

Three Key Issues Make Impact **The Accounting Profession in the New Millennium**

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The accounting profession experienced tremendous growth and success in the 20th century. The expanded role of accountants in U.S. society can be traced to a number of specific factors such as the emergence of large organizations and the attendant separation of ownership and control, the passage of income tax and securities legislation, and the increasing complexity of business transactions. However, the historical success of the profession has been overshadowed by certain events of the past two decades. Notable among these are the "litigation crisis" and related allegations of misconduct that have plagued CPA firms, the lack of growth of traditional CPA services such as auditing, and a perceived reduction of public confidence in the profession.

As we approach the end of the millennium, there will be a great deal of speculation about what the future holds for professional accountants. For example, how will the role of the accountant change in the developing information age? Will additional advancements in information technology further reduce the need for accountants and auditors? How should the accountant of tomorrow be trained and educated?

This article examines three related trends that have particularly significant implications for the future of the accounting profession: the developing "information society," the expansion of knowledge and increasing specialization within the profession, and the movement toward a graduate or professional education entry requirement.

A great deal is being written today about advances in computer technology and how it is ushering in a new "information society." For example, experts have predicted that the fusion of computing and communications will fundamentally reshape our society¹ and that computers will soon be ubiquitous and woven into the fabric of our daily lives.²

Technological developments have been transforming business and accounting for the past century and will continue to do so in the future. It has often been observed that computerization decreases demand for clerical and entry-level accounting workers.³ However, the accounting profession has continued to grow over the past two decades despite the widespread use of computer information systems to perform routine accounting tasks.

One can understand why this is so by referring to the work of Malone and Rockart. These authors point out that many of the most important uses of computers today concern coordination tasks, such as keeping track of orders, inventory, and accounts. Improvements in technology have reduced coordination costs and led to the substitution of technology for human coordination. Although this change has eliminated many clerical jobs, it is simply the first-order effect on technological advancements. An important second-order effect has been the demand for more coordination. In many cases, the second-order effects of increased demand have overwhelmed the first-order effects of substitution. For example,

positions have been eliminated in many organizations, but new workers have been added to take on projects that were not considered feasible before.⁴

Similar observations apply to the accounting profession. The first-order effect of advances in information systems technology has been the elimination of many low-level accounting positions. However, the increased availability of information has led to increased demand for information by users, which has created new opportunities for professional accountants.

To illustrate, consider the example of external reporting. For most of the 20th century, the primary sources of official information available to capital suppliers were the quarterly and annual historical cost financial statements issued by corporations. A principal constraint on the availability of information was the cost of its preparation. Advances in information technology have eased this constraint, so more information is now available at a relatively low cost. As a result, investors and creditors now demand much more information for decision-making purposes.⁵

Further increases in information demand are expected in the future. Much of this information likely will be provided through on-line databases that report extensive, up-to-the-minute data. It has also been speculated that in the 21st century the historical cost accounting model may be replaced by fair market value accounting.⁶ Because of the fundamental stewardship role served by historical accounting infor-

mation and the decreasing cost of its production, it is more likely that corporations will provide fair value information as a supplement to historical financial statements. In either event, until capital suppliers reach a point where they believe that they have all relevant information, decreases in the cost of information production will probably continue to spur increases in information demand.

Increases in demand for externally-

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reported information will continue to create new opportunities for professional accountants in private industry and public practice. More accountants will be employed in industry to develop, maintain, and monitor sophisticated reporting systems. Because of the increased volume of information reported and the increased complexity of the reporting mechanisms, demand for auditing or monitoring services by both internal and external auditors should also increase in the future. In addition, the expanded volume of information available will create additional demand for the analysis and interpretation of information for decision-making purposes.

New CPA Services

In anticipation of these developments, the American Institute of Certified Public Accountants (AICPA) formed its Special Committee on Assurance Services (SCAS) which proposed several new types of CPA services.⁷ The SCAS defined *assurance* broadly to encompass traditional attestation services such as auditing, which focus on the *reliability* of information, as well as services that focus on the *relevance* of information and its appropriate use in

decision-making.⁸ Based on in-depth interviews with information users such as institutional investors and investment analysts, the SCAS concluded that the demand for assurance on relevance will increase in the future.

