td>
<td>1993 Morino &amp; Mayper</td>
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</table>
Different layers of meaning can be deduced from the table. First, as new research methodologies have manifested themselves, the exponents of the "new" have been keen to draw a distinction between their brand of history and what has gone before, the "traditional." However, the nature of this dichotomy is confused, which the table’s linkages clearly show. For instance, the Foucauldian and Marxist worldviews have been
characterized as "critical" because they try to render the familiar economic-rationalist view unfamiliar, by focusing on the hidden, unarticulated aspects of the accounting discipline [Merino and Mayper, 1993, pp. 238-239]. Thus, the economic rationalist viewpoint has been said to constitute "traditional" history, although the term also applies to studies which are descriptive in nature rather than interpretive [Fleischman et al., 1996b, p. 66], and which chart the technical development of accounting practice without contextualizing it [Hopwood, 1981, p. 295]. In this scheme, the discovery of technical data by "traditionalists" is still regarded as useful, albeit at the least publishable level of historical activity [Flesher and Samson, 1990, p. 3], because it provides fodder for the "contextualisers" to theorize [Napier, 1989, p. 250]. But, this implies a lack of interest on the part of traditional historians in causal relationships, which is quite inconsistent with the notion that they are also economic rationalists. Carnegie and Napier [1996, p. 14] acknowledged this situation by linking critical and economic-rationalist studies together as both encouraging particular modes of explanation. Furthermore, "traditional" accounting histories have also been critiqued as those which follow an evolutionary or Darwinian model of accounting improvement from a less perfect past to a more perfect present [Hopwood, 1987, pp. 209-210; Napier, 1989, p. 244], a view also known as the "Whig interpretation of history" [Butterfield, 1973, p. 9], implying a causal model based on the natural selection of accounting techniques in which the "strongest" survive. It follows that there is some confusion in the terms that have been applied to accounting history over the last 25 years, which have multiplied as researchers have attempted to resolve disagreements over research aims and to rationalize the place of history in mainstream accounting research.

Second, Table 1 illustrates the extent to which research directions in accounting history have become an issue in the 1990s. This paradigmatic diversity is both a reflection of its increasing maturity as a discipline and the continuing rise in numbers of new entrants, since 1980, who come from different backgrounds, replete with their own baggage and agendas. Miller et al. [1991, p. 396] cited anthropology, economics, history of science, organization theory, and sociology as providing examples. Parker's [1980, pp. 26-28; 1988, pp. 76-81] accounting history bibliographies give some indication of scale. In the nine years to 1977, he cited about 170 authors, compared to about 510 in the seven years to 1987. Cooper and Puxty [1996,
p. 306] referred to the “proliferation” in the number of histories, historians, and ideological frameworks. In any discipline, new knowledge is largely incremental to the knowledge base and beliefs of the researcher. Looking at causation, interpreting the evidence will usually take place against a model that is dependent upon the researcher’s objectives and background. Diversity in accounting history is therefore inevitable, and it is fruitless for individual schools to claim preeminence for their own point-of-view. Moreover, the large cluster of articles in the 1990s reflects the increased opportunities for publication arising through diversity. From a pragmatic viewpoint, it is not in the interests of accounting academics to close down particular lines of inquiry. Indeed, conflicting worldviews allow accounting historians to examine or reexamine issues from different angles and to draw contrasts, either in partnership or in opposition [e.g., Tyson, 1992; Fleischman et al., 1995; Hoskin and Macve, 1996].

Third, research directions in accounting history, as reflected by Table 1, are not divorced from trends in accounting theory. The idea of accounting progressing through time towards an ideal state is consistent with a normative-deductive approach to accounting theory. If Mouck [1995, pp. 55, 60] is correct that this type of study peaked in the 1960s and early 1970s as a result of the “unprecedented concern” in U.S. business schools at the time over the lack of scientific theory in management education, its subsequent decline has coincided with the overt rejection of the Darwinian model by most accounting historians. In 1975, Johnson [1975, p. 449] wrote about the “evolution of accounting procedures in large corporations” as an impetus to national economic growth, whereas by 1986, he was referring to the possibilities offered by the “new” accounting history that was by then challenging the evolutionary view [Johnson, 1986, pp. 74-75]. In 1981, Parker [p. 281] defended the notion of evolution on the grounds that “no accounting historian has discerned revolutions in accounting practice,” but all subsequent entries in Table 1 tend to regard that idea as passé. This is not to say that the evolutionary model in accounting history is as defunct as the table suggests since the Foucauldian focus on discontinuities in management accounting history has been paralleled by a search for continuities between the modern world and the past by their critics [e.g.; Edwards et al., 1995, pp. 34-35]. Moreover, discontinuity and evolution need not preclude each other. In a true Darwinian sense, evolution does not imply progressive improvement,
but the adaptation of species to suit their environment best. There will be extinctions and new starts along the way as the environment changes, as well as continuity and development. The main evolutionary question in accounting, then, concerns the way accounting has interacted with the environment (i.e.; social, political, economic, calculable, etc. contexts) in which it has operated at particular points in time and space, which is relevant to Marxists, economic rationalists, and Foucauldians alike. Has the interaction between accounting and its contexts been dysfunctional, congruous, or synergetic? Evidence of congruity/synergy would support the idea that accounting evolves. An example might be the growth of power systems in U.S. society from around 1800 in response to “the rise and rise of sustained cognitive growth” as the use of writing, examination, and numerical grading spread [Hoskin et al., 1997, p. 3].

Returning to the theme that developments in accounting theory and historiography are linked, the best example is shown by the post-1980 references in Table 1 to “critical” accounting history, which reflect the current vogue in “critical” or social-based accounting research. As Funnell [1996, p. 38] observed:

Central to much of the critical accounting research which has sought to question the legitimacy of existing institutions, distributions of power and the role of accounting in sustaining and perpetuating dominant capitalist forms of discourse has been an emphasis on history.

The number of references to critical studies in the table is a measure of the impetus that critical accounting research has given to accounting history in recent years.

Finally, Table 1 shows that the debate over research aims has moved from looking at what we do and why we do it, to what we ought to be doing. Accounting historiography has become more schematic in the process. The early articles cited in the table followed in the wake of the American Accounting Association’s (AAA) [1970] report on accounting history by defining the scope and utility of the discipline. Goldberg [1974] developed the AAA Committee’s arguments concerning the benefits to be derived from accounting history [pp. 406-408] and suggested the interrelationship between accounting practice and thought as a worthwhile field of study [pp. 409-410]. Johnson [1975, p. 444] supported the AAA’s contention that accounting history would lead to a better understanding of economic history, focusing on the contribution that accountants
could make by studying the development of organizational methods in large corporations. By 1977, however, Baladouni [1977, pp. 59-67] was developing more sophisticated cultural, technological, and social frameworks, which he hoped would provide a “methodological backbone” to facilitate empirical and theoretical research in accounting history. The range of classifications in the table shows that from then on methodological issues have assumed a greater significance as the hitherto dominant “rule of economics” [Funnell, 1996, p. 39] has come under increasing challenge from social theorists. The economists have responded by defending their position. By questioning the nature of accounting history under the stimulus of “critical” scholarship, there has been a tendency to theorize it, which has culminated in the paradigmization of cause and effect along fairly rigid lines of demarcation.

Most of the authors cited in Table 1 are active historians at a field-level, and there is no reason to suppose that the fieldwork of authors in general has not been affected either offensively or defensively by these historiographical trends. Witness the call in Fleischman et al. [1996a, p. 332] for an eclecticism that has been backed by collaborative ventures or Tyson's [1998, p. 224] rebuttal of Foucauldian terminology. Proof, however, would entail reviewing all the accounting history studies now being published over a series of years. Anderson [1998] cited some 280 for 1995-1996 alone. It would be insufficient just to review the articles appearing in the mainstream accounting history journals, as these are now in a minority. Out of the total of 280, only about 60 were published in Accounting Historians Journal; Accounting, Business and Financial History; and Accounting History. Furthermore, to concentrate on a narrow band of articles would be especially futile if journal titles act as "Baudrillardian signs," possessing value and meaning in themselves [Cooper and Puxty, 1996, p. 292], and by implication, tend to attract articles of the same type.

CAUSALITY

Whitley [1988] examined the role of scientific models in accounting theory and drew a distinction between those derived from natural sciences and those based on the social, both of which he found present. The essence of a good, natural-scientific theory is that it both accurately describes a large class of observations on the basis of a model containing only a few arbitrary elements, and that it makes definite predictions about
the results of future observations [Hawking, 1988, p. 9]. This type of model has been used by positivist accounting researchers to explain and predict the workings of financial markets, and has been extended into the behavioral field by "positive accounting theory" [Whitley, 1988, pp. 632-634]. Essentially economic-based, such studies derive from the same natural-scientific root that underpinned the "normative apriorist" movement of the 1960s and early 1970s [Whitley, 1986, pp. 171-172; Mouck, 1995, p. 64]. Social models, on the other hand, are more value-laden because of their need for descriptions and terms that have "positive or negative connotations, both in the scientists' own culture and in the one being analyzed," and are of more limited applicability because of variations in cultural norms [Whitley, 1988, pp. 637-638]. However, this difference has not prevented social researchers from sharing the natural scientist's aim of using events to establish causal relations that can be generalized [McClelland, 1975, p. 86; Fleischman et al., 1996b, p. 63]. Haddock [1980, p. 150] described how "the claim that history should approximate a social science adhering closely to the methods of the natural sciences" first "attained the status of an orthodoxy" in the mid-19th century, and how it has continued to be "a central and contentious issue." According to Stone [1981], "the climatic years of the conversion of historians to an interest in the social sciences" were the late 1960s [p. 15], although he warned of the "growing mood of skepticism abroad about the value to historians of much of the newest and most extreme social science methodology" [p. 43]. The increased theoretical bent of accounting history since the 1980s grounds it firmly in that tradition.

The focus of the social scientist is on the present [Fleischman et al., 1996b, p. 63]. Knowledge of the past is not relevant for its own sake, but because it helps to illuminate the present and feeds into current issues. Such an opinion would be shared by many general historians [Evans, 1997, p. 61], but with accounting historians there is also the need to justify oneself in the accounting discipline where historical perspectives do not have a mature tradition. Indeed, the need for validity could explain the current emphasis on theoretical studies, as the term "atheoretical" has tended to become derisory in accounting history literature. Arguably, the postmodernist view that the past is essentially unknowable will never gain serious ground in accounting history, as this would render the discipline redundant to accounting researchers. For the same reason, historical studies which view the past as an object in itself...
tend to be dismissed as "antiquarianism." Accounting practice is regarded as a dynamic process, devised in historical situations. A study of the practice in relation to the situations enables one to question the manner in which the circumstances have changed and to assess the implications for modern practice [Whitley, 1988, p. 640; Edwards, 1989, p. 5]. Proponents of this view argue that we can learn from the past and see history as being capable of supporting contemporary research into policy making and standard setting, for example [Previts et al., 1990, p. 3].

Some accounting historians go one step further and would like to be able to predict the future. Evans [1997, pp. 53-62] traced this idea back to the 1860s, but expressed severe misgivings about history's predictive ability. Not many accounting historians have attempted to predict the future [Parker, 1981, p. 284], but various statements of intent by journal editors have suggested it as a desirable goal. Flesher and Samson [1990, p. 3] wrote that those studies which offered "the possibility for predicting or influencing future events" would be the ones that stood the best chances of publication. Whilst stopping short of advocating "predictions," Carnegie [1996, p. 5] did refer to the "considerable potential" that critical and interpretive research has for providing "insights into accounting's present and future." The stated objectives of papers that are published in Accounting, Business and Financial History include helping to predict possible future developments. Are such predictions possible? Goldberg [1974, pp. 408-409] and Baxter [1981, p. 5] argued they are not. Other writers have sounded a cautionary note [Edwards, 1989, p. 6]. Perhaps the answer depends on whether one takes a typical historical or typical social-scientific perspective, the latter being the more deterministic of the two [Mills, 1993, p. 802; Fleischman et al., 1996b, p. 64]. Theoretical histories derive useful insights by making predictions about past relationships, and it will be interesting to see whether the current trend towards theoretical history results in more predictions of future ones.

One of the main difficulties of causal theories of human behavior is that they do not acknowledge freewill or personality as a potential source of forecast error. This charge has been countered on the grounds that causal theories predict only the choices dictated by human dispositions rather than the resultant outcomes [McClelland, 1975, p. 71]. The distinction is a fine one, however, as such theories tend to assume a reduction in the number of acceptable choices, given similar dispositions.
exposed to similar stimuli [McClelland, 1975, p. 86]. Thus, "counterfactual" analysis changes the stimuli to predict what would have happened if historical circumstances had been different [McCloskey, 1987, p. 16]. Accident is another source of forecast error not recognized by historical predictions. Evans [1997, pp. 129-138] identified accident as a key factor in "the study of causes." Wars provide many examples where accident and personality have rendered the course of events unpredictable. For instance, the Battle of Britain was lost by Germany as a result of the accidental bombing of civilians in London on August 23, 1940, which prompted retaliatory raids on Berlin, and diverted the war away from British airfields towards British cities [Shirer, 1964, pp. 931-934]. Accounting itself is not immune from these unpredictable catalysts, witness the lasting impact of Nazi economic planning on French financial reporting [Standish, 1990, p. 350]. Walton [1995, p. 8] commented on the important part that wars have played in generating accounting change, and Nobes and Parker [1995, pp. 19-20] listed accident as one of seven key determinants of the nature of accounting in any particular country. What would have been the effects on future accounting practice had the Battle of Britain resulted in the German occupation of Great Britain? What shape would accounting have taken had not the Moslem advance into western Europe been halted at Tours in 732, given the importance of both Frankish rulers and the Roman Christian Church to its subsequent development [Oldroyd, 1997, pp. 18-22]? What effect did the unexpected collapse of Polly Peck International plc have on the regulation of U.K. financial reporting in the 1990s? Arguably, it led to more restrictive practice by U.K. standard setters in an attempt to restore confidence in the accounting profession [Oldroyd, 1994, p. 37]. What has been the influence of particular individuals on the development of a new profession/theoretical discipline? The current interest in biographical studies in accounting history literature suggests that it has been great. The "crucial discontinuity" in Hoskin and Macve's [1988, p. 46] Foucauldian thesis concerning the development of modern "managerialism" in the U.S. depended on the meticulous nature of Sylvanus Thayer.

Accident and personality impact primarily on events rather than systems. Accounting has been described as a social system [Lee, 1990, p. 75]. Such a view underplays the significance of particular happenings. Eventually one ends up at the same place through deterministic forces which govern the interaction of humanity with itself and the environment. Hoskin and
Macve [1988, p. 66] spoke of the demise of the "memorable man" under the welling-up of disciplinary knowledge within society. However, any systematic view of the world of accounting must take inertia into account. Lee [1990, p. 97] described inertia as "the self-referential and recursive nature of accounting," an important characteristic that can be overcome by events which are not always susceptible to prediction. Accounting inertia is both the reluctance to adopt new practices and ideas and the corresponding hesitancy to discard old ones. The inclination to follow what has been done before imbues past practice with its own momentum. Fligstein [1990, p. 9] observed the same phenomenon in relation to business organizations. He found that organizations tend not to change until they are faced with a crisis. Arguably, inertia in accounting has increased as accounting has become embedded in the institutional, legal, and regulatory framework. Examples of inertia might include the delay in the adoption of double-entry bookkeeping in industrial accounting or the persistence of Victorian corporate style reporting to shareholders. Accounting legislation drafted by the European Community has displayed a tendency to adapt old rules. The same has been apparent in Eastern Europe following the demise of the U.S.S.R [Walton, 1995, p. 3]. In short, there are many models that are possible to explain accounting activities beyond those that have been articulated already. By focusing on the resistors/catalysts of change, inertia could provide as complete a model as any other except that predictions would be tenable only in the indeterminate short-term where the level of forecast error is reduced. Accounting history would assume a central importance as a catalyst of change through its role in questioning the appropriateness today of "time-honoured concepts and ideas" [Edwards, 1989, p. 6].

POSITIONING

Causal theories of accounting behavior suffer from the anthropic fallacy of historical reasoning, which uses the past to justify the historian's view of the present, thereby placing him/her at the center of the historical universe. The anthropic principle in physics states that we see the universe the way it is because if it were different, we would not be here to see it [Hawking, 1988, p. 183]. At one level, any theory of the universe must include the evidence of humanity's existence. At another, humanity is placed at the center of the universe because the
nature of the cosmos is contingent on our ability to witness it. There may be other universes or regions of the same universe obeying different laws, but if there are no observable consequences, they can afford to be ignored [Hawking, 1988, p. 125]. From an historical perspective, our understanding of the past is contingent on our location in the present, and history is useful to us because it helps identify and explain who we are. The tendency to place ourselves at the center of history accounts for the disparate nature of the historical universe. Children are taught their own history at school. The recent debate over the establishment of a national history curriculum in British schools emphasized the keen interest of government that British children should learn the important “landmarks” in British history. Protestant schools in Northern Ireland learn British history and Catholic schools Irish. Ultimately, accounting history exists as a distinct region of the historical universe because of the existence of the accounting profession. As Funnell [1996, p. 39] observed, the problem is that the academic community is uncertain whereabouts in the present accounting is located, at the heart of economic or social and political theory, and so the past is being used by accounting researchers to jostle for position and to justify their own perceptions of where we stand (Figure 1). Accounting history is useful to researchers as a medium for obtaining evidence to support particular worldviews.

FIGURE 1
The Anthropic Fallacy
If history in general is prone to the fallacy of taking one's present position back into the past in order to find material to justify it, the flaw is accentuated in theoretical histories. This was observed by Merino and Mayper [1993, p. 245], who said that the danger of imposing current beliefs on the past "increases exponentially when researchers use a theoretical framework." The efficacy of causal theories depends on their ability to predict the results of future observations. The theoretical historian, therefore, comes to a problem having already predicted what the outcome will be (in this respect history becomes intrinsically uncritical) and looks for supporting evidence. Bryer [1987, p. 3] unwittingly summarized this view. Reviewing a paper on what he described as "the final stages of the transition from feudalism to investor capital," he wrote:

If we can agree this [that there is a fundamental difference between the feudal and capitalist modes of production], then we have a conceptual and an historical basis for understanding the lords' 'ways of thinking', their 'aristocratic attitudes' (and platitudes), the overlap and contradiction of these notions of surplus in the aristocratic mind.

Marxism shows us how to interpret historical evidence before we have started to look. There is no suggestion of deliberate deception or that theoretical historians ignore available data or data sources. But, given the incompleteness of the historical record, together with the difficulties in accurately interpreting historical data, it is often possible to find evidence to support whatever claim. Maximizing wealth, commodifying labor, and regularizing relationships within the organization are not, after all, incompatible. In reality, there may be several reasons for a particular action, or what applies in one situation may not be valid in another, or the weighting of factors may vary between situations. An alternative, nontheoretical view of the accounting universe is that it is composed of interlocking causal relationships, which cannot necessarily be subsumed within unifying theories (Figure 2).
The best that can be achieved in history is an hypothesis rather than a causal theory. The task of the historian is to select the hypothesis which best fits the available evidence, given or constructed, neutral or biased [Hammond and Sikka, 1996, p. 79], while recognizing its intrinsic limitations together with his/her own.

