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The Ongoing Preparation Gap in Accounting Education: A Call to Action

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Are our colleges and universities adequately preparing accountants for the real world? Perhaps not, the authors say. They have examined 20 years of evidence that strongly suggests that significant gaps exist between what accounting educators teach and what practicing accountants do. In this article, the first of two, they raise provocative questions that they hope will encourage both the academic and business communities to engage in a dialogue about the content and focus of the accounting curriculum.

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What does an accountant do? Few people, other than (perhaps) accountants, really know. In fact, if someone meets an accountant, he or she is most likely to say, "So, you do taxes?" or "You must be a CPA." The reality is that most accountants do not spend their careers preparing tax returns or even in positions that require them to hold the Certified Public Accountant (CPA) certification. The vast majority of accountants spend most of their careers within organizations where they have management accounting responsibilities; serve as trusted advisors, business partners, or consultants; or function as general managers. Given these varied roles, is accounting education appropriately synchronized with the needs of students and employers?

In this article, we present and synthesize 20 years of evidence that strongly suggests that significant gaps exist between what accounting educators teach and what practicing accountants do. We also document how

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little the functional focus of the undergraduate accounting curriculum has changed in recent decades. The second article in this series, which will published in the Summer 2010 issue, focuses explicitly on one aspect of accounting education—management accounting—and illustrates the extent of the synchronization gap that exists.

Our intent is to raise several potentially provocative questions and encourage both the academic and business communities to engage in a dialogue about the content and focus of the accounting curriculum. We do not presume to have definitive answers to the questions we raise. The "right" answers will vary across colleges and universities and also by student. That said, we believe it is important to discuss questions such as:

- Is there an appropriate balance between financial and management accounting in the typical undergraduate curriculum?
- Should we reduce the financial reporting (based on Generally Accepted Accounting Principles (GAAP) or externally focused) emphasis in the undergraduate accounting curriculum and move this emphasis to the graduate curriculum?
- Would a course in internal auditing rather than external auditing represent a better alternative for the student who elects to complete his or her accounting education in a four-year program?
- Is an increased emphasis on business-entity taxation over personal taxation appropriate for the typical undergraduate tax course?
- Should a primary focus of an undergraduate accounting curriculum be on preparing students to function in a management accounting environment for various-sized organizations?
- Should graduate coursework more directly target the skill set needed for the CPA exam and undergraduate coursework focus on the skills required for the Certified Management Accountant (CMA®) or Certified Internal Auditor (CIA) exams?

A Look at the Current Curriculum

The content of and methods of delivering individual courses in accounting programs have changed in recent years. Nevertheless, the primary focus of the accounting curriculum, at least at the undergraduate level, is not much different today from what it was 10, 20, or even 40 years ago. The majority of core undergraduate accounting courses focuses on topics that academics assume students need to work in public accounting and that are necessary or useful for passing the CPA exam. *Is this focus appropriate in a world where students must have at least 150 hours of college work to begin the CPA certification process and the majority of students who exit with only a four-year degree will work inside organizations rather than in public accounting?*

Regardless of where students begin their accounting careers, most of them wind up working in a corporate setting. In 2008, the U.S. Bureau of Labor Statistics reported that more than 75% of accounting professionals work inside organizations and that the remaining work in professional service practice or public accounting.[1] It is critical for schools to provide the appropriate skill sets to help these students function effectively in these internal positions.

For this article, we have chosen to focus on only the undergraduate portion of the accounting curriculum that prepares students for jobs in industry or government, areas where traditional hiring practices target four-year students. Certifications such as the CMA (www.imanet.org), CIA (www.theiia.org), and Certified Government Financial Manager (CGFM) (www.agacgfm.org) each require only a four-year degree to sit for their exam.