These findings are consistent with the observations of Malone and Rockart: “What will happen as the globally-networked society leads to a world in which vast amounts of information are freely available or easily purchased? Clearly, this world will require services, both automated and human, to filter the tremendous amount of information available. In general, as the amount of information increases, people who can creatively analyze, edit, and act on information in ways that cannot be automated will become even more valuable.”⁹ Thus, the increased volume of information available to capital suppliers will create new opportunities for accountants to assist in determining what information is relevant for decision-making and how that information should be used.

The current impetus to expand assurance services is only one example of how advances in information technology create new opportunities for information professionals such as accountants and auditors. The following examples further illustrate this point:

- Computerization has created demand for systems analysts and systems security experts. This demand should continue to expand as more businesses adopt sophisticated information technologies.
- The increased complexity of business information systems has created new opportunities for white-collar crime, which has increased the demand for fraud auditing and forensic accounting services. The trend toward more sophisticated data-related crimes will continue in the future.¹⁰
- The Internet and related technologies have created new consulting opportunities for accountants and should continue to do so. Articles about the implications of the Internet for accountants regularly appear in the professional literature.¹¹

A significant implication of the developing information society, which is

evident from the above examples, is that many of the new opportunities available to accountants will require increased sophistication in information technology. To successfully capture the market for such services, accountants will need more advanced training and greater skills than they currently possess.

Much concern has been expressed recently about the ability of accountants to successfully compete in the developing market for information services. In fact, according to R. Telberg, consensus among many leaders of the profession is that if professional accountants don't gain a greater competitive edge in information technology within the next few years, they may face extinction.¹²

However, the profession does appear to be responding to such concerns. For example, the AICPA recently published a monograph entitled, “Information Technology Competencies in the Accounting Profession; AICPA Implementation strategies for IFAC International Education Guideline No. 11, Implications for Education and Practice,” which recommends increased emphasis on information technology in both prequalification (university) and postqualification (continuing education) training for professional accountants. In addition, the AICPA recently announced the formation of a partnership with Microsoft for the purpose of providing information technology

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training for practicing accountants.

With such strategic changes in education and training, professional accountants should be able to develop the skills they need to successfully compete in the market for new types of information services. This vision is shared by many of the profession's leaders. For example, current AICPA Chairman Robert Mednick recently observed: "... the current explosion of information will place new and increasing demands on the data-gathering, analyzing, and evaluation skills of every CPA. This new world will open real

employment has risen significantly over the past two decades, the number of CPAs, who generally hold higher-level positions, has grown at a much faster rate. This movement toward the "professionalization" of accounting should continue in the future.

Growth of Knowledge and Specialization

The increased knowledge requirements precipitated by technological developments are one of many examples of the rapid growth of the body of knowledge required for accounting practice. The

counting knowledge had not developed sufficiently to justify any educational emphasis. The absence of professional subjects such as accounting from university curricula during this time period was indicative of the traditional focus of university education on liberal learning. As knowledge in professional fields later expanded, this led to disciplinary specialization.

As the body of knowledge for entry to the profession was defined and began to expand, leading business schools began to offer degrees in accounting. According to one researcher, 60 U.S. universities were offering accounting majors by 1926.¹⁵ At this early stage in the profession's history, it was feasible to offer a well-rounded background in most of the major accounting subdisciplines such as financial accounting, managerial accounting, and auditing.

Accounting educators are now being criticized for not adequately preparing entry-level accountants. For example, in their widely cited 1994 report entitled "What Corporate America Wants in Entry-Level Accountants," the Institute of Management Accountants (IMA) and the Financial Executives Institute (FEI) documented significant deficiencies in management accounting education. The fundamental problem underlying this deficiency is the increase in the knowledge and skill levels required for accounting practice. It is no longer possible for undergraduate programs to provide more than superficial coverage of major subdisciplines such as managerial accounting, auditing, and taxation. Continuing expansion of the professional knowledge base will lead to increased specialization in accounting practice and education.