CONCLUSION

The article has reviewed recent developments in accounting historiography in relation to the underlying positioning of the participants. Accounting history has become more schematic under the impetus of "critical" studies. It has located itself within the tradition of social science, which subsumes events
into generalizations and generalizations into theory. Causal theories are undermined by the unpredictable catalysts of accident and personality which impinge on accounting inertia. It follows that predictions can only be tenable in the indeterminate short-term where the level of forecast error is reduced. Furthermore, causal theories suffer from the anthropic fallacy of historical reasoning, which uses the past to justify the historian's view of the present, thereby placing him/her at the center of the historical universe. The difficulty with accounting is that it is uncertain whether it is located at the center of economic or social and political theory, and so accounting theorists are using the past to jostle for position. An alternative, nontheoretical view has been proposed in which it is accepted that the best that can be achieved in history are hypotheses whose intrinsic limitations are recognized.

Are there any implications for future research? First, theoretical history is fine and can yield useful insights, providing its limitations are recognized. Essentially, the article is a plea for more modest claims to be made on behalf of theoretical history. History is a multicellular creature, and the essence of historical inquiry lies in recognizing there are other points of view. It is not suggested that all views "are equally valid," or that it is impossible to resolve differences through "diligent search of the available evidence" [Fleischman and Parker, 1997, p. 218]. But uncertainty will remain. Second, the limitations of causal theories reinforce the need for more empirical studies to get as close as possible to the individual circumstances in which accounts were produced, the uses to which they were put, and the full range of participants involved. Despite the increased risks of belief transference, many theoretical historians use archival data to test their predictions. There are also those archivists, however, who through attempting "to stand apart from the paradigmatic debates" are in danger of becoming marginalized [Fleischman and Tyson, 1997, p. 102], and it is their work particularly that the article supports. Finally, using the past to cross-reference our position in the present fulfills a psychological need, which explains why all societies produce histories, either in written form or oral tradition. The great science fiction writer, Isaac Asimov [1986, p. 59] wrote:

There never can be a man so lost as one who is lost in the vast and intricate corridors of his own lonely mind.

... There never was a man so helpless as one who cannot remember.
The relevance of accounting history goes deeper than the utilitarian view which measures it in terms of in-feeds to modern practice. If this were all there is, the past would become less useful to us the further it were removed from the present, and one could agree with Stevelinck [1985, p. 1] that "there is little of interest to the present-day accountant in the study of primitive and obsolete accounting practices" of the ancient world. However, this view runs contrary to the historical imperative of going as far back in time as possible in the search for roots. Witness the genealogies of King David in the Bible going back to Adam and Eve or the genealogies of Anglo-Saxon kings going back to the Norse gods. Accounting history helps us to know who we are, where we came from, and how we got here [Baladouni, 1977, p. 54]. One should be careful in dismissing any historical study as antiquarianism. Furthermore, if, as this need for identity suggests, the raison d'être of accounting history is the existence of accountants, its future existence as an academic discipline ultimately depends on the future success of the accounting profession. If the profession were to decline, accounting historians would be returned to other types of historians, those who would remain interested in history, but only in so far as it impacted on their own place in the historical universe and their own fields of vision.

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LESSONS FOR POLICY MAKERS
FROM THE HISTORY OF
CONSUMPTION TAXES

Abstract: A consumption-based tax system has attracted a variety of supporters, including proponents of tax simplification and policy makers in search of more or alternative revenue sources. Such a system could involve the use of a value-added tax (VAT) or a sales tax. Policy makers and legislators should consider the history of the background of the VAT. A cursory review of the development of sales taxes is presented as a background for the problems that might be encountered in adopting the VAT. This review of the historical development shows that there are numerous and complex issues requiring careful study.

INTRODUCTION

When thousands of hard pressed taxpayers and others have reached the stage of desperation, when they are willing to try anything — any patent medicine or panacea — then they are in a mood which makes them easy victims not only of their own self deceptions but also of the alluring promises of others always anxious to find opportunities to shove their tax burdens off their own shoulders regardless of where they fall. In such times the majority of the people are not inclined to weigh alternatives carefully and may accept very questionable measures [Blakey, 1935, p. 70].

Legislators and policy makers are considering a number of alternative tax system proposals, including a flat-rate income

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tax, a national sales tax, a value-added tax (VAT), and other consumption-based systems. A consumption-based tax system has attracted a variety of supporters, including proponents of tax simplification and policy makers in search of more or alternative revenue sources [Anderson, 1994, p. 77]. Such a system could involve the use of a VAT or a sales tax. Blakey issued the above warning in 1935, alarmed over the rapid spread of sales taxes in the U.S. He would surely have cautioned us to study past experiences when considering alternatives.

Policy makers and legislators should consider the history of consumption taxes. The primary focus of this paper is on the background of the VAT. A cursory review of the development of sales taxes in the U.S. is presented as background for the problems that might be encountered in adopting a VAT. No other study could be found that examined the history and past experiences with VAT and sales taxes in the U.S. and other countries. This analysis is particularly important in light of the sweeping tax reforms that are being discussed in Congress. The question addressed in this paper is, what can be learned from the European and American experiences with consumption taxes? Specifically, what events trigger the passage of a consumption tax?

**VAT DEFINED**

Trebby [1990, p. 8] defined a VAT as “a tax on the value added by a firm during the production and distribution process to the goods and services that it purchases from other firms.” Aaron [1981, p. 2] defined “value added” as “the difference between the value of a firm’s sales and the value of the purchased material inputs used in producing goods sold.” He continued by stating that value added is the sum of a firm’s wages and salaries, interest payments, and before-tax profits.

A comparison of a VAT and a retail sales tax reveals that “the VAT is a multistage tax; the retail sales tax is a single-stage tax” [Price and Porcano, 1992, p. 45]. Table 1 provides a comparison of a VAT and a retail sales tax using hypothetical data relating to the production and sale of an oak basket.

Assume a tree farmer cuts down an oak tree (at no cost to the farmer). He sells enough of the wood to make one oak basket to a sawmill owner for $8.00. The sawmill owner cuts the wood into oak strips and sells them to a basket weaver for $12.00. The basket weaver weaves the strips into a basket and sells it to a craft-shop owner for $20.00. The craft-shop owner sells the oak basket to a customer for $30.00.
TABLE 1
Comparison of VAT and Retail Sales Tax

<table>
<thead>
<tr>
<th>Stage</th>
<th>Product</th>
<th>Price</th>
<th>Value Added</th>
<th>5% VAT</th>
<th>5% Retail Sales Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>log</td>
<td>$8.00</td>
<td>$8.00</td>
<td>$0.40</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>strips</td>
<td>12.00</td>
<td>4.00</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>basket</td>
<td>20.00</td>
<td>8.00</td>
<td>0.40</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>basket</td>
<td>30.00</td>
<td>10.00</td>
<td>0.50</td>
<td>$1.50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td>$1.50</td>
<td>$1.50</td>
</tr>
</tbody>
</table>

The total VAT paid is $1.50 or 5% of the sum of the values added at each stage. Note that the VAT generates the same amount of tax revenue as a retail sales tax of equal percentage. The major difference is that the VAT is assessed at the various intermediate stages of production whereas the retail sales tax is assessed only at the point of sale to the final consumer.

BACKGROUND OF THE PROBLEM

Many states face budget deficits and financial problems [Barney et al., 1992, p. 61]. Factors contributing to these crises include the obsolescence of state tax structures [Bucks, 1992, p. 557], the instability of tax revenues [Gold, 1991, p. 277], and the inability of state revenue growth to keep pace with the growth of the general economy [Kirchheimer, 1992, p. 79]. States are also facing the possibility that the federal government, in an attempt to reduce the federal budget deficit, will shift responsibility for many social services to state governments.

Policy makers are considering alternatives for fundamental state tax reform. A national task force composed of several state government organizations examined various reform options. The organizations represented on the task force include the National Governors’ Association, the Multistate Tax Commission, the Federation of Tax Administrators, and the National Association of State Budget Officers. Task-force members view the VAT as a viable option for restructuring state tax systems [Hoerner, 1992, p. 698]. Bucks [1992, pp. 557, 560-561] suggested that the obsolete elements of state tax systems relate to economic activity flowing across state lines. He proposed a common system of taxation of interstate and international com-

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merce — a National Enterprise Tax. One basis for this common system of taxation is the VAT.

Some states have conducted studies of their own tax structure and looked at the VAT as an option for tax reform. The KPMG Peat Marwick Policy Economics Group [1992, pp. 527-530], conducting a study of the New Hampshire state and local revenue structure, concluded that the VAT was an effective tax reform strategy for both the short-run and long-run problems of that state. According to the Texas Deputy Controller of Public Accounts, efforts to balance the state's budget over the next decade will possibly include a new tax source such as the VAT [Hubbard, 1992, p. 645]. The Florida Taxation and Budget Reform Commission commissioned a study in which the Price Waterhouse Business Tax Model simulated two options, one of which replaced the corporate income tax with a VAT.¹

Advocates of tax reform and simplification are promoting new tax structures. They note that the present tax structure is too complex, is inefficient, imposes a heavy compliance burden, and does not encourage savings [Nellen, 1995, p. 44]. Four major reform proposals recently suggested are the VAT, a national retail sales tax, a flat tax, and the USA Tax Act of 1995. The VAT is supported by House Ways and Means Chairman Bill Archer of Texas as a means to encourage savings by taxing consumption. The national retail sales tax is proposed by Senator Richard Lugar of Indiana. Bills calling for a flat tax, generally a system with a single tax rate, have been introduced by Senator Arlen Specter of Pennsylvania and House Majority Leader Dick Armey of Texas. The USA Tax Act of 1995, introduced by Senators Sam Nunn of Georgia, Pete Domenici of New Mexico, and Bob Kerrey of Nebraska, replaces the current income tax with an individual income tax that allows a deduction for net new savings and adds the VAT as a business tax [Willens and Phillips, 1995, pp. 39-41]. While not supporting any of the current tax reform proposals, a recent report of the National Commission on Economic Growth and Tax Reform, chaired by Republican Jack Kemp, pointed out faults of the current tax structure and called for a single tax rate with many deductions [AICPA, 1996, p. 27]. In addition to these proposals for tax reform, the National Commission on Restructuring the Internal

¹ The other option made two additions to the existing corporate tax structure. It added a minimum tax based on the size of the business and also provided for subchapter S treatment for qualifying corporations [see Price Waterhouse, 1991, pp. 273-274].
Revenue Service (IRS) has published a study calling for significant changes in the way the IRS is structured and governed [AICPA, 1997a, p. 21].

State governments are looking for a tax structure that will enable their tax revenues to keep pace with economic growth. Most states have balanced-budget constraints that increase the importance of volatility of tax revenues as a consideration in restructuring state tax systems. Policy makers are considering the VAT as a viable option. A review of the literature reveals a thorough examination of many issues related to the VAT. One area of interest not widely addressed in the literature is the historical development of the VAT and the debate over a national sales tax.

**VAT BACKGROUND**

*Popularity of the VAT:* Tait [1988, p. 3] called the rise of the VAT an unparalleled fiscal phenomenon. In describing how the VAT has swept the world, he used the simile, “VAT may be thought of as the Mata Hari of the tax world — many are tempted, many succumb, some tremble on the brink, while others leave only to return, eventually the attraction appears irresistible.” The VAT is no longer a tax associated only with European countries; it has spread to every continent [Tait, 1988, p. 3; Trebby, 1990, pp. 6-18]. Each year brings new adopters. Canada has implemented a Goods and Services Tax (GST) which is a VAT similar to that used in most European countries [Payne, 1991, pp. 25-26].

The VAT is truly an international phenomenon. The VAT is the standard form of sales tax throughout most of the world. Nineteen of the 23 countries comprising the Organization for Economic Coordination and Development (OECD) have adopted some type of VAT. Japan (in 1989) and Canada (in 1990) were the latest OECD countries to jump on the bandwagon. The VAT is also used in most Latin American countries, several southeast Asian countries, Korea, many African countries, the Caribbean, and New Zealand. It is a revenue generator for governments worldwide [Due, 1990, p. 383, 1991, p. 269; Price and Porcano, 1992, p. 45].

The attractiveness of the VAT has not gone unnoticed in the U.S. It has attracted considerable attention at the national level. Chambliss [1989, p. 24] wrote: “Next to nuclear disarmament, no topic has taken up more seminar time at Washington think tanks and policy boutiques than the VAT.”
The VAT has also received much notice at the state level. State legislatures, facing severe budget deficits and financial problems, look to VAT as a potential new revenue source. Two states, Louisiana and Michigan, have adopted a form of VAT. Other states have considered adoption (Texas, Florida, and the Territory of Guam) [Reinstein et al., 1990, p. 589; Due, 1991, p. 272; Ebel, 1991, p. 305].

Judicial, Legislative, and Political Considerations: In Trinova Corporation v. Michigan Department of Treasury [1991], the U.S. Supreme Court ruled that the states have the authority to adopt a VAT and that such a tax does not interfere with interstate commerce. This decision held that a VAT imposed on a taxpayer doing business within and without the State of Michigan did not violate either the due process clause or the commerce clause of the U.S. Constitution [1991, p. 836]. In discussing the ramifications of this decision, Weindruch and Repp [1991, p. 22] concluded that "more states may be willing to adopt a form of a VAT in lieu of a corporate income tax as a means of generating a greater and more stable source of revenues."

The adoption of a national VAT is viewed as an intrusion into an area of taxation historically reserved for the states. The General Accounting Office (GAO) [1989, p. 45] reported that 45 states have a broad-based consumption tax that generates a significant portion of their total tax revenues. State government officials fear that the adoption of a national VAT would make it difficult to increase state sales tax revenues. They also fear that a federal VAT would increase the pressure on states to conform with the federal tax base. Brown [1991, p. 6] pointed out that state government officials oppose a federal VAT because it could inhibit or interfere with state use of this tax base in the future. Bucks [1992, p. 561] proposed that the states jointly establish a common system of taxation using the VAT to safeguard state powers by slowing or blocking federal entry into consumption-based taxes.

The VAT Compared to the Sales Tax: Pechman [1987, pp. 204, 206] compared the VAT to the retail sales tax. While pointing out that the two taxes are similar on both economic and equity grounds, he concluded that the retail sales tax presents fewer administrative problems because it involves fewer taxpayers and less complicated calculations to determine tax liability. Although the administrative costs of the VAT are much higher
than those of the retail sales tax, any efficiency advantages of the retail sales tax may be offset by resulting inequities. The administrative burden of collecting, accounting for, and remitting the sales tax rests on a small segment of society — the retail sellers. While the VAT is similar to the retail sales tax, it is collected differently, applies more broadly, and may provide rebates to consumers not residing in the taxing district [Utz, 1993, pp. 142, 144].

From an economic theory viewpoint, the VAT is viewed as very similar to a retail sales tax. The VAT may be inferior to the retail sales tax on efficiency grounds because of its higher administrative and compliance costs, but political considerations may favor the VAT because it is less visible to the ultimate consumer [Break, 1985, p. 154; Holcombe, 1988, pp. 214, 216-217].

The primary differences between a sales tax and a VAT are the taxpayers (suppliers or demanders) and the timing of revenue flows to the government [Holcombe, 1988, p. 214]. There are different collection points for the respective tax liabilities. The retail sales tax is collected by the retail seller on a destination basis while the tax liability is based on the retail selling price. The VAT is levied at each stage of production and distribution. It is paid directly, rather than indirectly, by all firms involved in the production and distribution process and is collected on a source basis [Brown, 1991, p. 3]. These considerations suggest that the retail sales tax and the VAT could differ in terms of volatility because of differences in collection points and the timing of revenue flows to the government.

SALES TAX HISTORY

Origin of the Sales Tax: The origin of the sales tax is "shrouded in the dimness of ancient times and it or some variant has been present in certain forms in all or nearly all systems of public finance of which we have detailed knowledge" [Blakey, 1935, p. 64]. Many of the ancient types were more like selective sales taxes or excise taxes than general sales taxes. There has been much confusion over the distinction between sales and excise taxes [Blakey, 1935, pp. 63-64, fn. 3]. Sales taxes existed in ancient Egypt [Adams, 1982, p. 17]. The early Roman Republic assessed a sales tax on the sale of slaves at auction [Adams, 1982, p. 57]. Caesar Augustus used the sales tax as a supplement to an inheritance tax. In 40 A.D., Caligula abolished the
sales tax altogether with a flourish of trumpets [Adams, 1982, pp. 76-77].

The revival of the use of general sales taxes “is generally dated from the adoption of the war and post war emergency general turnover taxes of Germany (July, 1918) and France (June, 1920) and the manufacturers’ sales tax of Canada (May, 1920)” [Blakey, 1935, p. 64]. Similar taxes have been considered by Congress, but a general sales tax has never been adopted at the national level in the U.S. Thirty or more foreign countries adopted sales taxes in the 1930s [Blakey, 1935, p. 64]. Sales taxes were “confined almost wholly to foreign countries until 1930, one might almost say until 1933, but the cumulative pressures of the [Great Depression] forced the acceptance of such taxes by numerous American commonwealths” [Blakey, 1935, p. 63].

Implementation of State Sales Taxes: The sales tax became the major revenue source for states in the 1930s [Pechman, 1987, p. 259]. It continues to be one of the largest sources today as the general sales tax and the personal income tax each provide more than 30% of total state tax revenues [Gold, 1994, p. 703]. According to a recent report, general sales taxes generated $132.7 billion for the states in 1995, the individual income tax $126.3 billion, and all other taxes $142.5 billion [AICPA, 1997b, p. 23]. In 1902, almost half of state revenue was derived from property taxes and the remainder from excise taxes [Pechman, 1987, p. 259]. “The rapid development of general sales taxes is one of the most striking of post war [World War I] phenomena” [Blakey, 1935, p. 63]. The revival of the sales tax was almost completely confined to foreign countries until the depression of the 1930s forced its adoption by a number of states. During this time, many were hailing the sales tax as the savior of our public finances [Blakey, 1935, p. 63]. Opposition to the sales tax was countered with the claim that it was an emergency measure and, hence, only temporary. However, critics of the time were skeptical given past experiences with taxes. One opponent noted that efforts were underway to make the sales tax permanent in states where it had been limited and to increase the rates in several states [Bloomfield, 1935, p. 593].

Blakey cited a number of reasons for the rapid spread of sales taxes but in general it was the inability to balance budgets [Blakey, 1935, p. 64]. He argued that there were better major sources of revenue than sales taxes for federal and state governments. However, if sales taxes were to be used, the Federal
government could administer the system more uniformly and efficiently. Blakey [1935, p. 69] was amazed at how rapidly the sales tax movement was spreading to state and local governments. He asked these questions:

Are we to believe that this tax is the panacea for our financial ills? Or if not panacea, is it the best available fiscal measure to pull us through the present emergency? Moreover, does it have features of permanent value for Federal, state or local purposes? In particular what have been the experiences of those governments which have adopted the sales tax?