Undergraduate programs also provide students with the background coursework they need to enroll in graduate programs in accounting to pursue advanced degrees such as a Master of Business Administration (MBA) or Master of Science (M.S.). This suggests it is important to evaluate whether we should restructure the focus of our undergraduate accounting curriculum, particularly for those students who choose not to immediately pursue a graduate degree or strive to meet the 150-hour requirement to sit for the CPA exam (some jurisdictions allow a student to sit for the exam after 120 hours). In particular, chief financial officers (CFOs) are suggesting that the management accountant should aspire to move from "counter of wealth" and "compliance cop" to "creator of wealth and influencer of strategy."[2]

Our focus is on the accounting curriculum in the United States. Other countries may face a similar syn-

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chronization gap, but a more favorable view of management accounting in developed European countries suggests a less critical situation. As Christopher Chapman, Anthony Hopwood, and Michael Shields explain, "Residing outside the financial accounting mainstream in North American business schools has helped to maintain diversity both directly…and indirectly because this autonomy has increased the influence of less constrained non-North American perspectives."[3]

Recognition of a Synchronization Problem

Synchronization between accounting education and practice has been and continues to be a problem. To give an historical perspective, we present several years of evidence from both the academic and practice communities.

In 1984, the American Accounting Association (AAA) appointed the Committee on the Future Structure, Content, and Scope of Accounting Education (the Bedford Committee) to consider the future of accounting education. In *The Bedford Report—Future Accounting Education: Preparing for the Expanding Profession*, the Committee noted that while all professions change over time, educational institutions frequently fail to evolve as rapidly as professional practice.[4] The Report described how professional accounting practice was changing in public accounting, government, and industry. Tellingly, it noted that, "There is little doubt that the current content of professional accounting education, which has remained substantially the same over the past 50 years, is generally inadequate for the future accounting professional." The Report concluded that the accounting profession was expanding but that the state of accounting education was inadequate to meet its needs. A key problem the Committee identified was the "*growing gap between what accountants do and what accounting educators teach*" [emphasis added].

As a follow-up to the Bedford Report, the AAA established the Accounting Education Change Commission (AECC) in 1993. The AECC issued several position statements. Statement Number 4, "Improving the Early Employment Experience of Accountants," issued in April 1993, noted that several research studies concluded that accounting graduates were unprepared for many elements of career success, such as managing job stress, meeting deadlines, working unanticipated overtime, preparing budgets, and balancing work and family life.[5] In short, accounting educators were not communicating sufficient information about the realities of the profession in a corporate setting and the experiences that students may encounter as they begin their careers. Conversely, students did not appear to be seeking firsthand knowledge of the business world on their own. Thus, graduates' experiences fell short of their expectations for the "real world."

AECC Statement Number 4 addressed the gap identified in the Bedford Report and the underpreparedness of students by recommending that faculty members "acquire and maintain a high level of knowledge about *both practice issues and the nonacademic accountant's workplace*" and that they "*should communicate their knowledge about conditions of practice to their students*" [emphasis added].

In summary, leaders in the academic community recognized a problem almost 25 years ago and issued recommendations to address it. Unfortunately, a concrete action plan was not developed to implement the recommendations. Thus, as we illustrate in a later section, the accounting curriculum, particularly the undergraduate curriculum, at universities across the United States remains very similar to one that existed in 1986, and, according to the Bedford Report, the 1986 curriculum had changed little over the previous 50 years!

Five-Year vs. Four-Year Accounting Programs

Two American Institute of Certified Public Accountants (AICPA) studies conducted during the late 1960s and 1970s were instrumental in the creation of the 150-hour program for the CPA certification.[6] These studies focused on the common body of knowledge and the suggested amount of time needed in higher education to be a successful CPA candidate.