A trend toward specialization in accounting practice has been evident for some time. For example, several specialty certifications were established in the early 1970s, such as the Certified Management Accountant (CMA) and Certified Internal Auditor (CIA) programs. The membership in these and other certification programs has grown steadily since their inception. For example, in 1995 there were approximately 17,000 licensed CMAs, and the Institute of Certified Management Accountants (ICMA) has set a goal to have 80,000 CMAs by the year 2000.¹⁶ If the ICMA reaches its goal,

	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>1994</u>
Total Accounting Employment ¹	646	1,013	1,446	1,483
AICPA Membership ²	74	161	296	319
AICPA Members as Percentage of Total Accounting Employment	11	16	20	22

1 From U.S. Department of Commerce, Bureau of the Census, U.S. Statistical Abstract, various years
2 Based on information including in the AICPA Annual Reports

opportunities for new, value-added service offerings by the profession. If we meet this challenge thoughtfully and enthusiastically, there is no reason that today's CPA should not be recognized as the premier 'independent information professional' of tomorrow."¹³

The envisioned shift in the accountant's role to that of an "information professional" should perpetuate the historical trend toward the creation of higher-level jobs at the expense of clerical accounting functions. This trend is evident from an examination of the data reported in Table One. As indicated in the table, AICPA membership expanded from 74,000 in 1970 to 319,000 in 1994, an increase of approximately 330 percent. Over the same time period, total U.S. accounting employment grew from 646,000 to 1,483,000, an increase of only 130 percent. Thus, although total accounting

volume of accounting standards, as well as regulatory requirements, of which accountants must be cognizant is continually expanding. One can gain an appreciation for the extent of the growth in accounting knowledge during the past century by reviewing developments in accounting education during the same time period.

At the turn of the century, no American university offered a major in accounting. Those who entered the profession were usually trained in economics or liberal arts if they attended college at all. In fact, the first university accounting course on record in the U.S. was taught at the University of Pennsylvania's Wharton School of Finance and Economics in 1883, and by 1900, only 12 U.S. schools offered accounting classes.¹⁴ The absence of accounting from university curricula reflected the fact that the body of ac-

there will be almost as many CMAs by the year 2000 as there were CPAs in 1970.

Although university accounting programs have lagged significantly behind practice developments, the need for increased specialization appears to be gaining acceptance, and some schools have instituted specialty "track" programs in accounting. For example, a survey by Siegel and Kulesza found that a number of schools are offering or considering offering specialty tracks within the undergraduate accounting major. The primary thrust of this movement seems to be on more emphasis of management accounting, in response to the IMA/FEI study. However, some schools are also offering tracks in other subdisciplines, such as governmental accounting.¹⁷

Beyond the Bachelor's Degree

Some universities are currently implementing specialty tracks at the undergraduate level. However, certain factors suggest that, although additional specialization will probably be required for entry to the accounting profession in the future, it is more likely to be provided at the graduate, rather than the undergraduate, level:

- As discussed below, accounting appears to be in a period of transition from undergraduate education to a requirement of graduate education. Graduate professional education, such as that required for entry to the medical and legal professions, has traditionally relied on broad training at the undergraduate level followed by increasing specialization at the graduate level.
- The CPA license remains the most visible and attractive feature of the accounting profession. In the foreseeable future, it will be difficult to attract quality students to programs that do not provide a well-rounded accounting education that prepares them for the CPA exam. For example, L.B. Fletcher, *et al.* reported that one university had found little demand for its separate track in management accounting.¹⁸
- Accounting education currently follows a model of increasing specialization at the graduate level, e.g., master's degree in tax programs.

The above discussion suggests that the continuing expansion of accounting knowledge will likely require increased specialization in the future. As a result, specialty accounting certification such as the CMA and CIA designations should increase in significance as more practicing accountants desire to demonstrate their competence in accounting subdisciplines. It also appears likely that more specialized training will be provided in university accounting programs, probably at the graduate level.

Graduate Education

The accounting profession appears to be in a state of transition from an entry-level requirement of an undergraduate degree to a requirement of graduate education. This transition has come about slowly and is still meeting significant opposition; however, two factors in particular suggest that pressure for a graduate-level entry requirements is likely to increase in the future. First, accounting practitioners have long supported a liberal undergraduate education for accounting majors. As observed by I.T. Nelson, the leaders of the accounting profession have advocated liberal education since the inception of university accounting programs near the turn of the century.¹⁹

More recently, in their much cited "White Paper," the then Big Eight public accounting firms called for more emphasis on liberal education in accounting.²⁰ This desire reflects the philosophy that well-rounded individuals will be able to function more effectively in the dynamic and complex public accounting environment than individuals with only narrow technical training. Second, the growth of professional and technical knowledge required for accounting practice previously discussed is almost certain to continue in the future with further advances in information technology and increases in the complexity of business operations and transactions.