These are the same questions policy makers and the public should be considering in the current debates.

*Discussions about National Sales Tax:* Just as state governments were looking to the sales tax as the remedy for balancing budgets, the Hoover administration and Treasury Secretary Ogden Mills proposed in 1932 a national sales tax, euphemistically called a manufacturers’ excise tax. This proposal encountered
opposition from Congress because of the tax’s regressive nature. Bipartisan opposition, as reflected in this 1933 cartoon, led to the defeat of the proposal [Kennon and Rogers, 1989, p. 265].

Again in 1942, Treasury Secretary Morgenthau proposed a sales tax to the Senate Finance Committee, but it was flatly rejected. Several groups testified before the House Ways and Means Committee in support of a national sales tax, including the U.S. Chamber of Commerce. The Committee was flooded with postcards from consumers in opposition. Although some Republicans favored the sales tax, it was not included in the Committee bill [Kennon and Rogers, 1989, pp. 301-302]. A national sales tax was thought to be a way to meet the high costs of World War II as Uncle Sam points out to the Ways and Means chairman in the following cartoon [Kennon and Rogers, 1989, p. 299]. A 5% “Victory Tax” on income over $624 was apparently seen as more palatable.
Curiously, business and labor groups have not shown a consistent or uniform position toward sales taxes. Supporters hoped to shift tax burdens from property, incomes, inheritances, or business. Public employees saw the tax as a way to protect their jobs. Major opposition came from associations of retail merchants, who were sometimes joined by wholesalers and manufacturers, labor, and agricultural organizations. However, this opposition was often disjointed. Several agricultural groups testified against a national sales tax in 1932 but advocated state sales taxes in hopes of decreasing or eliminating real estate taxes [Blakey, 1935, p. 65].

Again in 1951, when Congress was desperately looking for revenues to counter an anticipated deficit and increased defense spending, the Ways and Means Committee rejected a proposal for a sales tax. Some form of sales tax had been advocated by business groups as an alternative to increased corporate taxes [Kennon and Rogers, 1989, pp. 310-311].

One of the four major tax reform proposals currently being considered is a national retail sales tax. Senator Lugar proposes a 17% national sales tax on the retail price of taxable goods and services [Willens and Phillips, 1995, p. 40].

A study by the AICPA pointed out that state governments using a retail sales tax exempt many types of goods and services. These exemptions include necessities, such as food, clothing, and housing; certain types of services, such as financial services and governmental services; and goods and services provided by charities. They increase administrative burdens, escalate compliance costs, and impede economic efficiency. Retail businesses must decide which items are exempt and then distinguish taxable from nontaxable sales. In addition, most states provide preferential treatment in the form of tax relief for certain sectors. This complexity results from political considerations. The AICPA study concluded that "there is nothing in the history of the Federal tax legislative process to suggest that a Federal consumption tax would be untainted by special interest provisions" [Sullivan, 1995, p. 13]

VAT HISTORY

Origin of the VAT: Concerning the origin of the VAT, Lindholm [1980, p. 24] wrote, "the roots of the value-added tax are embedded in U.S. economic theory and data." The U.S. has imported most of its taxes. For example, the income tax was imported from England, the inheritance tax from France, the sales
tax from Spain and Holland, and the property tax from China and Europe. However, if adopted in the U.S., the VAT would not be an imported tax [Lindholm, 1984, pp. 119-120]. The idea goes back to the 1920s when gross national product (GNP) data was first gathered. U.S. economists proposed the VAT out of a desire for a neutral tax that would generate substantial revenues without seriously distorting the resource allocation function of the free market system. The VAT is conceptually a tax on GNP, the market value of all final products produced in the economy. When U.S. economists provided the statistics making it possible to calculate GNP and measure current production activity, the VAT became the next logical step [Lindholm, 1980, p. 25].

Crum [1982, pp. 25-42] agreed that the VAT did conceptually and theoretically originate in the U.S. He contended, however, that the VAT emerged much earlier than the 1920s and provided evidence to support his contention. He argued that the individual elements of the VAT are traceable to colonial times.

The most active research and discussion on the VAT occurred in the U.S. and, to a lesser degree, in Germany. T.S. Adams, the father of the 1913 income tax legislation, created the early climate favorable to the reception of the VAT. His writings provided strong support for the VAT as the best approach to the taxation of businesses [Lindholm, 1980; Crum, 1984, p. 5]. Adams described the VAT as the most appropriate tax on business activity and advocated its adoption in 1922 [Trebby, 1990, p. 7].

Adams was not alone in creating a favorable climate for the VAT. In 1934, Gerhard Colm, a leading U.S. government tax expert, published an article in Social Research explaining and recommending the VAT. He also cited the works of Paul Studensky, a U.S. tax researcher, as providing an ethical and philosophical foundation for the VAT. This favorable reception led to the introduction of Senate Bill 3560 on March 11, 1940 by Senator C. Joseph O'Mahoney of Wyoming. This legislative proposal, although unsuccessful, called for the enactment of a VAT by the federal government [Lindholm, 1984, p. 121].

History of VAT in Europe: Although the U.S. and Germany were most active in researching and discussing the VAT as a national tax, France was the first country to adopt and implement it [Lindholm, 1984, p. 121]. While Japan passed legislation in 1950 to establish a national VAT, the legislation was repealed before it became effective [Crum, 1984, p. 5]. France officially
adopted the VAT on April 10, 1954 to allocate a part of the business sector's productivity to the public sector [Lindholm, 1980, p. 25]. However, the tax was not truly a VAT because it extended only through the wholesale level. Denmark adopted Europe's first true general VAT in July 1967 [McLure, 1972, p. 60].

The VAT then began to sweep throughout the continent. The rapid adoption of the VAT by European countries was an important factor in the economic integration process of Western Europe. This process began with the establishment of the European Economic Community (EC) following the Treaty of Rome in March 1957. The abolition of all customs duties and quotas in trade between EC members was an important step toward a common market. However, the most essential step was the development of a common system of taxes to replace the various taxes utilized by EC members. The various taxes were the source of distortion in competitive economic conditions among the member countries [Schiff, 1973, p. 5].

The Commission of the EC established the Fiscal and Financial Committee (FFC), chaired by Professor Fritz Neumark. The FFC, in the Neumark Report, recommended that all EC members replace their various taxes with a VAT that was identical in structure, rates, exemptions, and other details to every degree possible [Schiff, 1973, pp. 5-6].

All members of the EC agreed with the recommendation. January 1, 1970 was established as the target date for VAT adoption by all members of the EC [Crum, 1984, p. 5]. Table 2 reports the VAT adoption date by selected European countries. Some member countries adopted the tax before the target date. The final column in Table 2 is the 1996 standard VAT rate. Note that all countries have increased their rates, some substantially.

The provision in the Neumark Report calling for uniform tax rates was considered an infringement of national sovereignty, and the establishment of the tax rates was therefore left to the individual countries. This resulted in varying rate structures among them both at the point of adoption and subsequently [Schiff, 1973, pp. 6-7].
TABLE 2

VAT Rates and Dates of Adoption
Selected European Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Date of VAT Adoption</th>
<th>Standard VAT Rate at Date of Adoption</th>
<th>1996 Standard VAT Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>July 1967</td>
<td>10.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>France</td>
<td>January 1968</td>
<td>13.6</td>
<td>20.6</td>
</tr>
<tr>
<td>Germany</td>
<td>January 1968</td>
<td>10.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>January 1969</td>
<td>12.0</td>
<td>17.5</td>
</tr>
<tr>
<td>Norway</td>
<td>January 1970</td>
<td>20.0</td>
<td>23.0</td>
</tr>
<tr>
<td>Sweden</td>
<td>January 1969</td>
<td>11.1</td>
<td>25.0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>April 1973</td>
<td>10.0</td>
<td>17.5</td>
</tr>
</tbody>
</table>


As to why the FFC in its Neumark Report recommended the VAT as the common tax system, Tait [1974, p. 6] concluded that "it evolved through successive attempts to reduce the inequities of the cascade turnover tax which was the sales tax commonly used by the countries now forming the EEC." A "cascade tax," like the VAT, is a consumption-based tax. It is levied when a sale is made, but it does not allow any deduction or credit for taxes previously paid. Its effect is cumulative and provides advantages to large integrated business enterprises [Economist, 1968, p. 58].

While many European countries did have substantial cascade taxes prior to the adoption of the VAT and while most of the significant problems and defects with the cascade taxes were in fact overcome with the new VAT, it is possible that the decision to adopt the VAT was not reached primarily on the basis that it would pose fewer problems than the unsatisfactory cascade tax. Another contention is that the decision to adopt the VAT in Europe was made because of the its universality and general uniformity, its ability to raise substantial amounts of revenue, and its efficiency in terms of dealing with exports and imports [Cohen, 1971, pp. 399-400].

As the VAT swept across Europe, it became a fashionable European tax and accounted for an important share of total tax revenues [Tait, 1988, p. 24]. Table 3 provides information on the VAT’s contributions to total tax revenues for selected European countries from 1970 to 1990. In five of the seven selected
countries, VAT revenues, as a percentage of total tax revenues, remained constant or increased over the period. In France and Norway, however, VAT revenues fell as a percentage of total tax revenues.

### TABLE 3

**VAT as Percentage of Total Tax Revenue**

1970-1990

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>18.8%</td>
<td>16.9%</td>
<td>22.2%</td>
<td>22.0%</td>
<td>20.7%</td>
</tr>
<tr>
<td>France</td>
<td>25.5</td>
<td>23.4</td>
<td>21.1</td>
<td>20.0</td>
<td>18.8</td>
</tr>
<tr>
<td>Germany</td>
<td>17.1</td>
<td>14.6</td>
<td>16.6</td>
<td>15.8</td>
<td>16.6</td>
</tr>
<tr>
<td>Netherlands</td>
<td>14.6</td>
<td>14.4</td>
<td>15.8</td>
<td>16.2</td>
<td>16.5</td>
</tr>
<tr>
<td>Norway</td>
<td>23.8</td>
<td>20.5</td>
<td>18.1</td>
<td>18.2</td>
<td>18.8</td>
</tr>
<tr>
<td>Sweden</td>
<td>10.3</td>
<td>12.0</td>
<td>13.4</td>
<td>13.9</td>
<td>14.9</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.0</td>
<td>8.8</td>
<td>14.4</td>
<td>15.2</td>
<td>16.6</td>
</tr>
</tbody>
</table>


Member countries of the OECD were increasing the reliance on direct taxes from 1965 to 1975 [Tait, 1988, p. 22] Direct taxes are assessed according to certain taxpayer characteristics. Taxes based on income levels (e.g., individual income, corporate income, and payroll taxes) are direct taxes. Indirect taxes are those taxes assessed according to the characteristics of transactions (e.g.; sales taxes, the VAT, and excise taxes) [Utz, 1993, p. 31].

There was dissatisfaction with this trend of increasing reliance on direct taxes. The VAT, an indirect tax, was proposed and adopted partially as a means of halting the increase in direct taxes. France and Norway were less successful in containing the growth in direct taxes [Tait, 1988, p. 22]. In France, for example, social security taxes on employees and employers, as a percentage of total tax revenues, increased from 34.2% to 44.2%. Income taxes increased from 15.8% to 17.3%. In Norway, social security taxes on employees and employers, as a percentage of total tax revenues, increased from 11.9% in 1969 to 26.2% in 1990 [OECD, 1992, pp. 109, 135].
History of VAT in the U.S. at the Federal Level: Following the recommendation of the Neumark Commission concerning the adoption of the VAT by the EC, interest in the tax again surfaced in the U.S. The Research and Policy Committee of the Committee for Economic Development, a nonprofit organization of leaders in business and education, studied the VAT in 1966. The committee proposed that the VAT replace the corporate income tax, but the proposal was shelved following much debate over tax incidence. There was general agreement that the burden of the VAT would fall on consumers, but the theoretical and empirical uncertainty as to the incidence of the corporate income tax seriously hampered the debate [McLure, 1984, p. 185].

In 1970, President Nixon suggested that the VAT be adopted to replace local property taxes used primarily to finance public education. He appointed a task force on business taxation to study the VAT [McLure, 1984, p. 186]. The task force members rejected the immediate adoption of the VAT by a vote of 13 to 2. However, they also voted that future revenue needs be met by adopting VAT rather than by increasing corporate and personal income taxes [Lindholm, 1984, p. 121]. Again, there was debate about tax incidence, but in this case, the debate was over the incidence of the property tax. The proposal suffered in part due to the administration's diminishing interest in the VAT as the events of Watergate unfolded [McLure, 1984, pp. 185-186].

In 1973, the Advisory Commission on Intergovernmental Relations studied the VAT and concluded that its disadvantages outweighed its advantages. In 1975, the AICPA issued a report on a study concerning the VAT. The report cited the necessity for increased tax revenues but recommended less reliance on traditional income and payroll taxes. To raise the additional revenues, the report called for the adoption of a national sales tax in lieu of a VAT [Trebby, 1990, p. 7].

In 1979, Representative Al Ullman, former chairman of the House Ways and Means Committee, introduced House Resolution 5665 calling for the adoption of a VAT with a tax rate of 10% [Lindholm, 1984, p. 121]. Ullman supported the VAT as a means of reducing the federal deficit and as a way of eliminating the corporate income tax [Ullman, 1984, pp. 226-227]. Congressman Ullman's defeat in the 1980 congressional elections could be interpreted as an indication of the VAT's lack of popularity among the electorate [McLure, 1984, p. 186; Trebby, 1990, p. 7].
In 1988, Senator Hollings proposed a 5% VAT. The proposal provided that half of the VAT revenues would be used to reduce the national debt. Food, housing, and health care were to be excluded from the tax base [Chiu and Siegel, 1989, p. 3]. In September 1989, the GAO issued a briefing report on VAT policy issues to the U.S. Congressional Joint Committee on Taxation. The report pointed out arguments in favor of and against VAT but contained no recommendations [GAO, 1989].

Interest continues in the VAT at the federal level. The VAT was suggested as a method of financing the health care reform proposals of the Clinton Administration. Although the VAT idea was temporarily abandoned, it has resurfaced as reform measures are being discussed in Congress. House Ways and Means Committee Chairman Archer supports the VAT as a means of encouraging savings and investment [Willens and Phillips, 1995, p. 39]. A VAT could also generate significant revenues to reduce the budget deficit [Norton, 1993, p. 77]. A recent study issued by the AICPA reviewed a number of current proposals regarding flat taxes and consumption taxes, providing information about how each of the different approaches operates [Sullivan, 1995, pp. 1-10].

**History of VAT in the U. S. at the State Level:** There has also been considerable interest in the VAT at the state level. The Brookings Institution recommended the adoption of the VAT in Alabama in 1932 and in Iowa in 1933. Although neither state adopted it, interest continued at the state level [Lindholm, 1980]. Hawaii used a VAT-type business excise tax in the 1930s [Ebel, 1991, p. 305].

In 1953, Michigan became the first state to use the VAT when it adopted the business activities tax (BAT), a "subtraction" type VAT. The value of each business enterprise's contribution to the total output of economic goods and services was the conceptual base for the tax [Papke, 1960, pp. 350-351]. The BAT was levied on the business enterprise's adjusted gross receipts in excess of $12,500. The tax rate was 0.775%. For a "subtraction type" VAT, the base for taxation is calculated by subtracting the amounts paid to suppliers from gross receipts [Reinstein et al., 1990, pp. 589-590].

After seven years of experience, the BAT was deemed successful from an administrative viewpoint and as a revenue provider. However, the tax was viewed as unnecessarily limited in scope and somewhat inequitable due to its various exemption provisions. It was also argued that the $12,500 exemption did
not provide adequate relief for small business and resulted in an unfair burden on that sector [Papke, 1960, p. 358].

The Michigan legislature repealed the BAT in 1967 and replaced it with a corporate income tax. The corporate income tax was replaced in 1975 with the single business tax (SBT), an "addition type" of VAT. The SBT was enacted to reduce fluctuations in tax revenues and to provide a more stable basis for taxation [Reinstein et al., 1990, pp. 589-591].

Officials believe that Michigan's VAT is achieving its intended purpose. David Kirvan of Michigan's Department of the Treasury reported that the VAT has been very successful in increasing revenue stability [Hanlon, 1993, p. 307]. Jay Wortley, senior economist with Michigan's Senate Fiscal Agency, agreed that the VAT was much more stable than the corporate income tax [Davenport, 1993, p. 310].

A legislative committee formed to conduct a comprehensive study of Michigan's VAT found that representatives of smaller businesses were opposed to it. The central complaint was that the VAT placed a heavy burden on labor-intensive businesses. This discouraged employment and disproportionately favored investments in capital. Other complaints centered around high compliance costs and complexity. Representatives from banking, automotive companies, and other larger businesses supported continuation of the VAT. They contended that the VAT is a stable source of revenue, adds stability to the tax structure, and is more equitable than the taxes it replaced [Nowak and Engerer, 1993, pp. 564-565]. The legislature, with support from business groups including large and smaller businesses, responded by lowering the rate to 2.3% and raising the filing threshold to $250,000 [Kleine and Cummings, 1994, p. 17].

In 1965, Louisiana incorporated a value-added tax element in its tax structure [Due, 1991, p. 272]. Manufacturers, wholesalers, jobbers, suppliers, and brokers of tangible personal property receive advance payments of sales tax on sales to retailers [Chiu and Siegel, 1989, p. 4]. The retailers then receive credit for the amount of the advance payment against the sales tax liability based on retail sales. Several states have adopted a value-added element in the tax structure for contractors [Due, 1991, p. 272].

Other states have seriously considered the VAT. The West Virginia legislature adopted the VAT in 1970, but the governor vetoed the enacting legislation [Lindholm, 1980]. The governor of Nevada proposed a modified VAT as a business activity tax as part of his budget for the 1991-1993 biennium, but the legis-
lature voted it down [Brown, 1991, p. 1]. The Texas State Controller proposed a Texas Business Tax, similar to Michigan's SBT, which would repeal the state franchise tax and replace it with the VAT [Brown, 1991, p. 8]. The Constitutional Drafting Committee of the Florida Tax and Budget Reform Commission proposed a constitutional amendment to replace the corporate income tax and other taxes with a VAT [Townsend and Ferguson, 1992a, p. 461]. The governor of Florida prepared draft legislation to impose a VAT for tax years beginning after July 1, 1993 [Townsend and Ferguson, 1992b, p. 222], but the Florida legislature failed to enact the governor's proposal [Townsend and Greene, 1993, p. 890].