In 1988, the membership of the AICPA overwhelmingly approved an amendment to the organization's bylaws that required membership applicants after the year 2000 to have the equivalent of 150 semester hours and a bachelor's degree. The AICPA is a professional membership association and not a regulatory agency, so

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binding requirements for 150 hours of education had to await passage by state and territorial legislatures. By 2001, 48 of the 55 American licensing jurisdictions had enacted supporting legislation, and the law had become effective in 33 of them. By 2007, the laws were in force in 48 states, with Pennsylvania's effective date coming in 2012.[7]

In their study of 150 accounting education programs, William Shafer and Gregory Kunkel found that "…results indicate that, rather than developing integrated 5-year programs that provide a liberal undergraduate education combined with graduate professional training, most universities have responded to the requirement by simply making master [of] accounting (MAC) or master [of] business administration (MBA) programs available to CPA exam candidates. This approach is inconsistent with the vision of accounting education presented by the original supporters of the extended education requirement."[8] In a 2006 report to the National Association of State Boards of Accountancy (NASBA), Jan R. Williams noted that the last 30 hours of coursework focus simply on meeting the 150-hour requirement rather than on quality education and thus are less integrated and more opportunistic. In some cases, schools took advantage of the opportunity to expand course offerings and increase enrollments rather than develop reformulated programs.[9]

Other professional accounting associations that sponsor certification accept four-year degrees as the appropriate educational requirement. The Institute of Management Accountants (IMA®) requires candidates to possess a bachelor's degree (in any area) from an accredited college or university. Similarly, the Institute of Internal Auditors (IIA) states that CIA candidates must hold a bachelor's degree or its equivalent from an accredited college-level institution.

Concerns from Industry and Corporate America

A study by W. Steve Albrecht and Robert Sack notes how slow universities have been to adapt to changes in the business world.[10] Nevertheless, public accounting firms recognized the problem some 20 years ago. In 1989, the eight largest firms issued a white paper to address their concerns about the quality and quantity of accounting graduates.[11] Consistent with the Bedford Report, the paper described the profession as expanding, changing, and becoming increasingly complex. In the authors' opinion, these changes created a critical need to reexamine the educational process. The paper noted that while curriculum development was the responsibility of the academic community, the intention of the then Big 8 authors was to inform accounting educators about the skills and capabilities needed to be successful accounting practitioners. The study concluded that, "The current environment makes real curricular change essential and necessitates responses from a dynamic partnership between practitioners and academicians."

Around the same time, in the late 1980s and early 1990s, IMA began hearing complaints from financial executives indicating that entry-level accountants were not adequately prepared. More specifically, these executives expressed concerns that students graduating from four-year accounting programs did not have the skills necessary for success as an entry-level corporate accountant. Students, they claimed, did not have a good grasp of topics such as corporate tax, budgeting, or strategic planning and were unfamiliar with the role of accountants in a corporate environment. Moreover, the executives said that increasing competition in their industries made it difficult for them to invest one or two years in training to bring the entry-level accountants up to speed. They wanted their new hires to be able to "hit the ground running" and be productive right away.

IMA's approach to these concerns was to sponsor research that would be useful for the academic community. Together with Financial Executives International (FEI), IMA sponsored a research project titled *What Corporate America Wants in Entry-Level Accountants*.[12] This research confirmed that the complaints of top-level financial executives were shared by a large majority of financial executives in U.S. companies. The findings were posted on IMA's website and were shared with accounting educators at multiple academic meetings in 1994 and 1995.

Another study, *Practice Analysis of Management Accounting*, sponsored by IMA and the AICPA in 1996, documented the work activities performed by management

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accountants and the knowledge, skills, and abilities needed for success as entry-level accountants.[13] The study also described the role that management accountants play in their organizations, the major changes in the nature of the work environment that were occurring in the early to mid-1990s, and the shift from a transactions-based focus to an emphasis on decision support, planning, and control. The results were shared with accounting educators at more than 50 academic meetings, posted on IMA's website, and disseminated through an article in the *Journal of Accountancy*.[14]

Changing Roles of Accounting Professionals

The fundamental nature of the work performed in public accounting practices was evolving during the final decades of the 20th Century. Small businesses seeking to compete in an increasingly complex environment often relied extensively on their outside accountant for financial and functional business expertise. Auditing services commonly were viewed as a commodity, and large public accounting firms focused on expanding their management advisory services to fuel continued growth. This process continued until the financial frauds committed by large companies such as Enron and WorldCom ultimately resulted in the passage of the Sarbanes-Oxley Act of 2002 (SOX).