There is obviously a limit on the number of technical courses that can be added to undergraduate accounting curricula while maintaining a general education base. One solution to this problem would be to remove professional accounting education from undergraduate business schools and require a graduate education similar to

that required for the legal and medical professions.²¹ Actually, the U.S. accounting profession has attempted unsuccessfully to establish graduate or professional education requirements for more than a century.

The seeds of this movement were planted when the American Association of Public Accountants, one of the predecessors of the AICPA, received a two-year charter from the state of New York to operate a professional school for accountants in 1892. However, the

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school was not a success, and the charter was not renewed. This early failure has been attributed to the fact that the body of accounting knowledge had not developed sufficiently at that time to justify such a school.²² Throughout the past century, further attempts to establish a graduate or professional education requirement have surfaced periodically. For example, in 1952, the AICPA's Commission on Standards of Education and Experience recommended that education beyond a four-year undergraduate program be required for certification as a CPA. The AICPA adopted the commission's recommendations with the understanding that, as soon as it was considered feasible, postgraduate study would be required for the CPA license. The need for graduate accounting education was reinforced by the conclusions of various AICPA studies during the 1960s and 1970s, including the Horizons study, the Beamer committee, the Albers task force, and the Cohen commission.²³

One of the most significant impediments to the establishment of a graduate education requirement was the loss of influence of accounting fac-

ulty and changes in promotion and tenure requirements precipitated by the Carnegie and Ford Foundation studies issued during the late 1950s.²⁴ These studies recommended that business school curricula place more emphasis on general management education than technical training and that business research be more rigorous.

The effect of these changes was to move accounting education away from a professional orientation. In an attempt to counter this trend, the AICPA formally endorsed the establishment of separate schools of accountancy in 1973 and began an effort to establish its own accreditation standards for accounting programs that would only accredit five-year degree programs. However, the schools of accountancy movement was largely abandoned in 1978 when, in a tactical move, the American Assembly of Collegiate Schools of Business announced that it would establish separate accreditation standards for undergraduate and graduate accounting programs.²⁵

Realizing that the schools of accountancy movement was not likely to be successful, the AICPA began an attempt to establish a graduate education requirement through other means. It won a significant victory when its members voted in 1987 to require a five-year, or 150 semester-hour, education for AICPA membership, effective in the year 2000. Before and since that time, states have gradually been adopting five-year education requirements for licensure as a CPA. As of this writing, approximately 40 of the 54 licensing jurisdictions had adopted a five-year education requirement.

The accounting profession still faces significant obstacles in its attempt to establish a graduate education requirement. Factors such as decreased state funding for higher education and a public perception that attempts to establish a graduate education requirement are motivated by the self-interests of members of the profession have undoubtedly hampered this movement and will continue to do so in the future.

However, if graduate education becomes the standard for entry to the accounting profession, this should benefit professional accountants as well as society as a whole. The experience of early adopters of a five-year education

requirement has shown that expanded education will enable the profession to attract better quality students. In Florida, where the five-year requirement went into effect in 1983, schools have been forced to raise admission standards to offset the increase in applicants to accounting programs.²⁶ The long-term effects of attracting higher-quality students should be to elevate the status of the profession and the quality of the services provided by its members. This improved status should enable accountants to increase their share of existing markets (e.g., financial planning and management advisory services) and gain a larger share of emerging markets (e.g., the market for assurance on the relevance of financial information).

Looking Ahead

There is reason for optimism about the future of the accounting profession. Information professionals such as accountants will play an increasingly significant role in the developing information society. Thus, there will be many new opportunities for accountants to provide valuable services in the future. Increases in the level of knowledge and skill required to provide such services will likely dictate increased specialization among accountants in the future, as well as an expansion of education requirements. However, these changes should also elevate the status of the profession and improve the quality of the services provided by its members.

The number of professional accountants has grown significantly during the past two decades, and the profession has expanded into emerging service markets such as systems consulting and personal financial planning. If accountants continue to define their social role broadly as information professionals, this growth should continue. Most important, accountants must continue to strive to identify opportunities to serve the public interest by providing socially valuable services. ■

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