Lessons from European Experiences with the VAT: A Brookings Institution study indicated that European countries have successfully utilized different rates for different classes of goods and services and zero rating and exemptions to convert a tax that in its simplest form is regressive with respect to income into a tax that is slightly progressive [Aaron, 1981, pp. 7-9]. The study also indicated that the switch to the VAT was less costly for both business firms and tax agencies because most European countries had an existing sales tax and a collection structure already in place [Aaron, 1981, viii]. Since most states have an existing sales tax, the adoption of a national VAT could piggyback the states' collection efforts and reduce collection costs than otherwise would be the case. Bannock's [1990] study of the administrative cost in Europe pointed out that smaller businesses will bear a relatively heavier burden than larger ones.

Problem areas encountered by European countries in adopting a VAT included agricultural products, nonprofit organizations, sales of secondhand goods, and financial institutions. Most European countries have either exempted these problem areas or have provided lower rates [Aaron, 1981, pp. 9-12].

In looking at the question of increased public spending, the European experience was examined by a recent study presented at the 1996 North American Tax Policy Conference. This study indicated that the VAT did not become a money machine and that, while the overall tax burden increased somewhat from 1970-1990 for the European countries, the increase was due to increased corporate income taxes and not to the VAT [McGowan and Billings, 1996].
SUMMARY

State governments and the federal government are facing severe budget and fiscal problems. Policy makers examining alternatives for tax reform view the VAT as an attractive option for restructuring tax systems.

Although the VAT conceptually originated in the U.S. where it was first proposed as a national tax, France and Denmark were the first countries actually to adopt and implement the VAT.

A European commission recommended the adoption of the VAT by all EC members starting in 1970. Since that date, the VAT has spread across the European continent and is spreading all over the world. There are many lessons to be learned from the extensive European experience. Transition to a new tax system is difficult. Exemptions and multiple rates are necessary to combat regressivity, but they complicate administration and compliance. VAT rates in Europe have all increased, some substantially. As usual, once a new tax is enacted, the rates will be increased over time. The political costs of increasing a consumption tax, which can be passed on to others and is more hidden, are not very high.

Following the commission's recommendation of the VAT for EC members, interest in the VAT was rekindled in the U.S. It was recently mentioned as a revenue source to finance the health-care proposal of the Clinton Administration or as a way to reduce the deficit. Congressman Archer of Texas proposed the VAT as a means of encouraging savings by taxing consumption.

Past experiences suggest that the best chance to pass a VAT tax at the national level is to replace or reduce an existing tax or to meet a temporary emergency. The public will have to be persuaded by these arguments.

The federal income tax and the IRS are currently very unpopular in the U.S. Politicians are focusing on this unpopularity. Reported horror stories from irate taxpayers have generated considerable public debate and caught the politicians' attention. Restructuring of the IRS now has the support of the Clinton Administration. Several measures providing an IRS oversight board have been introduced in Congress. Perhaps the purpose of the IRS-bashing is to make it more politically expedient to replace an unpopular income tax with a more hidden consumption tax. Blakey's warning should be heeded.
The background provided in this study could provide insight into the problems that have occurred in the development of the VAT. Policy makers, having such knowledge when considering VAT as a possible revenue source, could make more informed decisions in comparing VAT with a sales tax. This review of the historical development shows that there are numerous and complex issues requiring careful study.

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Wells and Flesher: Consumption Taxes 125


Abstract: Early in the 20th century, predating most academic and practitioner literature, Dennison Manufacturing's top management recognized that certain kinds of distribution costs, normally treated as part of general overhead and allocated based on prime costs, were highly relevant for product-costing and pricing decisions. They pulled as many identifiable direct costs of distribution as possible out of the general overhead pool and assigned them to the appropriate product lines as extra information for the managers of those lines. However, these off-book assignments of costs were not fully understood and caused misunderstandings for many years. New archival evidence allows us to see the frustrations of managers who wanted to understand and use this information and how they attempted to solve these problems.

Dennison Manufacturing Company, now a subsidiary of Avery-Dennison, was founded in the mid-19th century. During the first half of the 20th century, the period of this study, Dennison manufactured a range of paper products including tags, boxes, holiday goods, crepe paper, and seals and labels. Dennison produced some five or six thousand items within those product lines, half of them special orders and half throughput, for a varied customer base. Vollmers [1993] discussed the company's treatment of distribution costs (both order-filling and order-getting costs) based on published articles by Dennison's statistician, E.S. Freeman [1929, 1933]. The company's efforts within the area of distribution costing ap-
peared to be on the cutting edge of this type of cost analysis. The subsequent discovery of materials from the company's archive relating to order-filling costs, dating from as early as 1909, enriches that previous research and is the focus of this work. Order-getting costs, such as advertising and sales expenses, were handled quite differently by the company because of their speculative nature and are therefore not considered in this paper.

First called "supplementary" and later "secondary" costs by company managers, order-filling costs arose from the clerical, warehousing, filling, packing, shipping, and collection activities on customer orders — costs incurred both prior and subsequent to the manufacturing process. Some of these costs, managers discovered, were material in size and could be directly traced or were reasonably allocable to commodity (product) lines. Accordingly, Dennison's statistical and accounting departments put an immense effort, in terms of personnel and time, into tracing, analyzing, and distributing these costs to achieve a better understanding of both how they were driven and to which commodities they were attributable. The purpose of this research is to describe the evolution of this work at Dennison and to highlight the problems the firm faced. The work begins with a brief description of the Dennison archive, followed by a literature review, the Dennison story, and a conclusion.

THE DENNISON ARCHIVE

The archive of Dennison Manufacturing is located in Framingham, Massachusetts, in a storage room in the administration building of the company. Where once the company employed professional historians to maintain and develop the company's archive, it has now sunk to quite a low state. The room is filthy, doubtlessly accelerating the deterioration of the delicate onionskin paper used for correspondence. The documents are probably only being preserved because nobody is interested enough to discard them. There is no general indexing system for the collection as a whole. Files, however, are in file cabinets; some are even organized alphabetically. The materials used in this study were found in manila file folders entitled "Secondary Costs," "Costs," "Costing Conference," and "Accounting Committee Minutes." The contents of these files overlap considerably. The researcher cannot depend upon all references to a desired topic being contained in any one folder. Other file drawers are dedicated to "Factory Cost Reports" or
“Treasurer’s Reports,” organized by date. There are no ledgers or journals. There are decades of correspondence, annual reports of the company’s governing committees, special studies (e.g., histories of products, a study of business cycles) coordinated and/or collated by the historians, etc. For a detailed description of the archive, see Vollmers [1998]. Copies of the memos and reports used in this research are available from the author.

Archival research is difficult, costly, time consuming, and subject to substantial biases. There is the bias of preservation (what was saved and why), the bias of choice (what was found and chosen by the researcher), and finally the bias of interpreting history from one’s own perspective. Is it possible to understand the past? Is objectivity possible? The bias of subjectivity has been the subject of considerable debate in the academy. Some believe the data will speak for themselves. Others find this view hopelessly naïve and argue that there is no possibility of reconstructing an objective history [see, for example, Fleischman et al., 1996]. Nevertheless, despite these problems, archival research is the only method available for approaching an understanding of how accounting was used, was integrated into the decision-making process, and was adapted to problems that surfaced in its environment.

I believe, despite possibilities of error in evidence and error in interpretation, that the archival journey is filled with fascination and meaningful information. One finds perceptions of the world and areas of familiarity that differ from one’s own. The researcher discovers surprising techniques and processes. Then one can ask why. Why did new techniques occur? Why did the methods change or disappear? Or what was it about a process that allowed it to survive? Even if one’s interpretation is misinformed to some degree, it may be that the information found will shed light on the present. If, as this research shows, activity-based costing was being used, what conditions were present that led to its adoption? Why did it not spread to other firms? Will the activity-based systems now in use disappear as did those of this earlier period or have technological advancements solved some of the problems that earlier complex systems faced? Finally, of course, archival research can be fun.

LITERATURE REVIEW

Although Dennison Manufacturing’s managers were surely not the first to turn their attention to distribution costs, their
interest appears to have arisen spontaneously. If it were com-
mon or noteworthy for any company, practitioner, or academic
to examine or discuss them, it was not reflected in contempo-
rary literature (1900-1920). Chatfield and Vangermeersch
[1996, p. 210] reported that only two articles on distribution
cost and selling expense appear in the Accountant's Index from
1910-1919 and, indeed, that seems to be the case. If there are
more articles on the topic, they are not indexed in such a way
that they can be easily identified. One of the two, Frazer's 1912
article in the Journal of Accountancy, not only appears to be
unique, but the literature did not build on this topic until the
1920s. Frazer [1912, p. 26] said that distribution costs are usu-
ally ignored, combined with other expenses, because they are
indirect, "personal and psychological in their character and do
not admit of standardization." Asserting that this treatment was
an error, he categorized distribution costs into the broad head-
ings of "cost of selling," the "cost of storing, packing and deliv-
ery," the "cost of collection," and "general indirect expense." He
discussed various methods for allocating these costs to sales
orders and the pros and cons of each. For example, the direct
costs of a sales order, including the materials and labor in-
curred in packing and shipping, should be assigned to the or-
der, with other costs allocated using a rational method "indicative
of the expenditures in the department concerned" [Frazer,
1912, p. 43]. Other literature from the period contains a fair
number of articles on keeping sales records of various types
(sales by salesmen, by territories, by customer, etc.) for analysis
purposes, but product or other costing issues are not addressed
[see, for example, Lewis, 1917]. The Accountant (British) com-
mitted but one article during the two decades to distribution
costs, stating that "few manufacturers have attempted to
analyse selling costs on a scientific basis, and very few retailers
know anything at all about their true expense of conducting
business" [Allen, 1919, p. 58].

Henry Dennison, Dennison's long-time president, joined
the Taylor Society in May 1917 and became its president in
December 1919. Since the Accountant's Index did not include
the Bulletin of the Taylor Society, would this journal be the
source for contemporary thinking about distribution costs? It
was not. The Society's Bulletin, first published in December
1914, did not contain any discussions of product costs or allo-
cations of any kind, at least during its first decade. Members
focused on various issues of efficiency but did not discuss how
to measure it, apart from time-and-motion studies, or how cost
accounting could contribute to an understanding of this elusive concept. They may well have considered costing issues among themselves, but if so, such deliberations did not make their way into the *Bulletin*.

In contrast to the silence of the previous two decades, distribution costing literature exploded in the 1920s and the 1930s. At least 30 related articles appear in the *National Association of Cost Accountants Bulletin (NACA Bulletin)*, the journal of the National Association of Cost Accountants, founded in 1919. Also, beginning around 1925, virtually all cost textbooks came to include some coverage of the topic, ranging from a few pages to several chapters [Vollmers, 1993, 1997]. Much of this literature recommended analyzing these costs by customer, channel of distribution, or territory [see, for example, Van Sickle, 1938].

This seemingly sudden fascination with distribution costs arose for a variety of reasons. The severe recession of 1920-1921 spurred a general impulse to identify and control costs. Secretary of Commerce Herbert Hoover requested a study of waste, and the resulting *Report on Waste in Industry*, released by a committee of the Federated American Engineering Societies in 1921, found, among many other things, a correlation between the large increases in distribution costs and increasing product variety. Hoover later directed the Domestic Commerce Division of the Chamber of Commerce to study distribution costs in various industries. Its series of census results, published in 1929, 1933, and 1935, confirmed the linkage between product differentiation and a spiraling increase in distribution costs [Stewart et al., 1939]. Others also recognized that distribution costs were increasing rapidly relative to other company costs [Castenholz, 1930; Longman, 1941]. Nevertheless, despite the advice of government and the apparent response of practitioners contributing to the *NACA Bulletin*, there is little evidence that many companies attempted to tackle these rather slippery, illusive, but expensive costs. In fact, in the introductory notes to Freeman's [1929] article, the editors of the *NACA Bulletin* noted that, to their knowledge, very few efforts in the distribution area were forthcoming.

An exception was Dennison Manufacturing. E.S. Freeman [1929, 1933], Dennison's chief statistician, reported in the *NACA Bulletin* that, by analyzing cost statistics the company had retained for years, causes of cost variation could be identified and used to determine more accurate costs and profits by product line. These efforts clearly presaged activity-based costing. The cost drivers, including weight of the product, number
of orders, and number of items in an order, were used to distribute variable order-filling costs to commodity lines. It is difficult to know whether these distributions actually entered the accounting records. Freeman's comments suggest true book allocations, but one cannot be sure. Earlier, as this research will show, the distributions were definitely off-book and were meant to provide chairmen with additional information regarding the costs of their product lines. The company's understanding and use of these costs evolved over time. The effort was substantial, but the results were often unclear and misunderstood.

We will see that it was Henry Dennison who maintained the momentum behind the company's interest in distribution costs. What brought his attention to this area so early? I believe the answer lies in his commitment to learning. He was a member of and a contributor to many organizations, including the aforementioned Taylor Society, the American Economic Association, the Boston Chamber of Commerce, and the Association for Labor Legislation [Dennison, 1955]. In 1922, always interested in management methods, he formed the Manufacturers Research Association, a consortium of companies that contributed personnel and financial resources to maintain a research staff for studying and sharing information about management methods. He was also a trustee of the research organization, the Twentieth Century Fund, from 1926 until his death and was vice chairman of the International Management Institute of Geneva, Switzerland from 1927-1933. Henry Dennison's business and political views, as well as the company's efforts in many areas, were frequently published and presented to interested groups. Early on, his progressive opinions on profit sharing, put into practice at his company, found their way into publication [Dewhurst, 1915; Dennison, 1918]. The company's unemployment insurance program, begun in 1916, was the first in the U.S. His opinions that good management was only possible when the manager was on-site and that financial or absentee management was bad, almost by definition, were well-known [Forester, 1912; Dennison, 1915]. His theories and efforts to smooth out business cycles were widely published [Dennison, 1922a, 1922b; Feldman, 1922].

Dennison and other company executives frequently contributed to the NACA Bulletin. The reader should note that articles included in the NACA Bulletin and the Bulletin of the Taylor Society were typically transcripts of presentations at meetings. Managers and others interested in cost accounting
issues or in solving other business problems attended these meetings to learn from one another. This commitment to contributing to and learning from peers is undoubtedly the source of Dennison’s examination of cost behavior in his own firm and the reason why he continually tried to put that understanding to use. The unique problems of distribution costs were very likely discussed informally at these meetings of managers and cost accountants, despite the absence of written evidence.

Modern literature on distribution costing has been relatively sparse. Anderson [1979], in an historical piece, reported on some of the methods of distribution analysis favored by early writers. Lambert and Armitage [1979] criticized the academy for not teaching distribution costing, handicapping practitioners by leaving them oblivious to a major area of costing difficulties. Rarely do cost or management textbooks more than mention the topic. Miller and Vollman [1985] drew attention to the explosion of overhead costs supporting factory operations. These costs are caused or driven by structural activities, not by output. Continuing to accumulate and allocate these costs using direct labor hides them and allows them to increase. Bridging the academic and the practical is an excellent research study by Schiff and Schiff [1994]. Their literature review, which ignored the rich literature of the pre-1950 period, showed that distribution costing was very topical in the 1950s and 1960s but disappeared from the literature in the 1970s and 1980s. It has reemerged in the 1990s in a small number of articles which use activity-based costing as a framework for analysis. They have also included case studies of three firms that attend closely to their marketing costs [Schiff and Schiff, 1994, pp. 9-19]. Foster et al. [1996] recognized that profitability depends not only on the unit factory cost of a product but also on the marketing, distribution, and customer services required. Hence, they recommended an activity-based costing approach to these other areas using drivers such as purchase orders, number of shipments, and number of invoices. Very recently, a series of short features by Cooper and Slagmulder [1998a, 1998b] have encouraged cost management beyond the factory walls and beyond the firm; that is, looking at costs and drivers that include, but are not limited to, both the order-filling and order-getting components of distribution costs. These feature articles are theoretical in nature and do not explain how the ideas might be put into practice.
A HISTORY OF SECONDARY COSTS
AT DENNISON MANUFACTURING

The Dennison archive contains a number of memos and reports on the topic of secondary costs spanning many years. Their existence shows that managerial recognition of these costing problems occurred very early, predating known publications in journals and textbooks. The effort to manage and understand these costs continued for many years but, contrary to Freeman's matter-of-fact presentation in his 1929 and 1933 articles, the in-house treatment of the costs confused many of the company managers for whom it was intended. Dennison's experience contributes to our understanding of why it appears that few companies tackled their distribution costs or, perhaps, why some of those that did failed to maintain interest after an initial effort. The clerical and analytical commitment was huge and the results ambiguous.

The earliest applicable company records are two virtually identical 1909 memos from the company's Committee on Records and Accounting — Dennison Manufacturing was managed largely by committees — to two executives referencing order-filling and other overhead costs. It reported that the current overhead allocation policy of distributing all general expenses aside from factory overhead using percentages based on prime cost was misleading. "This condition of things...is very undesirable as it consistently makes our best quality goods appear to cost more and our cheaper quality of goods less than they actually do cost." Since the company relied heavily on special, customized orders (about 50% of its total production), it was enormously important that managers be able to estimate costs well so that they could establish competitive and realistic bids. They proposed to mitigate the problem by changing the method of overhead allocation. They said that while productive labor hours seemed the most theoretically appropriate method of allocation, those statistics were not readily available. The next best choice, they decided, was an allocation based on productive labor dollars. Labor rates, unlike the costs of materials, did not differ significantly among products; therefore, the distribution would be more equitable. The Committee proposed that the new method of allocation be adopted in February 1910.

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1 Compare Johnson and Kaplan [1987, p. 22]: "Costs get distributed by simplistic measures ... and . . . systematically bias and distort product costs at the individual product level."
Although there was no attempt to differentiate between costs with different behavioral characteristics or, using modern terminology, different cost drivers, the Committee did understand the problems that arose from the choice of allocation base. Soon they were to begin looking even more closely at costs.

In January 1916, accounting manager A.B. Rich wrote to Freeman that Henry Dennison (then treasurer and director of works) wanted a report that separately stated the cost of packing cases in calculating the profit on product lines. Packing-case cost had been part of factory overhead, but Dennison recognized that it was largely a direct cost, not one evenly incurred over all products, and deserving of separate treatment. But how could these costs be distributed realistically to a vast array of products? Rich said the firm had on hand the cubic contents of various case sizes that could be used as standard for different products. Management might be able to distribute the cost of cases based on size, specifically cubic inches. Though packing-case costs were direct costs, the logistics of assigning them to actual products or orders was assumed to be impossible; in fact, it was never mentioned. Hence, the Rich proposal that standard costs be adopted for a variety of case sizes was justified. Undoubtedly the cost of tracking all actual costs to products would outweigh the benefit of increased accuracy.

A.B. Rich forwarded a memo later in the year from the Records and Accounts Committee to Henry Dennison for comment, demonstrating the concepts of responsibility accounting and cost drivers. Rich was concerned about both:

The warehousing and shipping which is done at Framingham does not seem to be a production expense, and consequently it should be included in the general selling expenses and not in factory cost. The more one considers the matter, the more it seems to be an item the control of which is in the hands of the selling organization and not the factory management. I am speaking of those causes of expenditure which depend on the kind of goods sold — the quantities of goods sold — the method of selling, whether or not through rehandling — and all the different methods of selling policies.