Within business organizations, the roles management accountants were expected to play also changed. Studies conducted by FEI documented the transition of management accountants from "corporate cop" to "business partner."[15] The term *business partner* is important because it implies that management accountants are critical members of decision-making teams. As a business partner, management accountants have the authority and responsibility to tell an operating executive why particular types of information may or may not be relevant to decision making and are expected to suggest ways to improve decision quality and be a part of planning processes.

Ongoing changes in practice, along with other developments in the evolution of work in corporate America, prompted IMA to conduct a follow-up to its 1996 study. *Counting More, Counting Less: Transformations in the Management Accounting Profession*, a 1999 study, revealed that 80% of the respondents (practicing U.S. accountants from entry-level positions through CFO) were spending more time interpreting information than preparing it.[16] Additionally, the accountants were more involved in decision making than had been indicated in the results of the IMA study conducted five years earlier. They were perceived as adding value to the organization while spending more time communicating business information to nonaccounting professionals or decision makers. Management accountants were becoming key players and, in many cases, leaders on cross-functional teams. Four out of five respondents expected the trend to continue toward more involvement in decision making and key operational activities of the business.

These trends were confirmed in a KPMG International analysis of business finance functions, where results showed that "…new hires are expected to possess different capabilities focusing on softer skills such as communication, relationship management, change management and the ability to work in teams."[17] The KPMG study also indicates that business finance professionals are required to have more sophisticated analytical techniques and to be creative problem solvers.

Findings that IBM reported in 2005 also reflect the shifts in the primary activities of the finance function over time (historical 1999 to projected 2008).[18] Transactional activities declined dramatically from 65% to 34%, control activities increased from 20% to 26%, and decision support and performance management activities moved from 15% to the dominant activity at 40%.

After *Counting More, Counting Less*, IMA conducted additional research in 2002 and 2006 on changes in the profession.[19] The conclusions were similar to those reached by IBM and showed that agile finance organizations are moving to an enterprise-wide view that goes beyond measurement and reporting and to insights about performance, growth, and risk.

Analysis of the Current Curriculum

The reports and studies from the past two decades provided the academic community with clarion calls for change. Studies such as *What Corporate America Wants in Entry-Level Accountants* give the academic community insights into curriculum deficiencies and provide empirical data that could help curriculum

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designers better align the outcomes of education with current professional practice. But have these recommendations truly resulted in significant changes in the accounting curriculum?

To answer this question, we undertook an extensive review of the undergraduate accounting curriculum in U.S. universities. We initially assumed that the resources to make changes were more likely to be available in programs that were accredited by the Association to Advance Collegiate Schools of Business (AACSB) or at schools with larger numbers of accounting faculty. Experience has shown us, however, that individual faculty members often can drive change, especially at smaller schools.

To examine the current undergraduate accounting curriculum, we included three groups of schools in our study:

- All schools that have AACSB accounting accreditation,
- AACSB-accredited schools without accounting accreditation that have 10 or more accounting faculty, and
- A random sample equal to 20% of the remaining U.S. accounting programs listed in the 2003-2004 Hasselback Directory.[20]

This very large sample was designed to make it likely that we would identify the majority of U.S. schools that had changed their accounting curriculum. Overall, our study includes 408 of 700 (58.3%) listed schools and 287 of 452 (63.4%) AACSB-accredited programs. An analysis of the results (as reported next) when categorized in a different manner—such as whether a program is accredited or nonaccredited or is large or small—showed only limited variation. Thus, we report results from the overall study group only.

We gathered information about required and elective undergraduate accounting courses for accounting majors from university, college, and departmental websites. Table 1 presents summary results for the study group of 408 schools. Almost all schools have several required undergraduate accounting courses. For example, in Table 1, the "required" column shows that 88.5% of the reviewed accounting programs require students to complete at least one tax course, and 97.1% require Intermediate Accounting I.