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2 This memo was stapled to another piece of paper on which Freeman had written (probably in 1917) that Henry Dennison wanted more rather than less expense allocated to products. He wanted to reduce general overhead.
If some attempt were made to include the extra cost of warehousing and shipping seasonal goods in the individual costs of the line, I believe truer returns would be made of the ultimate profit accruing from such items. Small quantities, if they prevailed exclusively, would cost more for equal value than large, as the element of labor employing handling, checking, billing to transportation companies, etc., is far greater than for a few large shipments.

Dennison’s immediate response was mixed, judging from handwritten remarks appearing on the memo. In reference to pulling warehousing and shipping out of production cost, he wrote: “I would object on the whole for it would mean one more item removed from basic cost and responsibility left in the air more or less.” He was not opposed to reclassifying costs; on the contrary, he wanted as many costs assigned to products as possible, but he was concerned that reclassifying these particular costs might remove them from anyone’s direct responsibility. Rich continued to work on this project and, though we never discover who bore ultimate responsibility for the costs, in a later memo to E.S. Freeman, he wrote that:

He [Dennison] favors our applying [warehousing and shipping] these items and any others of similar nature on the basis of the quantities as revealed by the quarterly statistics, thousands of tags etc. . . . and including with them such items as cost of cases and anything else that will be more accurately applied in this manner than it is at present.

Rich and Dennison had determined that some of these overhead items could be allocated effectively without losing responsibility. The costs were not hopelessly joint in nature and could be reasonably assigned to particular product lines. They were also material enough to warrant pulling them out of the general allocation pool. However, in order to make this assignment, neither the factory overhead pool (now allocated using direct labor cost) nor the selling expense pool (allocated on the basis of total manufacturing cost) could be used. Another method of allocation was needed and a third class of costs:

This third group . . . may include . . . warehousing and shipping distributed on a quantity basis and then also Order Department on the basis of the number of orders and Tracing on the same basis. Possibly . . . Estimating, per estimate, Billing, per order, etc, and all of these various items might total up to enough to make a
charge per order or per unit that could be added to either our Estimated costs or to our regular costs ... but would not be added to factory cost as such.

The company accountants began to work on this category of costs, calling them "supplementary costs." Neither production volume nor sales volume drove these costs but rather, cubic inches, number of estimates, and number of orders. Soon the accountants, with the help of company statisticians, had pooled this third class of costs, allocated them to product lines, and sent the commodity chairmen (managers of product lines) off-book information on the supplementary costs of the product lines for which they were responsible.

Unfortunately, the information was based on averages, so that although commodity lines (e.g., tags, boxes, and crepe) were distinguished as were components of lines (e.g., marking tags and shipping tags), the various sizes and shapes of marking and shipping tags were not differentiated. Because there was considerable variety within lines, possibly hundreds of tag varieties, the supplementary information was not of direct help in estimating or pricing individual orders. This situation led to a considerable amount of documented confusion that lasted for years. Despite the best intentions and explanations issuing from accounting and statistics, some chairmen did not understand what they were supposed to do with this information and merely added the supplementary costs to factory costs when making pricing decisions. Freeman first referred to the problem in a 1918 memo to A.B. Rich. He had discovered that some chairmen were adding the supplementary cost they had received from his department to all orders, regardless of the size of the order. For example, a dollar of supplementary cost was being added across the board to orders ranging from ten cents to five dollars:

When these [supplementary costs] were made up the idea was that they should be used by the chairmen, as a very rough indication of the additional cost applicable. Accordingly very broad averages were used. As a matter of fact, when the chairman goes to the cost sheet showing both factory and supplementary costs, he merely adds the two together and uses the total ... one being given equal weight with the other. They tell me that they are held to a profit not over the factory cost but over the complete cost. If so much weight is to be given to these they will evidently require a much more profound study.

https://egrove.olemiss.edu/aah_journal/vol26/iss1/15
A.B. Rich wrote to J.P. Wills, sending him a copy of Freeman’s memo and suggesting that they simply stop sending the information routinely to chairmen and refer to supplementary costs only when determining policies or when deciding whether to accept a special order with a very narrow profit margin. Wills responded that not all chairmen were making this error and that he was making sure that the others were informed. He wished to continue to receive the information.

In a lengthy 1918 statement, Freeman discussed innumerable supplementary costs and how they varied (cost drivers). The excerpt that follows is one of nine parts referencing clerical expense alone:

Costs varying as per item on sales orders:
- Scrutinizing the orders when they come in by order clerk and censor.
- Pricing, with selling price and cost (less extra expense on specials).
- Typewriting invoices and typewriter supplies used thereby.
- Checking invoices.
- Punching commodity statistical cards and the cost of cards used.
- Pricing cost on store bills and inter-district orders.

The excerpt identified the item on the order as what today would be labeled the cost driver. Other drivers mentioned elsewhere include the number of estimates, the volume of business, and the number of customer accounts. Freeman then proposed reasonable methods of allocation, discussing the difficulties of each method and the softness of these data. For example, referring to the distribution of shipping labor and overhead costs on the basis of cubic inches, he said: “The difficulty ... is the dispute as to what the real unit is, and the difficulty where the unit varies within a commodity statistics group. Should the carton or the box within the carton be the unit when it is quite customary to split the carton?”

Later, in 1920, Freeman told Dennison that though they could trace supplementary costs to product lines fairly well, when the totals were “reduced to averages according to commodity classifications [e.g., tags] and then multiplied by the quantity shipped it is doubtful if the result is any nearer to the truth than a percentage on cost.” Dennison responded by reiterating the purpose behind the supplementary cost idea:

I believe we can more and more pull out of that great pool of selling expense items which can be directly al-
located in one way or another, perhaps a half dozen ways. We should then ask in our prices that they cover factory cost, the specific selling costs and a further percentage to cover unallocated costs and our profit.

He wanted to find how costs varied to improve his understanding of product costs and to maximize the reasonableness of the company's pricing policies.

The only early quantitative data retained from the archive are contained in a report from the first six months of 1920, reproduced as Appendix A. It shows that of the $420,420 of secondary costs, $274,300 was allocated to the five broad lines or commodity categories. Why $146,120 of the total was called a "loss" is unclear. The bulk of the secondary costs (63%) is attributable to warehousing and shipping and the remainder to various general office expenses. This apportionment represented an additional 7.7% over manufacturing costs (materials, labor, and factory overhead — called "primary" in the table). The total amount of secondary costs added another 11.7% above manufacturing costs. The allocations to the five lines ranged from 5 to 10% of primary costs, evidence that costs had been allocated differentially. The report also shows, on the second page of Appendix A, how general office expense, which appears aggregated at the bottom of the first page of Appendix A, was distributed to stock orders, box orders, and special (custom) orders per sales order and per item in total and per unit. The total costs of the Credit Department are not shown, but company accountants assigned $5,250 of those costs to Stock Orders, $1,620 to Special Orders, Except Box Orders, and $417 to Box Orders. Considerable effort was put into pulling costs out of general overhead and placing them into the secondary cost pool. This practice supports Freeman's 1929 and 1933 presentation of how the company handled those types of order-filling costs.

Further confirmation that these costs were used appeared in a 1922 report, "Method of Distributing and Figuring Overhead Expenses," by A.L. Hawes of the Cost Accounting Department. The report stated that secondary costs were to be divided among four factors: 1) stock goods (throughput, not special orders); 2) Box Division Special Orders; 3) three categories of other special orders (simple, plain orders; ordinary special

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3 At some time prior to this report, the term "secondary" had replaced "supplementary."
printed orders; complex or complicated orders); and 4) cubical inch basis. The first three factors included costs that varied by item in an order or by work order. The fourth factor included the cost of packing cases, wrapping material, and some labor and expense of the warehousing and shipping room which varied with the size of the goods handled. This report listed overhead expenses, categorized as "Secondary Costs," and described how they were distributed. For example:

The sum of all costs applicable to stock goods [not customized] is divided by the total of all items of this class shipped, which gives the cost per item. The number of items is based upon the average quantity order at one time which are obtained from the commodity statistics report [a report generated by Freeman’s department].

and

The cost of packing cases, wrapping material and certain handling labor and expense in the warehousing and shipping rooms which varies with the size of the goods handled on the basis of 1000 cubic inches. Total expense is divided by the total number of thousand cubic inches shipped to obtain the cost per 1000 cubic inches.

Hawes said that these costs are used to help set selling prices and, in the commodity statistics reports, to determine the percentages of profit made on various items.

The purpose of these secondary costs continued to be misunderstood. In a 1923 memo, E. S. Freeman asked T. G. Portmore, chairman of the Merchandising Committee, to convene a costing and pricing conference to discuss this topic. Despite years of explanations, many people were still mistaking secondary costs for actual charges to orders rather than as additional information. "It is apparent that at least some . . . have had the impression that secondary costs were in fact charged to the orders, and as a consequence it appears that special prices on non-estimated jobs have been set lower than they would have been had these people had the correct understanding." Freeman's frustration is audible:

The widest possible publicity has always been given to the fact that secondary costs were not entered on the order. The minutes of the Merchandise Committee meeting of November 18, 1920, state this fact very definitely. During the year which followed the adoption of
secondary costs, Mr. C. F. Buckley had charge of Factory Billing Department as well as Sales Billing. That he must have known the secondary costs were not put on the order is self-evident from the fact that all the work of both departments was carried on under his direction. Furthermore, the fact that 1) Pricing and Billing were using and understanding secondary cost, and 2) Pricing and Billing were under the same chief clerk, seemed sufficient reason to assume that his successor understood. Factory Billing Department has long been turning over to the Pricing Department for investigation all orders priced by Sales Billing which showed less than 40 percent. This 40 percent was set by Mr. Howell in a letter to me last May in which the percentage was specified as 'primary revenue or gross profit,' which means over factory cost and not over factory plus secondary. A copy of this was given to Pricing Department.

It is not difficult to reconstruct the chain of events. The chairman of the Tag Division would receive the commodity statistics report for his operation. On it would appear a secondary cost of perhaps 6% on primary costs, an average across that commodity class. He was expected to adjust that percentage for types of tags and orders based on his knowledge of the good and his experience with the sales market. The customized tag orders clearly demanded more secondary costs on a percentage basis than did stock orders. However, because he believed that the secondary costs were charged uniformly to all orders, he set prices just above factory costs plus secondary cost (1.06 times factory cost). Hence, on orders requiring special care and handling, price estimates were set too low.

The minutes [1924] of the Committee on Accounting contained a familiar refrain: "Our secondary costs have never been properly understood and probably interferes with more than they aid proper judgement as to what selling prices should be." In view of long, troubled experience with them, Freeman and two other committee members recommended they be discontinued. At the conclusion of a lengthy 1925 report distributed to committee members prior to a "Special Costing Conference," E.S. Freeman reiterated that recommendation — abandon secondary costs.

Henry Dennison blocked this recommendation. Although no memo to this effect exists, circumstantial evidence abounds. These costs continued to be calculated and used by the company for many years. Freeman's 1929 article showed that the
company not only was still using secondary costs but had by then standardized them. The standards were used for budgetary control, for performance evaluation, and for informational purposes on gross profit by merchandise line (a synonym for commodity line). Freeman said that the costs of assembly, packing, and loading were directly assigned to products. These expense items were standardized based on a cost per unit varying by size. Other costs, aggregated, standardized, and called “cost per item on an order,” included those arising from pricing and invoicing, the costs of the factory accounting department, etc. These costs per item were multiplied by the total items ordered in a month. The sum of both of these totals, total cost per item and the total per unit, were added to factory costs to determine the gross profit per merchandise (commodity) line.

Freeman compiled a report (“Box Line Profit and Loss,” 1928) analyzing the probable effect on income over a number of years of dropping all or a part of the box commodity line. This keep-or-drop analysis included the differential effects of secondary costs. They were material in size, representing almost 25% of total costs. “The order-filling costs are estimated with a fair degree of accuracy. The gross profits or losses after deducting order-filling costs, can, therefore, be considered as fairly significant.” Though but a single piece of evidence, it appears that managers used secondary costs in more than one way.

The last archival reference to secondary cost is a lengthy report written in 1949 by James Dennison, Henry Dennison’s son, entitled “Interpretation of Secondary Costs for Factory and Merchandising Personnel.” At the outset, James Dennison stated that he had been asked to write the report to explain to nonaccountants what secondary costs were, their purpose, how they were calculated, and how they were allocated. He reported that 38% of warehouse costs, 27% of production-planning costs, 13% of treasurer’s costs, 13% of service costs (correspondence, etc.), 6% of the Box Division’s costs (its own shipping and warehousing departments), and 1% of Printing’s costs became Dennison’s secondary costs, amounting to $1,220,000 (Appendix B).

The first table of Appendix B, “Distribution by Commodity,” shows the assignment of the costs accrued in the support departments deemed to be secondary. For example, 21.2% of Outside Warehousing expenses were directly assigned to the Shipping and Marking Tag Line. Although many of the secondary expenses were to be divided equally among all lines, certain
lines pulled heavily on the support departments, particularly the Box Line, the Holiday Line, and the Shipping and Marking Tag Line. The second table, "Breakdown by Unit of Measure," shows how those same dollar amounts varied. Thus, Stock Costing expenses were driven 90% by the number of items in an order and 10% by the number of orders. The costs of Outside Warehousing were driven 63.5% by bulk (cubic inches) and the remainder by the order. He summarized thusly:

What does all this give us? In the first place, we have an accurate and fair way of allocating the $1,220,000 expense to the cost of our products. We know how much it costs us to handle orders for each commodity. By adding that handling cost to the primary and transportation costs, we know the total cost of making, storing and shipping every Dennison item. Subtracting the total costs from the selling price leaves a balance which indicates whether or not the item is profitable. This in itself is justification enough for all the work going into the preparation of Secondary Costs.

CONCLUSION

The purpose of this research was to add some rare archival evidence to the limited literature on distribution costs. The many pertinent internal memos at Dennison Manufacturing show that distribution costs commanded the interest of management for many years. Considerable support was forthcoming to foster understanding and to maintain control over them. Calculated at least through 1949, statistical records of costs and qualitative data were retained and analyzed for years. Without computers, calculators, or easy-to-use adding machines, this undertaking was a considerable project.

Secondary cost information was to be used primarily for preparing estimates and making pricing decisions, but at least one extant report shows that they were also integrated into differential analysis and later standardized and used for budgeting and performance evaluation. It is strikingly familiar to read that managers responded to the numbers given to them while ignoring explanations of how numbers were to be used. This pattern adds to our growing knowledge about the effect statistics and accounting measurements have on behavior and on the tendency to privilege numbers over words. The continual difficulties that Dennison's management had with distribution costing, despite strong top management support, partially explains the rarity with which this type of analysis was applied in other
firms, at least in so far as is indicated by the literature.

Managers knew that these costs were driven by factors outside of production or sales volume. They also realized that no one cost and driver were perfectly or even closely correlated. Thus, although they decided to distribute certain costs on a cubic-inch basis, there is ample recognition in the memos that this approach was not the perfect answer, only that it was superior to their former method of allocating by a percentage of cost. For example, a large order of the same product certainly cost less to handle than an order of the same size packed with a variety of products. Nevertheless, managers thought it was better that the cost assignments be more nearly correct rather than completely wrong. It is difficult to assess whether Dennison's handling of these costs greatly improved by 1949 when the last reference to them appeared and impossible to determine whether their efforts paid off on the bottom line. Clearly, however, the project was still in place, suggesting either substantial inertia or a strong belief that expanding costing parameters had benefitted the firm.

REFERENCES


APPENDIX A

Secondary Costs – 6 Months 1920
Credits from Commodity Statistics

<table>
<thead>
<tr>
<th>Lines</th>
<th>Estimated Selling Price</th>
<th>Primary Cost</th>
<th>Secondary Cost</th>
<th>Gross Amount</th>
<th>Per Cent Gross</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jewelers</td>
<td>$ 508,900</td>
<td>$ 351,600</td>
<td>$ 18,000</td>
<td>$ 139,300</td>
<td>0.396</td>
</tr>
<tr>
<td>Consumers</td>
<td>3,060,100</td>
<td>1,971,800</td>
<td>143,900</td>
<td>944,400</td>
<td>0.479</td>
</tr>
<tr>
<td>Dealers</td>
<td>808,100</td>
<td>472,800</td>
<td>37,600</td>
<td>297,700</td>
<td>0.630</td>
</tr>
<tr>
<td>Crepe</td>
<td>1,143,500</td>
<td>703,900</td>
<td>70,400</td>
<td>369,200</td>
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<tr>
<td>Holiday</td>
<td>108,400</td>
<td>67,100</td>
<td>4,400</td>
<td>36,900</td>
<td>0.550</td>
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<tr>
<td>Total Retail Profit</td>
<td>$5,629,000</td>
<td>$3,567,200</td>
<td>$274,300</td>
<td>$1,787,500</td>
<td>0.501</td>
</tr>
<tr>
<td>Total Loss on Purchases</td>
<td>$5,719,000</td>
<td>$3,567,200</td>
<td>$274,300</td>
<td>$1,877,500</td>
<td>0.526</td>
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<tr>
<td>Loss on Secondary</td>
<td>$ 19,900</td>
<td>$ 146,120</td>
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<td>(19,900)</td>
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<tr>
<td>Total</td>
<td>$5,719,000</td>
<td>$3,587,100</td>
<td>$420,420</td>
<td>$1,711,480</td>
<td>0.477</td>
</tr>
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</table>

Charges from Expense Accounts

| Packing material                           | $ 118,921 |
| Other Dept. 9 Labor and Expense            | 87,161    |
| Dept. 30 Labor and Expense                 | 60,560    |
| Total Warehousing and Shipping             | 266,642   |
| Total General Office                       | 153,778   |
| Total (In table above)                     | $ 420,420 |

Distribution of General Office Expense

<table>
<thead>
<tr>
<th>Secondary costs</th>
<th>Sales Order Basis</th>
<th>Item Basis</th>
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<tbody>
<tr>
<td>Stock Order</td>
<td>$ 49,185</td>
<td>$ 18,186</td>
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<tr>
<td>Box Orders</td>
<td>5,266</td>
<td>11,784</td>
</tr>
<tr>
<td>Special Orders</td>
<td>23,933</td>
<td>45,424</td>
</tr>
<tr>
<td>Total Per Order</td>
<td>78,384</td>
<td>75,394</td>
</tr>
<tr>
<td>Total Per Item</td>
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<td>78,384</td>
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<tr>
<td>Total Charged Secondary Costs</td>
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<td>153,778</td>
</tr>
<tr>
<td>Charged to Primary Cost</td>
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<td>25,691</td>
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<tr>
<td>Charged against Gross Profits.</td>
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<tr>
<td></td>
<td></td>
<td>$ 203,598</td>
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APPENDIX A – CONTINUED

Composition of Secondary Costs: Stock Orders

<table>
<thead>
<tr>
<th></th>
<th>Cost for 6 months</th>
<th>Cost per Order or Item</th>
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<tbody>
<tr>
<td></td>
<td>for 100 M Sales Orders</td>
<td>for 350 M Items</td>
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<tr>
<td>Credit Dept.</td>
<td>$5,250</td>
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</tr>
<tr>
<td>Planning and Tracing</td>
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<td>—</td>
</tr>
<tr>
<td>Billing</td>
<td>2,230</td>
<td>10,473</td>
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<tr>
<td>Cashier, Ledger &amp; Index</td>
<td>9,985</td>
<td>—</td>
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<tr>
<td>Costing and Tabulating</td>
<td>910</td>
<td>7,363</td>
</tr>
<tr>
<td>Filing and Mail</td>
<td>4,630</td>
<td>—</td>
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<tr>
<td>Correspondence</td>
<td>11,290</td>
<td>—</td>
</tr>
<tr>
<td>Sales Div. Stationery</td>
<td>4,660</td>
<td>—</td>
</tr>
<tr>
<td>Sales Div. Postage</td>
<td>5,115</td>
<td>—</td>
</tr>
<tr>
<td>Misc. Expense</td>
<td>1,500</td>
<td>—</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$49,185</strong></td>
<td><strong>$18,186</strong></td>
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</table>

Composition of Secondary Costs: Special Orders, Except Box Orders

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<thead>
<tr>
<th></th>
<th>Cost for 6 months</th>
<th>Cost per Order or Item</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>for 32 M Sales Orders</td>
<td>for 40 M Work Orders</td>
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<td>Credit Dept.</td>
<td>$1,620</td>
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<tr>
<td>Pricing and Estimating</td>
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<td>5,433</td>
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<tr>
<td>Planning and Tracing</td>
<td>9,275</td>
<td>31,304</td>
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<td>Billing</td>
<td>716</td>
<td>1,842</td>
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<td>Cashier, Ledger &amp; Index</td>
<td>3,179</td>
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<td>Costing and Tabulating</td>
<td>295</td>
<td>6,845</td>
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<td>Filing and Mail</td>
<td>1,473</td>
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<tr>
<td>Correspondence</td>
<td>3,700</td>
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</tr>
<tr>
<td>Sales Div. Stationery</td>
<td>1,500</td>
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<tr>
<td>Sales Div. Postage</td>
<td>1,650</td>
<td>—</td>
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<td>Misc. Expense</td>
<td>475</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$23,883</strong></td>
<td><strong>$45,424</strong></td>
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</table>

Composition of Secondary Costs: Box Orders

<table>
<thead>
<tr>
<th></th>
<th>Cost for 6 months</th>
<th>Cost per Order or Item</th>
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<tr>
<td></td>
<td>for 8000 Sales Orders</td>
<td>for 9000 Work Orders</td>
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<tr>
<td>Credit Dept.</td>
<td>$417</td>
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<td>Pricing and Estimating</td>
<td>—</td>
<td>1,500</td>
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<tr>
<td>Planning and Tracing</td>
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<tr>
<td>Billing</td>
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<td>1,924</td>
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<td>Cashier, Ledger &amp; Index</td>
<td>800</td>
<td>—</td>
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<td>Costing and Tabulating</td>
<td>72</td>
<td>3,260</td>
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<td>Filing and Mail</td>
<td>350</td>
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<tr>
<td>Correspondence</td>
<td>919</td>
<td>—</td>
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<tr>
<td>Sales Div. Stationery</td>
<td>370</td>
<td>—</td>
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<tr>
<td>Sales Div. Postage</td>
<td>410</td>
<td>—</td>
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<tr>
<td>Misc. Expense</td>
<td>122</td>
<td>—</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$35,266</strong></td>
<td><strong>$11,784</strong></td>
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APPENDIX B
Secondary Costs - Distribution by Commodity

<table>
<thead>
<tr>
<th>Secondary Expense Departments</th>
<th>Total Dollars - 1948</th>
<th>Equally Among All Lines</th>
<th>Box Line</th>
<th>Holiday Line</th>
<th>Dealers Line</th>
<th>Gummed &amp; Bronze</th>
<th>Labels &amp; Seals Consumer</th>
<th>Crepe</th>
<th>Shipping &amp; Mktg Tags</th>
<th>Outside Purchases</th>
</tr>
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<tbody>
<tr>
<td>Christmas Warehouse</td>
<td>$40,000</td>
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<td>1.9%</td>
<td>59.6%</td>
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<td></td>
<td></td>
<td>20.3%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Label</td>
<td>43,768</td>
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<td>3.8%</td>
<td>4.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.3%</td>
<td></td>
</tr>
<tr>
<td>Gum</td>
<td>16,855</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Holiday</td>
<td>23,533</td>
<td></td>
<td></td>
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<td>4.8%</td>
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<tr>
<td>Tag</td>
<td>61,962</td>
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<td>0.2%</td>
<td>5.8%</td>
<td></td>
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<td></td>
<td></td>
<td>94.0%</td>
<td></td>
</tr>
<tr>
<td>Box</td>
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</tr>
<tr>
<td>Electro Storage</td>
<td>13,789</td>
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<td>2.0%</td>
<td>10.0%</td>
<td>5.0%</td>
<td></td>
<td></td>
<td></td>
<td>3.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Order Register</td>
<td>31,830</td>
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<td>53.8%</td>
<td>4.4%</td>
<td>10.6%</td>
<td>2.3%</td>
<td>6.3%</td>
<td></td>
<td>20.0%</td>
<td>1.8%</td>
</tr>
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<td>Stock Costing</td>
<td>25,998</td>
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<td>100.0%</td>
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<td></td>
<td></td>
<td></td>
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<td>Correspondence</td>
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</tr>
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<td>Credit</td>
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<tr>
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<td>Billing</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warehouse Division</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Dept. 9</td>
<td>59,343</td>
<td></td>
<td>100.0%</td>
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<td></td>
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</tbody>
</table>

Source: Accounting Historians Journal, 1999, Vol. 26, no. 1
Published by eGrove, 1999
### APPENDIX B (Continued)

#### Secondary Costs – Distribution by Commodity

<table>
<thead>
<tr>
<th>Secondary Expense Departments</th>
<th>Outside Purchases</th>
<th>Shipping &amp; Mfg.</th>
<th>Crepe</th>
<th>Labels &amp; Seals</th>
<th>Holiday</th>
<th>Packaging Materials</th>
<th>Sales Service</th>
<th>Outside Warehousing</th>
<th>Transcribing</th>
<th>Part Office Expense</th>
<th>Marlboro-Box Division</th>
<th>Shipment</th>
<th>Milford Stk Box</th>
<th>Shipping</th>
<th>Milford Box</th>
<th>Warehouse</th>
<th>Total Dollars</th>
<th>% of Total Carried by Each Grouping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$1,219,448</td>
<td>$729,084</td>
<td>$45,077</td>
<td>$26,759</td>
<td>$98,155</td>
<td>$3,937</td>
<td>$98,202</td>
<td>$112,917</td>
<td>$27,818</td>
<td>$77,499</td>
<td>$12,917</td>
<td>$100.0%</td>
<td>9.0%</td>
<td>1.0%</td>
<td>6.0%</td>
<td>8.0%</td>
<td>4.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>3OP</td>
<td>152,048</td>
<td>89,170</td>
<td>16,930</td>
<td>30 Office</td>
<td>20.4%</td>
<td>30.6%</td>
<td>81.8%</td>
<td>22.8%</td>
<td>8.6%</td>
<td>31.8%</td>
<td>6.4%</td>
<td>60.0%</td>
<td>8.0%</td>
<td>8.0%</td>
<td>9.0%</td>
<td>0.0%</td>
<td>9.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>3OF</td>
<td>152,048</td>
<td>89,170</td>
<td>16,930</td>
<td>30 Office</td>
<td>20.4%</td>
<td>30.6%</td>
<td>81.8%</td>
<td>22.8%</td>
<td>8.6%</td>
<td>31.8%</td>
<td>6.4%</td>
<td>60.0%</td>
<td>8.0%</td>
<td>8.0%</td>
<td>9.0%</td>
<td>0.0%</td>
<td>9.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Equally Among All Lines</td>
<td>$729,084</td>
<td>$45,077</td>
<td>$26,759</td>
<td>$112,917</td>
<td>$27,818</td>
<td>$98,202</td>
<td>$98,155</td>
<td>$3,937</td>
<td>$77,499</td>
<td>$12,917</td>
<td>$3,937</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
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</table>

#### Secondary Costs – Distribution by Commodity

<table>
<thead>
<tr>
<th>Secondary Expense Departments</th>
<th>Outside Purchases</th>
<th>Shipping &amp; Mfg.</th>
<th>Crepe</th>
<th>Labels &amp; Seals</th>
<th>Holiday</th>
<th>Packaging Materials</th>
<th>Sales Service</th>
<th>Outside Warehousing</th>
<th>Transcribing</th>
<th>Part Office Expense</th>
<th>Marlboro-Box Division</th>
<th>Shipment</th>
<th>Milford Stk Box</th>
<th>Shipping</th>
<th>Milford Box</th>
<th>Warehouse</th>
<th>Total Dollars</th>
<th>% of Total Carried by Each Grouping</th>
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</thead>
<tbody>
<tr>
<td>Total</td>
<td>$1,219,448</td>
<td>$729,084</td>
<td>$45,077</td>
<td>$26,759</td>
<td>$98,155</td>
<td>$3,937</td>
<td>$98,202</td>
<td>$112,917</td>
<td>$27,818</td>
<td>$77,499</td>
<td>$12,917</td>
<td>$100.0%</td>
<td>9.0%</td>
<td>1.0%</td>
<td>6.0%</td>
<td>8.0%</td>
<td>4.0%</td>
<td>2.0%</td>
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<tr>
<td>3OP</td>
<td>152,048</td>
<td>89,170</td>
<td>16,930</td>
<td>30 Office</td>
<td>20.4%</td>
<td>30.6%</td>
<td>81.8%</td>
<td>22.8%</td>
<td>8.6%</td>
<td>31.8%</td>
<td>6.4%</td>
<td>60.0%</td>
<td>8.0%</td>
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<td>9.0%</td>
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<td>9.0%</td>
</tr>
<tr>
<td>3OF</td>
<td>152,048</td>
<td>89,170</td>
<td>16,930</td>
<td>30 Office</td>
<td>20.4%</td>
<td>30.6%</td>
<td>81.8%</td>
<td>22.8%</td>
<td>8.6%</td>
<td>31.8%</td>
<td>6.4%</td>
<td>60.0%</td>
<td>8.0%</td>
<td>8.0%</td>
<td>9.0%</td>
<td>0.0%</td>
<td>9.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Equally Among All Lines</td>
<td>$729,084</td>
<td>$45,077</td>
<td>$26,759</td>
<td>$112,917</td>
<td>$27,818</td>
<td>$98,202</td>
<td>$98,155</td>
<td>$3,937</td>
<td>$77,499</td>
<td>$12,917</td>
<td>$3,937</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
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</tbody>
</table>
### APPENDIX B (CONTINUED)

#### Secondary Costs – Breakdown By Unit Of Measure (Variable)

<table>
<thead>
<tr>
<th>Secondary Expense</th>
<th>Measured Per:</th>
<th>Measured Per:</th>
<th>Measured Per:</th>
<th>Measured Per:</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Order % Total</td>
<td>Cubic Inch % Total</td>
<td>Item % Total</td>
<td>Unit % Total</td>
<td>$ - 1948</td>
</tr>
<tr>
<td>Christmas Warehouse</td>
<td>$ 4,830 12.1%</td>
<td>$ 24,696 61.7%</td>
<td>$ 10,474 26.2%</td>
<td>$ 495 2.1%</td>
<td>$ 40,000</td>
</tr>
<tr>
<td>Production Planning Dept.</td>
<td>23,537 97.9%</td>
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<td></td>
<td>24,032</td>
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</tr>
<tr>
<td>Label</td>
<td>38,603 88.2%</td>
<td></td>
<td></td>
<td>43,768</td>
<td></td>
</tr>
<tr>
<td>Gum</td>
<td>11,798 70.0%</td>
<td></td>
<td></td>
<td>16,355</td>
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</tr>
<tr>
<td>Holiday</td>
<td>588 2.5%</td>
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<td></td>
<td>23,533</td>
<td></td>
</tr>
<tr>
<td>Tag</td>
<td>51,707 83.5%</td>
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<td></td>
<td>61,962</td>
<td></td>
</tr>
<tr>
<td>Box</td>
<td>17,022 96.5%</td>
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<td></td>
<td>17,639</td>
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</tr>
<tr>
<td>Electro Storage</td>
<td>11,717 84.9%</td>
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<td>Order Register</td>
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<td>Stock Costing</td>
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<td>23,398 90.0%</td>
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<td>Correspondence</td>
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<tr>
<td>Files</td>
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<tr>
<td>Credit</td>
<td>40,542 100.0%</td>
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<td>Accts. Receivable</td>
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<td>Billing</td>
<td>41,772 65.6%</td>
<td>21,847 34.4%</td>
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<tr>
<td>Warehouse Division</td>
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<tr>
<td>Traffic</td>
<td>29,407 80.0%</td>
<td>5,101 20.0%</td>
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<td>Dept. 9</td>
<td>11,869 20.0%</td>
<td>47,474 80.0%</td>
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<td>59,343</td>
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### APPENDIX B (Continued)
Secondary Costs – Breakdown By Unit Of Measure (Variable)

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<tr>
<th>Secondary Expense Departments</th>
<th>Measured Per:</th>
<th>Measured Per:</th>
<th>Measured Per:</th>
<th>Measured Per:</th>
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<tr>
<td></td>
<td>Order</td>
<td>% Total</td>
<td>Cubic Inch</td>
<td>% Total</td>
<td>Item</td>
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<td>3OP</td>
<td>13,978</td>
<td>9.2%</td>
<td>138,070</td>
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<td>3OF</td>
<td>27,761</td>
<td>31.1%</td>
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<tr>
<td>Packing Materials</td>
<td>131,800</td>
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<td>Sales Service</td>
<td>16,930</td>
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<td>30 Office</td>
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<td>Outside Warehousing</td>
<td>8,800</td>
<td>36.5%</td>
<td>15,233</td>
<td>63.5%</td>
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<tr>
<td>Transcribing</td>
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<td>Part Office Expense</td>
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<tr>
<td>Marlboro-Box Division</td>
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<tr>
<td>Shipping</td>
<td>52,107</td>
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<tr>
<td>Milford Stk Box</td>
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<tr>
<td>Warehousing</td>
<td>14,563</td>
<td>89.0%</td>
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<tr>
<td>Total per Variable</td>
<td>$ 556,947</td>
<td>46.0%</td>
<td>$ 451,705</td>
<td>37.3%</td>
<td>$ 72,921</td>
</tr>
</tbody>
</table>

Vollmers: Distribution Costs at Dennison
CALL FOR PAPERS

Accounting in Crises

The contemporary purpose, character and perceptions of a particular craft are often illuminated and elucidated when its pursuit is implicated in a crisis. Social scientists have often considered that the functioning of a technique together with the values and relationships which surround its practice, are most observable when its deficiencies are located as the source of a calamitous event. Discourses also surface when practices are impacted upon by exogenous adversities. Accounting historians have recognised that change in accounting practice and regulation has often been instigated by high profile failures, frauds and ensuing litigation. The role of accounting has also been made visible when the discipline and its practitioners have been perceived as repositories of possible solutions to problems which have emerged during periods of severe economic and military crisis. Total war, for example, has been a catalyst for considerable change in the accounting profession and cost accounting. These changes, in turn, have had consequences for wider organisational and social functioning. The inter-war depression saw accounting feature in the search for solutions to a crisis of capitalism. The nature of accounting and the vocation has also been laid bare at times of crisis within the discipline itself.

The object of this special issue of Accounting History is to focus on crisis and change and on crisis and making accounting visible in contemporary contexts. Submissions are sought which explore themes such as:

- The impact of particular crises on accounting development and its practitioners
- Crisis, identity and legitimacy in accounting
- Crisis and causality in accounting history
- Crisis and continuity in accounting history
- Crisis and opportunity in accounting
- Crisis and revelations of the functioning of accounting
- The profession and the management crises.

The above list is not intended to be exhaustive and contributions are encouraged which examine accounting in crises in a variety of times and locales. This special issue will appear in November 2000. Submitted papers will be refereed in the usual way.

Submissions (three copies) should be forwarded by 1 February 2000 to:

Stephen P. Walker
Department of Accounting and Business Method
University of Edinburgh
50 George Square
Edinburgh EH8 9JY
UNITED KINGDOM
I have had many fortuitous events in my life. But one of the most fortuitous was the day I walked into Professor Arthur Wyatt’s graduate accounting theory class. It was September 1958 (almost 40 years ago), and it was my second day on the campus at the University of Illinois.

I'll never forget Art’s first words to me. When he came to my name, as he called the class roll, I was surprised to hear, “Mr. Kieso, I’ll take West Aurora and 7 points.” Although Art and I were complete strangers, I shortly learned that we were from the same home town, Aurora, Illinois, albeit from competing high schools. I also learned that we both caddied at the same country club; that I had played fast-pitch softball for nearly a decade with his younger brother; and that my mother-in-law was his mother’s childhood friend and neighbor, both graduating together from East Aurora, my high school. But, up until that wager, which Art won on Thanksgiving Day when West High beat East High, we had never met or known of each other.
It was Art who persuaded me to apply for a teaching assistantship upon entering the graduate program. He even split his honors class of James Scholars with me so that I had someone to teach. Between my masters and doctoral programs, Art persuaded me to apply for a research associate position in New York with the AICPA where I was promptly assigned to work on Art's business combination research study project. During my doctoral program, Art served as my dissertation adviser, and two years after finishing my Ph.D. program, we coauthored a book on mergers and acquisitions, which was my introduction to book writing. He has supported me throughout my career as a role model, mentor, and friend—as he has done for numerous others—including some in this audience.

Art's service to the profession is well recognized and his articles and editorials have been widely read. I wish, however, to salute him for excelling as a master teacher and as an identifier and mentor of promising students. I have always felt that his transition from academe to public accounting, though smooth and extremely successful, was premature. He had cloned himself hundreds of times in the too few years he was a professor. Not to diminish what he accomplished in public accounting, but had he remained in academe, he would have enhanced the profession with thousands of additional Wyatt disciples.

I am thankful for the opportunity to have studied under and worked my entire career with a person of such intellect and sound judgment, such devotion to his students and his profession, and such extraordinary integrity.

We have played many games of golf, but I have never beat or tied him. I cannot resist concluding: "Mr. Wyatt, I'll take my home course and 18 strokes."

REMARKS

by

Jerry J. Weygandt

University of Wisconsin

I have known Art for close to 35 years. I have read most of his written work, be it articles or textbooks. I have listened to a number of his speeches, served on committees with him at the AAA and the AICPA, and socialized with him on many occasions at conventions, conferences, dinners, my home, and, of course, the golf course. Like Don Kieso, I am one of Art's many
students. He has been my mentor, and everything that Don said about Art goes double for me.