A course is designated a "core elective" if students must select a preset number of accounting classes from a small list of choices. At one school, for example, students must take two of three classes (Advanced Accounting, Management Accounting II, or International Accounting), making each of these courses a core elective. As shown in Table 1, Accounting Systems is a core elective in 5.9% of the programs.

The "available elective" classification is used when a student has a significant choice of additional accounting electives. For example, a student may be required to choose one of six accounting electives and have the option of taking one additional accounting course as part of his or her business electives. Courses with the title Advanced Accounting are an available elective in roughly one in four programs. When a course was not listed as an available accounting major course or the Web-based search for content was inconclusive, we used the "not offered or unsure" column. In slightly less than 20% of the sample, courses related to Accounting Systems fell into this category.

Schools use a variety of names for courses, such as Intermediate Accounting I or Cost/Managerial Accounting, so we reviewed the catalog description when course names varied. If a course identified as Financial Reporting I included content that appeared similar to that offered in Intermediate Accounting I, we classified it in the Intermediate Accounting I category. Likewise, for the overall analysis we did not distinguish whether the first tax course was focused on individual taxation or included a business-entity focus. In a small number of cases, the content of courses appeared significantly different and consequently was classified in the "other" category.

A Closer Look at the Data

Table 1 indicates that most accounting programs require students to complete two intermediate accounting courses along with one cost/managerial accounting class and one tax course. A substantial but smaller majority of programs require Auditing and Accounting Systems, while 40% make Advanced Accounting mandatory. These are the only accounting courses (beyond Introductory Accounting Principles)

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Table 1: **Undergraduate Accounting Course Requirements and Available Electives (408 schools)**

Course	Required	Core Elective	Available Elective	Not Offered or Unsure	Other	Total*	Required + Core Elective
Intermediate I	97.1%	0.5%	0.2%	0.5%	1.7%	100.0%	97.6%
Intermediate II	93.6%	1.2%	1.0%	2.9%	1.2%	100.0%	94.8%
Cost/Managerial	90.5%	4.2%	2.2%	2.0%	1.2%	100.0%	94.7%
Tax	88.5%	6.1%	2.7%	1.2%	1.5%	100.0%	94.6%
Audit	77.8%	7.6%	6.6%	3.2%	4.9%	100.0%	85.4%
Systems	65.8%	5.9%	7.1%	19.8%	1.5%	100.0%	71.7%
Advanced	40.6%	14.7%	24.2%	20.5%	0.0%	100.0%	55.3%
Intermediate III	12.7%	1.0%	2.7%	83.6%	0.0%	100.0%	13.7%
Not-for-Profit	10.5%	14.2%	32.5%	42.3%	0.5%	100.0%	24.7%
International	1.7%	5.6%	21.8%	70.9%	0.0%	100.0%	7.3%
Managerial II	8.3%	12.2%	28.9%	49.9%	0.7%	100.0%	20.5%
Audit II	2.0%	2.2%	21.5%	74.1%	0.2%	100.0%	4.2%
Tax II	8.3%	14.4%	38.4%	38.6%	0.2%	100.0%	22.7%
Systems II	2.4%	2.2%	10.5%	84.6%	0.2%	100.0%	4.6%
Theory	5.1%	1.2%	13.9%	79.5%	0.2%	100.0%	6.3%
Statement Analysis	1.0%	1.2%	8.1%	89.5%	0.2%	100.0%	2.2%
Other	8.8%	7.8%	49.4%	32.3%	1.7%	100.0%	16.6%

*Totals in each row may not always equal 100% because of rounding.

Required: Accounting majors must take these as part of an undergraduate program.

Core elective: An accounting elective that must be selected from a small set of choices (such as two of three courses).

Available elective: An accounting elective available to students that may be selected from a list of courses (such as one of six).