I believe we would all agree that Art is a remarkable individual. He is a leader; he has vision; he has character; he is persuasive; he is intelligent; he is articulate; he is good-humored; and, as a result, he is just great to be around. My wife calls him the Renaissance man because he can discuss intelligently so many different subjects. As they would say in the sports world, which Art knows quite well, Art is a superstar. And his record of professional accomplishments shows that:

numerous articles, presentations, textbooks, superb classroom teacher, leader of Arthur Andersen's accounting principles group, chair of AcSEC, chair of IASC, president of the AAA, and board member of the FASB. And that, in my view, is why he belongs in the Accounting Hall of Fame.

But Art is better than a superstar in my book. He possesses a unique set of qualities: a sense of commitment, a sense of responsibility, a sense of caring about the institutions he serves and the people involved in these institutions. Art participates, Art gets involved, Art makes things happen.

For example, he loves the University of Illinois. If there is a more loyal alumnus of the U. of I. and the Department of Accountancy, it would be a shock to me. What a wonderful goodwill ambassador for the University. He supports it generously with his time, expertise, and financial resources. His recent efforts to help secure the funding for the new Arthur Andersen building on campus is a wonderful illustration of his dedication to the University.

Art views his responsibilities as a teacher to go beyond just presenting content. Art cares about his students. He tries to help them. Don is a case in point, and I am another. One of the luckiest days of my life was when I walked into his auditing class at the University of Illinois in the fall of 1963. It did not take long before Art had helped me secure a teaching assistantship which started me on the path of a masters degree. And then Art discussed the Ph.D. program, and here I am today. Heaven only knows where I would be without his advice and help.

You might think Art would slow up a little and rest on his laurels at this point in his career, but that's not the case. When Art was making the transition back to teaching at the University, I tried to get him to visit Madison for a few days. He told me that he could not come—he had to cut back on both his social and golf activities because he had to spend the summer...
getting ready for class. That is the type of person Art is.

And his efforts continue to pay off. Last year at the conven­
tion in Dallas, Bob Elliot and I were talking about his recent
visit to the U. of I. Bob had spent some time with the student
body, and one thing he learned very quickly—the students love
Art Wyatt.

And, of course, Art has a strong loyalty toward Arthur
Andersen, which gave him the opportunity to move from aca­
demics into practice. He always seemed enthusiastic about his
work there and his interactions with his Andersen colleagues.
My sense is that his colleagues enjoyed the interaction every bit
as much as Art.

Art is a superb academic and a great practitioner. He is a
role model for many. He is a wonderful human being. Con­
gratulations Art for your induction into the Accounting Hall of
Fame. It is greatly deserved.

CITATION

written by
Daniel L. Jensen
The Ohio State University

read by
Donald E. Kieso and Jerry J. Weygandt

A man of principle and conviction, known for his inde­
pendence and clear thinking, he helped shape the accounting
profession in both national and international spheres through
distinguished careers in both academe and accounting practice.

At the age of five, he was struck by a car while crossing a
street in his home town of Aurora, Illinois. The doctors told his
parents that the fractures in his right leg were so serious that he
might never walk again. Fortunately for this top-notch golfer
and enthusiastic supporter of athletics, the leg mended and re­
covered fully. Working as a caddy, he learned to play and love
golf and also met a number of public accounting partners who
kindled his interest in an accounting career. During high
school, a teacher recognized his boredom with an accounting-
bookkeeping class and enlisted him in maintaining the account­
ing records for the school’s 45 student organizations and also
initiated his teaching career by arranging for him to teach ac­
counting to a local businessman.

He graduated from high school on a Friday in June of 1945
and entered the University of Illinois on the following day in
order to get one semester of college out of the way before being
drafted. Of course, the war ended that summer, and he was not
drafted until 1955 when he began two years of service in the
Army. Describing his undergraduate experience, he notes, "The
decision to start school when I did was fortuitous, as I never
had a teaching assistant or an instructor. They were all off
fighting the war. Also, I got a semester ahead academically
which permitted me to take lighter schedules in the spring se­
mers when I was on the golf team."

Upon completing his baccalaureate degree in accountancy,
he was persuaded by Professor Cecil (Tee) Moyer to enter the
masters program and accept a teaching assistantship. "The
world was backwards," he recalls. "I should have been paid to
undertake graduate work; the teaching I would have done for
nothing." Because he enjoyed the classroom so much, he de­
cided to obtain a Ph.D. which he received in 1953, upon
completion of a dissertation titled, "The Influence of Tradition
in Accounting." In 1952, as his Ph.D. program concluded, he
began 15 years of assistance to the University's golf coach—who
had been his coach during undergraduate days—by working
with the players and traveling with the team. He also had suc­
cess as an amateur golfer during these years, winning club and
local championships.

Following completion of his Ph.D. degree, he joined the
Accountancy faculty at the University of Illinois where he
strongly influenced graduate and undergraduate students,
authored many books and articles—including his classic study
of accounting for business combinations—and progressed to
the rank of full professor. Except for two years in the Army, he
remained at Illinois until 1966. In June of that year, he left to
begin a second career in public accounting with Arthur
Andersen & Co., becoming a partner just two years later. He
joined the firm's accounting principles group, working under
the leadership of George Catlett. When Catlett retired, he as­
sumed leadership of the group which had responsibility for the
firm's basic accounting policies, a role in which he was distin­
guished for his independence of thought and soundness of judg­
ment.

In 1973, he was appointed to membership on the Account­
ing Standards Executive Committee of the American Institute
of Certified Public Accountants (AICPA); he chaired the com­
mittee from 1977 to 1979. He served on the Financial Account­
ing Standards Advisory Council from 1978 to 1981 and the
AICPA Board of Directors from 1980 to 1984.
In January 1985, he left Arthur Andersen & Co. to become a member of the Financial Accounting Standards Board, where he served until his resignation in November of 1987. Upon returning to his firm, he was appointed by the AICPA as the United States representative on the International Accounting Standards Committee. He chaired that committee from July 1990 until January 1993 and is widely credited with laying the groundwork for a new era of international cooperation in the development of accounting principles.

His extensive record of contributions to organizations includes service as president of the American Accounting Association, vice-president of the AICPA, and member of countless committees and boards of professional groups, community organizations, and businesses. He is also a tireless worker on behalf of his alma mater, the University of Illinois.

When he retired from Arthur Andersen & Co. in 1992, he returned to the University of Illinois where he teaches senior accounting students. He resides in Champaign, Illinois, and spends his winters in Florida. His enthusiasm for golf has led him to sponsor several young professional golfers, and he attends a number of major golf tournaments every year. He is the 61st member of the Accounting Hall of Fame, Arthur Ramer Wyatt.

RESPONSE
by
Arthur R. Wyatt
Arthur Andersen & Co., retired,
and University of Illinois

I am certainly most thankful for the electors who felt the various aspects of my career warranted selection to the Accounting Hall of Fame. I must say that this is an honor I never expected, and when I studied the list of prior selections, 35 of whom I know or knew personally, I was really quite a little uncertain that I fit the mold. Even so, I am both pleased and honored to be here today to join truly select company.

I have often been asked how I became interested in accounting. Neither of my parents went to college, but their top priority was to see that my brother and I were able to get a college education. Their sacrifices, especially during the depression years, led them to achieve their goal. My father was self-taught in accounting, and as a youngster I found the books he
studied from, circa 1920, to be a bit fascinating. When it came
time to enter high school, he insisted that I enter the college
preparatory curriculum but that I not take courses in Latin,
which my father had found useless. My high school had never
permitted that combination, but my dad insisted. The result
was that I took a bookkeeping course as a sophomore and an
accounting course as a junior (and Spanish in my last two
years).

I graduated from high school on a Friday in June of 1945
and entered the University of Illinois the following day in order
to get one semester of college before being drafted. My ex­
pressed objective at that time was to become a CPA and work
for a large accounting firm (large being relative, of course, as
Arthur Andersen had only 25 partners when I entered college).
Of course, the war ended that summer, and I actually finished
my Ph.D. before entering the Army.

I also had entered Illinois with the hope of playing intercol­
legiate golf. Freshmen were eligible then—war years—and I got
my first chance as the 8th player on a team of 8 in our second
meet of my freshman year of eligibility. I finished 3rd on our
team that day, and never missed another meet throughout my
four years. I sustained the golf interest through graduate school
and thereafter, had some success in local and regional tourna­
ments, and also helped coach the U. of I. golf team while I was
on the faculty in the 1950s and 60s.

In my junior year I encountered Tee Moyer, the person who
had the greatest impact on my career. Tee was deeply interested
in his students, as many whom he taught would agree, and he
has been a good friend and sounding board over the years. He
encouraged me in many ways, particularly to stay on to earn a
masters degree and later to pursue a doctorate. Hi Scovill, then
his boss, offered me a TA position for the 1949-50 school year. I
often said that was when I learned the world was backwards.
They paid me (a modest amount) to teach even though after I
got involved with the teaching, I would have done it for noth­
ing. On the other hand, no one paid me for the graduate work,
but I felt they should have.

Along the way Moyer became the department head and
invited me to join his informal little accounting firm. We au­
dited the two largest businesses in Champaign, and I learned a
great deal in those engagements about professionalism and
confidentiality. I also had several courses from A.C. Littleton
right at the end of his career, and his influence on my thought
processes was vital—even though today I am convinced his em­
phasis on historical cost as a measurement base was misplaced, but that is another story. I came to appreciate the necessity of conceptual underpinnings for any reasoning process, an appreciation that served me well both in teaching and in professional practice.

Moyer urged me to stay on as a full-time assistant professor in 1953, and I did so (except for two years in the military) until 1966. In 1965, some changing policies in the College of Commerce led me to consider doing what I originally intended to do—enter the public accounting arena.

I established a contact with Arthur Andersen in 1965 primarily because they had been the most helpful firm some years earlier when I was involved with an AICPA research project dealing with business combinations. That project was a real challenge for a young Ph.D. with very little practical experience. But, Don Kieso (then a graduate student) and I fought through masses of data and reached a set of conclusions in 1960 that still seem sound today.

Andersen laid out four alternative courses for me—recruiting, training, audit practice, and what they called the research arm. The latter seemed the most challenging to me, the one that fit best my skills and interests, and it proved to be the right choice, mainly because it put me in touch with George Catlett, who became my mentor on the practice side as Tee Moyer had been in the academic arena. My years at Andersen were both challenging and rewarding. I can honestly never remember a day that I didn’t eagerly look forward to going to the office. No two days were alike, and the great people we had in our little accounting principles group made each day a learning experience.

The transition from academe to public accounting was a real challenge, in part because I moved over at an advanced level without the practice background or the institutional knowledge to support the position. While early on I was irritated by comments such as, “That’s just an academic idea,” as time passed I realized that if such a comment was the best criticism one could make about a proposal, the chances were that it was really a pretty good idea.

I attended every Accounting Principles Board meeting as Catlett’s associate from June of 1966 until the Board went out of existence in 1973. When he retired in 1978, I assumed his responsibilities in the accounting principles area. I often said it was the best position in the accounting profession. We had great independence within the firm and dealt with all the lead-
ing-edge issues facing the SEC and the FASB, including expressing the Arthur Andersen position on standards proposals, both in writing and in oral testimony.

At one APB meeting George Catlett argued that the APB needed to develop a conceptual framework if it ever hoped to move away from its ad hoc approach to writing standards. Phil Defliese and others argued that it was not possible to develop such a framework. On the plane ride home all of a sudden George turned to me and said, “By God, we’re going to do it.” “It” turned out to be the first conceptual framework and one that Arthur Andersen was continuing to use, with some modifications, into the 1990s—and may still be for all I know. That framework had a balance sheet focus and little emphasis on matching, characteristics of all subsequently developed frameworks.

When a particularly knotty problem hit our accounting principles group, the first step was to gather all the relevant information we could. Then we tried to find guidance to a resolution of the issues by reference to the framework. Of course, many times the position of the client was different from what we tentatively concluded—otherwise the issue likely would not have reached our group. At this point we were in as good a position as we could be in to assess the risk to the firm of moving away from the conceptually sound position. Sometimes we assumed that risk as bearable, and sometimes we did not. To fulfill our responsibilities in the firm, we clearly had to live the Andersen motto—Think Straight, Talk Straight.

In mid-1984, when I had six years remaining in Andersen before retiring, Duane Kullberg, then my managing partner and also the trustee of the Financial Accounting Foundation who was assigned the responsibility of identifying new FASB members, approached me about joining the Board. I had previously turned down specific offers on three prior occasions, including turning down Kullberg the prior year, for a variety of reasons. But, when your boss twists your arm, and especially when you have absorbed nearly 20 years of the Andersen culture of stepping up to new responsibilities, it was difficult to turn him down. Thus, I accepted the position with little enthusiasm and a real sense of loss for the position I was leaving.

Many people influenced my career at Andersen in a favorable manner in addition to George Catlett—Norm Olson, Bill Hall, John March, Bob Mednick, Dave Landsittel, John Stewart, Dick Dieter, Mike Crooch—and it was hard to leave them. And, Ed Jenkins and I had been particularly close, being admitted to
the firm together and working on a number of projects jointly over the years. Ed had progressed to a largely administrative position in our hierarchy and seemed a lot more frustrated than I was. When I left, he assumed leadership of the accounting principles group—a great move for the firm as well as for Ed and his ongoing career.

My time at the FASB was more frustrating than satisfying. Too many people with interests in the work of the Board were less concerned with the mission of the Board and more concerned with achieving their own private agendas. My experience with having virtually no interference with accomplishing our mission at Andersen did not prepare me well for my experience with the Board. The Board members and staff were great to deal with, but too many outsiders with perceived political power prevented us from making the progress we could have made. So, in 1987, I decided to go back to having fun and rejoined Andersen.

During the summer of 1987, I was in New York to meet with my friends on the committee of corporate reporting of the FEI when I accidentally bumped into Phil Chenok on a street corner. Phil and I had been friends from the APB days in the '60s, and he was then the head of the AICPA. During the conversation he said he was looking for a U.S. representative to serve on IASC and asked if I would be interested. After thinking it over and discussing the possibility with Ed Jenkins, soon to be my boss at Andersen, we decided this was probably a good assignment to take on. I then learned that after two and one-half years the U.S. would take on the chairmanship of IASC and that I would be put forward for that role. All in all, the five years with IASC were most satisfying. We were in the midst of moving IASC forward by strengthening its standards and adopting a conceptual framework. Their work is still progressing, and while it has several hurdles facing it, the time may well come when international standards issued by IASC become predominant in the world's markets.

Finally, the end of 1992 came and with it final retirement from Andersen and completion of the work with IASC. I had expected that real retirement would be difficult for me to handle, so I arranged to return to the University of Illinois to teach in the fall semesters, then spending the next five months or so in Florida playing golf. People have asked me why I would tie myself down with teaching responsibilities when I could be playing golf all the time. Well, if you play about 150 rounds of golf a year, the marginal benefit of another fifty or so is really
questionable. I do maintain my interest in the game and am currently the sole or principal sponsor for three young golfers trying to establish careers as professional golfers. In fact, one, Mike Small, is playing later today in the ATT-Pebble Beach Classic final round (postponed from February), and if I were not here, I would be there with him.

I also find that a limited amount of board of director appointments and a limited amount of litigation consulting fit well with my time availability. Both are fun and are satisfying without the pressures that the work at Andersen required one to endure.

My career has been most satisfying and has taken me far beyond anything I could have envisioned when I started down the road to become a CPA. I have really had twin interests that may seem diverse but that have dove-tailed nicely for me. First, I have tried to develop the same type of deep interest in the careers of my students and my associates at Andersen that Tee Moyer had for mine, and I continue to get great satisfaction from observing how my students and former associates progress as their careers unfold. Second, I have tried to develop as deep an understanding as possible of the conceptual bases of accounting in relation to the needs of financial statement users for data that reflect as clearly as possible the economic effects of business decisions made. Even in practice that process is one of continual learning, and even teaching, as well, to bring the level of understanding of line personnel up to the expectations of a changing professional environment. I have continuously learned from my associates and colleagues and have increasingly come to respect the essential virtues of looking at issues objectively, of being independent in reaching judgments, and of maintaining the highest possible level of integrity.

I am truly honored to be here today to accept this induction into the Accounting Hall of Fame.
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BOOK REVIEWS

Norton M. Bedford, A History of Accountancy at the University of Illinois at Urbana-Champaign (Urbana: Center for International Education and Research in Accounting, 164 pp., price not available)

Dale L. Flesher, Accountancy at Ole Miss: A Sesquicentennial Salute (Oxford: University of Mississippi School of Accountancy, 1997, 92 pp., price not available)


Reviewed by
Kevin F. Brown
Drexel University

To an observer of the current, sophisticated state of the many programs for business education, these programs may appear to be inseparable components of their universities. Notable characteristics of such business programs include well-developed curricula, organized faculties, consistent student bodies, and strong ties to the communities which the programs serve. Given such characteristics, these business programs may seem timeless, without any beginning. However, these programs did not always exist, and the characteristics which they display today are the result of development over time. Histories of such programs communicate how these developments occurred. An understanding of the historical evolution of programs provides an important context for evaluating current developments and challenges. Unfortunately, the body of histories of business programs is not large. Past contributions to this literature include C. Aubrey Smith's Fifty Years of Education for Business at the University of Texas [1962] and Maurice Moonitz's History of Accounting at Berkeley [1986]. However, new contributions are being added to this literature and additional histories can be expected. The purpose of this essay is to provide a brief review of the content and style of three recent additions - The University of Virginia's McIntire School of Com-
merce by William G. Shenkir and William R. Wilkerson, Accountancy at Ole Miss: A Sesquicentennial Salute by Dale L. Flesher, and A History of Accountancy at the University of Illinois at Urbana-Champaign by Norton M. Bedford.

THE MCINTIRE SCHOOL OF COMMERCE

With 141 pages of text, Shenkir and Wilkerson's The University of Virginia's McIntire School of Commerce is the longest of the three histories. Part I covers the first 50 years of the McIntire School and takes up about one-third of the text. Part II, which represents the remainder of the text, spans the next 25 years of the School's history. Appendices list faculty members, trustees, student scholarships, and awards. While Part I follows a chronological ordering, the chapters of Part II are divided among several major themes, such as curriculum, faculty, students, and administration.

Shenkir and Wilkerson begin their history with a fascinating background of the founding of the McIntire School in 1921. While the study of economics dates to the early years of the University of Virginia, the effort to include business and commerce in the curriculum began in 1904 with the appointment of Edwin A. Alderman, the first president of the University of Virginia. Alderman, realizing the potential importance of business education in a modern economy, brought Thomas Walker Page to Virginia to establish the economics and commercial curriculum. The first step in this process was the founding of the Wilson School of Economics, made possible by a $500,000 gift from Andrew Carnegie. As business practices continued to develop, spurred on by the economic demands of World War I, Alderman sought to provide more resources for education focusing on business administration and commerce. A gift of $200,000 by Paul G. McIntire in 1920 resulted in a separate school for such instruction named in his honor [Wilkerson and Shenkir, 1996].