Not offered or unsure: The class either is not offered in the undergraduate program or Internet information did not allow us to determine if the class were available.

Other: A class description in the course area that was very different from the traditional course description.

required at more than 10% of the sample schools. For purposes of this discussion, we designated these seven courses as "core courses." Table 1 also shows that a substantial portion of the undergraduate accounting programs do *not* offer the option of courses such as International Accounting (71%) or a second managerial accounting class (50%).

In terms of synchronizing the curriculum with market demands, we question whether the mix of courses remains the most relevant and logical one in the current environment. At professional conferences, we spoke with many faculty members who graduated more than 20 years ago and learned that the typical set of required undergraduate courses in their programs included two intermediate accounting classes, along with a cost, tax, and audit course. A manual accounting systems or accounting process course was often a highly recommended elective, and most programs offered a government or a specialized industry accounting course.

What this analysis reveals is that the *required courses* found in the typical undergraduate accounting curriculum today look very much like they did decades ago in

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Table 2: Nature of "Core" Accounting Courses

Core Courses: 1960s and 2006	Course Focus and Comments
Intermediate Accounting I & II	● Courses that focus on external financial statement reporting requirements and a detailed analysis of the major financial reporting rules issued by standards-setting bodies. Rule complexity, with all the Accounting Principles Board (APB) opinions and Financial Accounting Standards Board (FASB) standards, has expanded exponentially. As a result, textbook length has basically doubled. Some programs have an Intermediate III course. ● Textbooks used in these courses are commonly built around the balance sheet. The basic content of these courses has changed primarily to reflect new reporting complexities, but the major book sections remain remarkably the same.
Cost/Managerial Accounting	● The content focus until the 1990s was almost exclusively on manufacturing and on providing information for decision making by top-level managers. Limitations in information systems resulted in a focus on tools that used simple classification, such as fixed and variable cost. ● Recently there has been a dramatic expansion in the information tool set available for cost and management accountants. Topics such as activity-based costing, customer profitability, and capacity are emerging. Even with the addition of more emergent topics, these courses continue to have a strong focus on manufacturing and emphasize traditional costing tools. ● About half the programs now include a second cost/management course as an optional part of the undergraduate curriculum.
Tax Accounting	● The basic tax course remains primarily focused on individual taxation, although there is growing focus on business entities as demonstrated by reviews of course descriptions. ● More programs are making a second tax option available as an undergraduate elective. ● Graduate tax programs or specialties are common within 150-hour programs.
Auditing	● This course typically focuses on the attest function and the rules and procedures that comprise assurance of external financial statements. ● There is a growing emphasis on ethical issues and the importance of strong internal accounting systems, but relatively few programs emphasize internal audit issues in the required audit course.
Advanced	● This course traditionally focuses on consolidation and partnership issues in the context of external financial reporting. It is often an elective course. ● Government accounting (and some international accounting) is a component of some of these courses and a separate elective in other programs.
Accounting Systems	● This course has evolved from a manual system to a technology-oriented course or is a newer addition to many programs. In recent years, a process-based focus has begun to take precedence over a transaction-based focus. An internal control and process documentation focus is becoming more important in response to SOX. ● There is considerable variability in course focus. The courses may be taught from an internal controls perspective and/or with a database/REA approach. Systems courses are sometimes taught outside the accounting curriculum through an information systems department, which could lower the percentage of required accounting systems courses.
Other Accounting Courses	● There are a variety of other courses offered within undergraduate programs. A significant number of schools have a second cost/managerial course or a second tax course. Many programs have international accounting, financial reporting, and second audit courses or courses that focus on orientation to the profession. ● Ethics courses are a part of many programs but often are not taught as accounting classes. These types of courses were excluded from our analysis of the current curriculum.

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terms of their functional focus. Systems has seemingly supplanted Advanced as the sixth required core course, and Auditing does not seem to be as universally required as it once was, but functionally little else has changed.