As a state institution, the University existed to provide Virginians with an education. However, the University also viewed itself as competing academically with the prestigious private institutions of the Ivy League. As a result, the University was forced to provide exceptionally high educational quality with comparatively meager resources. The authors provide an example of the concerns about quality in discussing the struggle to separate the administration of the McIntire School from the School of Economics in the late 1940s and early 1950s. While
the accounting faculty lobbied for separation from economics, the economics faculty argued that separation would lower standards. The resolution of this issue included the formal separation of the McIntire School, with its own dean, and the creation of the Darden Graduate School of Business Administration. Later, in 1971, the McIntire School established its MS in Accounting program, followed in 1989 by the creation of an MS in MIS.

Shenkir and Wilkerson effectively divide the recent history of the McIntire School into topic areas. This division allows the authors to present material in detail while maintaining a pleasant, readable style. For example, their discussion of the development of the current curriculum at the McIntire School illustrates how the curriculum has evolved in concert with changes in the business environment. This evolution is evidenced by the inclusion of concentrations in management information systems in 1974 and international business in 1994. Interestingly, Shenkir and Wilkerson also devote two sections of the text to the planning and funding of the School's infrastructure - "Physical Facilities and the Balfour Addition" and "Building an Information Technology Platform." The inclusion of this material further demonstrates the breadth of this text.

ACCOUNTANCY AT OLE MISS

Flesher's Accountancy at Ole Miss: A Sesquicentennial Salute follows a roughly chronological ordering through its 90 pages of text. The text is divided into 18 topic areas, beginning with the heritage of the School of Accountancy and concluding with a perspective on the School's future with reference to its current mission and objectives.

The entrance of the accountancy program into the curriculum at Ole Miss in 1917 seems less harrowing than the introduction of business as a discipline at Virginia. However, Flesher captures the many challenges which the program has faced since its inception. One such challenge was the integration of Ole Miss resulting from the civil rights movement. The author reports that the uncertainty and violence of this process led to the loss of at least one faculty member to another university. Inclusion of this difficult period in Ole Miss history gives readers a deeper understanding of the institution.

One of the most interesting achievements is the formation of the School of Accountancy in 1979. While the introduction of a business curriculum may have been tranquil, the founding of
the School of Accountancy was a fierce political struggle. The idea was considered as early as 1949 by faculty member Joseph Cerny. However, the first real progress began in June 1974, when the accountancy faculty voted in support of the AICPA’s policy on the establishment of separate schools of accountancy. Flesher vividly explains the five-year confrontations between the accountancy department and the dean of the School of Business Administration, including the dean’s threats of employment rejection and tenure denial for proponents of the separate school. This reaction was not surprising given the loss of power facing the School of Business Administration if a separate school became a reality. The accountancy department responded by pressing the issue with the support of donors who served on the Professional Accountancy Advisory Council. The continuing struggle led to the resignation of the accountancy department chair, who expressed his dissatisfaction with the dean’s opposition in the local press. The director for accreditation of the AACSB joined the fray, warning that the establishment of a separate school might endanger the accreditation of the School of Business Administration. Ultimately, the accountancy department mustered enough support from alumni and professional accounting firms to win the endorsement of the chancellor of Ole Miss. In response to the creation of the separate School of Accountancy with its own dean, the dean of the School of Business Administration resigned his position.

In his coverage of more contemporary material, Flesher continues to provide a unique perspective. Discussing the establishment of the National Tax History Research Center in 1988, the author notes an indebtedness to donors of materials. One substantial contribution came from an alumnus who salvaged a wealth of materials nearly discarded by a public accounting firm. The inclusion of a brief section on the 1992 reaccreditation review of the Ole Miss doctoral program further illustrates Flesher’s insight. The author succinctly captures the accreditation process and relates how Ole Miss addressed the process. With characteristic wit, Flesher comments on the conclusions of the AACSB visitation team, noting, “Although the team concluded that the faculty was underpaid and overworked (which they already knew), the accreditation report was quite positive” [p. 52].

Throughout, Flesher conveys a sense of the humanity of the participants. He tells of the brief service of one faculty member, Robert Kane, who left Ole Miss in 1950 for a position with the AICPA in New York. Flesher notes, “Unfortunately, the move
ACCOUNTANCY AT THE UNIVERSITY OF ILLINOIS


Of the three histories discussed here, the Illinois program may call forth the greatest amount of interest from the larger academic community due to the preeminent role which the University of Illinois plays in the accountancy discipline. Throughout the monograph, readers will find evidence of the efforts that helped build this reputation. For example, Bedford relates the importance of the early leadership of Hiram T. Scovill, an Illinois alumnus, who joined the faculty in 1913. Not only did Scovill build a high quality accountancy program at Illinois, he also took on a leadership role in the American Association of University Instructors in Accounting. This leadership tradition has lead to the current implementation of Project Discovery, a response to the proposals of the Accounting Education Change Commission. Throughout the text, Bedford pays careful attention to the evolution of the curriculum in concert with corresponding changes in accountancy theory and practice.

While no history can be exhaustive, readers may wish Bedford had shared more of his personal insights. Referring to A. C. Littleton, Bedford writes:

Over the period 1939-1943, A. C. Littleton served as advisor for all twelve of the first Ph.D.s granted by the accounting division. He was highly regarded by the Ph.D. students for his theoretical concepts and analyses. His open faculty office carried the welcome ‘Come In’ to which one admiring student added ‘and crawl out’ [p. 22].

https://egrove.olemiss.edu/aah_journal/vol26/iss1/15
Unfortunately, Bedford withholds any explanation for Littleton’s apparent ominous reputation. He does, however, provide readers with a sense of his relationship with Robert Mautz, his fellow “Gold Dust Twin.” In recounting their numerous awards and achievements, the author conveys not a sense of competition, but a genuine desire to contribute to the success of the Illinois program. Further, the author relates how the controversial appointment of E. J. Demaris as department head in 1965 resulted in innovations for the program. However, Bedford notes, “The task of change was a thankless endeavor and in 1974, Professor Demaris resigned as Head of the Department” [p. 55]. The change started by Demaris, and continued under the direction of Bedford as department head, included a transition in accounting research to respond to the explosive change taking place within the discipline.

Bedford’s history is encyclopedic. Each chapter begins with listings of faculty serving at the beginning and the close of the time period under discussion as well as numerous tabular presentations. While this presentation is somewhat less readable than the Virginia or Ole Miss histories, this approach is not without merit. Bedford’s history will serve as a useful reference for particular facts about the Illinois program.

COMPARING HISTORIES

One interesting contrast among these histories pertains to institutional relationships within the respective universities. Shenkir and Wilkerson convey a vivid sense of the early struggle for recognition for business education at the University of Virginia. Undoubtedly, scarcity of resources exacerbated this struggle. However, Shenkir and Wilkerson also demonstrate how benefactors can positively impact the development of an academic program. Such a struggle for legitimacy is not readily apparent at Ole Miss or Illinois. At Ole Miss, the University did not threaten the accountancy program. Rather, the School of Business Administration attempted to block the establishment of the School of Accountancy. Like Shenkir and Wilkerson, Flesher includes recognition of donors who support the Ole Miss program. In the case of Illinois, the author’s emphasis differs from both McIntire and Ole Miss. Bedford conveys a sense of the tremendous efforts put forth by the faculty in forging and maintaining the discipline at Illinois. Also, the author portrays the Illinois faculty as providing leadership in national academic organizations. However, Bedford places less empha-
sis on the organizational dynamics which transpired between the accountancy area and the university administration at Illinois. Further, donor support appears to be an inevitable consequence of program excellence. This difference might lead to an interesting debate over the relationship between program excellence and financial support.

Another contrast can be found in the choice of material presented by the authors. The McIntire history is not as exhaustively detailed as Ole Miss and Illinois. This observation should not surprise readers. While both Flesher and Bedford focus solely on accountancy, Shenkir and Wilkerson have a broader scope of coverage. The other business disciplines included in the McIntire School require Shenkir and Wilkerson to adopt a more parsimonious approach. This parsimony is also illustrated when comparing the presentations of the development of curricula. In summary, while each history exhibits different presentation choices, those choices exhibit a sensitivity for the nature of each program.

There are also similarities among the three histories, including rich collections of photographs of buildings, students, and faculty. Such photographs allow the reader to associate a visual image with the individuals who played roles in these histories. Also, the works have broad appeal not only to the academic community but also to those interested in the educational needs of their community.

Perhaps the most important similarity to consider when comparing these histories is the role of the authors at these institutions. All of the authors have made important contributions to the success of these institutions and thus have participated in the histories which they have documented. This "participant as historian" model offers advantages and disadvantages. As eyewitnesses, the authors are able to report information unavailable to other historians, and their close relationships with other participants may result in greater candor. However, experiencing particular events as they take place may bias an author's characterization of those events.

Given the dearth of histories of business programs, these histories provide an important contribution to scholarship in this area. Moreover, as business and accountancy programs continue to mature, one should expect that more institutions will develop histories to provide constituencies with greater insights. As new histories are written, the pioneering efforts of Professors Bedford, Flesher, Shenkir, and Wilkerson will serve as a foundation upon which to continue to build this literature.
Acknowledgments: The author gratefully acknowledges the helpful comments of Gary Previts.

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Reviewed by
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Reading this book is a thoroughly enjoyable experience. While the first edition [1979] was a fine effort, this second edition is a much more academically rich achievement. The second edition has an overriding theme of the importance of property rights and its corollary in accounting, the proprietary theory. Reflecting the authors' academic and professional growth, the second edition is critical but hopeful. Likewise, the second edition is much richer in its historical discussion, reflecting Previts' experience in team teaching the history of American industrial enterprise, his presidency of the Ohio Society of CPAs, and his leadership role in the American Institute of CPAs; and Merino's long involvement with the critical school of historical thought. The authors took a much broader view of the field in this edition. For instance, the topic "Cost and Managerial Accounting" had 14 pages noted in the index for the first edition, while "Cost Accounting" had 70 pages and "Management Accounting" had seven in the second edition. The authors are also to be commended for highlighting the importance of the political nature of accounting in the United States.

The deepening of this second edition is also reflected by the following comparisons in Table 1.
Within the overriding theme of the importance of property rights, Previts and Merino developed major topics in their chapters. The reviewer noted nine of these topics. The "bottom line" is introduced early on and becomes the focal point for the concluding paragraph of the text. The second is the ambivalence of accountants in defining in a uniform manner a cash-like statistic of earnings within the traditional framework of accounting. The third is the Progressive movement in which accountants play important roles in increased efficiency in government and industry, in regulation of large businesses, and in income taxation.

The fourth is the topic of accounting for goodwill, springing from the watered stock arising from mergers and new issues of securities. The fifth is the "New Deal" and its actual effect on the development of financial reporting. The long-lasting, historical-cost allocation model is the sixth topic.

The seventh stresses the political, rather than the theoretical, basis for determining accounting principles. The second-class role of accounting for the not-for-profit sector, in relation to the private sector, is the eighth topic the reviewer noted. The ninth is the hopeful role accounting does and will play in both the national and the international arenas. The development of these nine topics within the overriding theme of property rights adds much continuity and readability to this book.
The excellence of this edition notwithstanding, the reviewer offers these points for consideration. The first edition, coming off the exciting U.S. bicentennial movement and somewhat less academic in nature, may have had some appeal to accounting practitioners. The second edition probably will have less appeal to them, except for those in leadership positions with professional bodies. Also, our students are generally considered to be less knowledgeable in U.S. history than 20 years ago. In the reviewer's opinion, this means that adopters of this edition as a text will have to devote some time to developing a proper knowledge base for the historical discussions. Perhaps adopters may consider either team teaching from the book with a history colleague or, at least, asking for help in developing a reading program for the course.

The second edition should be used as the basis for the capstone course in a 150-credit-hour program. Every Ph.D. student in accounting should read it, as well as every accounting professor. This reviewer looks forward to the continuous development of the third edition.


Reviewed by
Joann Noe Cross
University of Wisconsin Oshkosh

The title of this book is, unfortunately, terribly misleading. Although it is true that it touches on accounting for steam and cotton, it does so much more that steam engines and cotton cloth become mere footnotes to the main theme. This book is really about providing a historical and biographical perspective on the development of cost accounting techniques and their contributions toward advancing the British Industrial Revolution.

The book has three major sections. The first and second chapters are an intriguing synopsis of the economic history of manufacturing and the role accounting played in the evolution of business from selling to manufacturing. The first chapter carefully outlines the environment that encouraged the development of the factory system, the core of the Industrial Revolu-
tion. The second chapter, entitled "The People," considers the individuals who developed the principles of costing and cost accounting within that factory system. More than that, however, this chapter describes the cultural factors which motivated and molded these individuals. Many of those factors, such as the scientific tone of the Enlightenment and the role of dissenting religious views, become obvious once the author explains their somewhat obscure relationship to factory management and accounting.

The third and fourth chapters consider the specific contributions and embryonic development of cost accounting practices by Samuel Oldknow and James Watt jnr. It is from these chapters that the book gets its title. Samuel Oldknow embodied the character of the Enlightenment. He was a rationalist and a religious dissenter and as a result focused much of his energy on experimentation with industrial processes and products. According to Williams "Oldknow was involved with the cotton industry almost from the time it began its rush to prominence" [p. 77]. After a brief biographical sketch, this chapter examines in detail the types of records maintained over the course of Oldknow's career and highlights the evolution of those records. As a serendipitous side benefit, the reader gains considerable knowledge about the history of the manufacture of cotton cloth.

James Watt jnr is the topic of the fourth chapter. Again beginning with a biographical sketch, Williams contrasts and compares the preparation of Oldknow and Watt jnr for their respective positions. Whereas Oldknow was a dreamer whose inspiration far outstripped his ability to support his dreams, Watt jnr had been raised specifically to manage his father's businesses in a systematic and rational way. The chapter then turns to the organization of the Soho Foundry and the development of the detailed cost records used by James Watt jnr in setting the prices for his steam engines.

I found this book exciting and engaging. It is easy to read and certainly fulfills its intention of describing the foundations of cost accounting in the early Industrial Revolution. Its primary benefit, however, is the elegant way the author draws the reader into the story as a participant in the activities described.

Reviewed by
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This book works to clarify the history, the status quo, and the unique characteristics of the Chinese Business Accounting System (CBAS) since 1949, when the People’s Republic of China (PRC) was born. To the best of our knowledge, it is the only systematic book on the modern accounting history of the PRC. The author, Xie Shaomin, was born in the PRC and is now an associate professor at Shizuoka Seika College in Japan. From 1986 to 1989, prior to earning her doctorate in 1995 in Japan, she was an assistant professor of finance and economics at Shanghai University. We cannot but admire her efforts as well as her talents that enabled her to master the intricacies of the Japanese language and complete this wonderful work in such a short period of time.

Dr. Xie Shaomin outlines her objectives in the preface: (1) to introduce the CBAS objectively and in its economic and social contexts; (2) to grasp the character of the CBAS as it reflects accounting methods for state enterprises; (3) to understand trends through comparison and analysis of financial statements; (4) to hypothesize that the CBAS is a subsystem of public finance; that is, that that system evolved in response to changes in the distribution of economic profits; and (5) to explain how the new accounting system reflects a change in accountability from the government to the business entity itself.

This ambitious work is divided into two parts - the development of the Chinese accounting system and the internationalization of that system. The three chapters in Part I describe the development of the planned economy following the revolution in 1949, the socialist market economy since 1979, and the socialist market economy since 1993 when CBAS, CPA Law, and Company Law were published.

Some of the interesting facts from Part I include the problems caused by the Great Cultural Revolution (circa 1966 to 1977), creating disorder similar to the disregard for accounting practice following the 1917 revolution in Russia [Chapter 1]. Later, when the PRC reopened diplomatic relations with the
U.S. in 1979, economic innovation and the open-door policy resulted in numerous changes in accounting regulations. The ensuing trend towards separation of management from ownership introduced new forms of business as part or all of state enterprises were put out to contract, leased or sold to employee groups [Chapter 2]. As a result, the weight of state enterprises in the gross products decreased from 78.5% in 1979 to 48.1% in 1991, while that of group-owned enterprises increased from 21.5% and 38.0% respectively [p. 148].

Unfortunately, this reorganization of state enterprises was accompanied by the disappearance of enormous amounts of state assets as the hasty privatization bred private profiteering and hopeless disorder (similar to what has occurred more recently in Russia). It was estimated that between 1982 and 1992, 100 million yuan evaporated every day. Eventually, systematic accounting regulations, including standards of business accounting and finance, were introduced, including the modern concepts of GAAP, double-entry bookkeeping (assets = liabilities + capital), accounting for bad debts, and LIFO inventory cost flow. Accounting thus played an important role in the rationalization and modernization of the Chinese economy, resulting in renovations in numerous social and cultural institutions [Chapter 3].

Part II discusses the internationalization of CBAS and includes chapters on accounting for joint ventures, foreign investments, and equity-based enterprises. Though familiar in the West, these concepts were novel for accountants in the PRC. The efforts to establish Business Accounting Standards (BAS) began in 1988 at the Finance Ministry, though the Chinese Accounting Association had formed a research group the preceding year. A specialist on International Accounting Standards from the World Bank also participated in the standard-setting efforts. BAS became law on July 1, 1993. In Part II, Dr. Xie Shaomin also makes numerous comparisons between the Chinese accounting system and those of Japan, the U.S., and the IASC.

In our opinion, this extraordinary effort is a nonperishable fruit. Certainly, Dr. Xie Shaomin has made a notable and lasting contribution to the study of Chinese accounting history. The abundant information and the many tables and figures help make intricate relations and unique terms understandable. Her earnest, wholehearted devotion to inquiry realized an abundant harvest, one that is professional, coherent, and readable.
"...but you gods will give us/Some faults to make us men..." (Antony and Cleopatra 5:1, pp. 32-33). There may be no perfect writings without any demerits, and we find a few questions to be unresolved even in this work. First is the insufficient narration on the groundwork of socialism. As far as we know, socialist modes of production are built on the planned economy and state ownership of the means of production. A mere contrast of balance sheet items does not justify one of the author's vital conclusions, that the nature of "traditional" Chinese accounting is a combination of public accounting and individual business accounting. We think the composition of the balance sheet is reasonable regardless of historic stage, such as feudalism or socialism, but the contents differ remarkably according to ownership.

Our next question derives from the first. Dr. Xie Shaomin regards the accounting system under the planned economy as "traditional," but, as we read her description of the accounting books published in the PRC, the Soviet model appears to be the prototype of the Chinese "traditional" system. Evidence of this perception is the absence of any model to be applied to the socialist economy just after the revolution. Readers will not easily understand the meaning of "traditional" in this respect.

The second question leads us to the last. What is the difference between the early CBAS and the Soviet accounting system? We wish to know the differences, if any.

Despite the above comments, Professor Xie has bequeathed a monumental treasure to research in accounting history. The historians will say to her, "xie xie" (pronounced "shie shie," meaning thank you in Chinese).
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