Although the titles and focus of required accounting courses essentially remain constant, the content certainly has evolved. Table 2 reflects general impressions based on our long experience (100-plus years) with these courses and discussions with accounting faculty at multiple professional conferences.

Have Course Content Changes Made Synchronization a Reality?

An issue central to our study is whether content changes in the core accounting courses have been substantial enough to synchronize what students are taught in their undergraduate accounting programs with what they need to function effectively in the professional world. *The examples below and in our second article illustrate why we believe it is unlikely that appropriate synchronization exists.* Additional study would almost certainly identify many more examples of misalignment. More importantly, these examples show the need for discussion and debate regarding both the content and focus of the undergraduate accounting curriculum.

Some recent changes are obvious: For one, the number of pages in intermediate accounting textbooks has increased dramatically with the proliferation of new accounting standards. Many of these standards are primarily applicable to large, publicly traded firms—with complex financial structures—that are striving to meet shareholder expectations. Small firms have increasingly abandoned GAAP for alternative financial reporting rules, and midsize firms following GAAP are less likely than large firms to have major issues with pension plans, tax allocation, earnings per share, comprehensive income, complex leases, specialized financial instruments, and so forth.[21] How will students who exit our accounting programs with an undergraduate degree be adequately prepared to deal with this changing landscape?

In the cost/managerial area, research shows that there have been dramatic changes in the role of the management accountant as an information provider (and decision maker) inside organizations, particularly in large, complex entities, and that there has been a major restructuring of tools available to help internal decision makers. As summarized in our second article, however, there continue to be significant disconnects between course content and topics that companies indicate are important in areas such as long-term strategic planning and customer profitability analysis, to name a few.

In the tax area, research we cite later indicates an overemphasis on individual taxation and an underemphasis on business taxation. Our curriculum review shows that there may be a trend toward offering a business tax course at the undergraduate level, but individual taxation remains the dominant focus. Likewise, auditing courses remain primarily focused on external rather than internal auditing. A small number of programs have either dropped auditing as a required undergraduate course or have refocused the course on internal auditing. The trends in tax and auditing, if confirmed, would be consistent with improving synchronization for the student who may not be concerned with meeting the 150-hour requirement but who chooses to enter the job market with a four-year degree.

The systems courses that currently exist are focused in many different ways. Part of this diversity is related to differing perceptions of what is appropriate for students in this area. As noted in Table 2, there is likely to be a growing control focus because of SOX. This change may be a further positive step toward synchronizing practice and academic content.

Going Forward

The 2005 AICPA report, *The Supply of Accounting Graduates and the Demand for Public Accounting Recruits*, indicates where accounting graduates begin their careers.[22] Table 3 includes data from the report and shows that 62.6% of accounting graduates in the United States from 1999 to 2004 began their careers in industry and other nonpublic accounting areas.[23] The 2009 AICPA report, *Trends in the Supply of Accounting Graduates and the Demand for Public Accounting Recruits*, indicates that 54.7% of graduates in 2007-2008 started their careers in areas other than public accounting.[24] If an estimated cumulative turnover rate of 50% is applied to total public

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Table 3: **Analysis of Accounting Graduates Entering Industry or Other Careers from 2000 to 2004**

Year	Total Number of Graduates	Public Accounting Hires	Industry Hires and Others	Industry Hires/Others as % of Total Graduates
1999-2000	45,095	20,951	24,144	53.5%
2000-2001	46,555	16,370	30,185	64.8%
2001-2002	44,695	15,925	28,770	64.4%
2002-2003	49,665	16,825	32,840	66.1%
2003-2004	53,760	19,705	34,055	63.3%
1999-2004 Totals	239,770	89,776	149,994	62.6%
2005-2006*				
2006-2007**	64,221			
2007-2008	66,459	30,081	36,378	54.7%

Source for 1999-2004: American Institute of Certified Public Accountants, *The Supply of Accounting Graduates and the Demand for Public Accounting Recruits–2005*, AICPA, New York, N.Y., 2005.

Source for 2006-2008: American Institute of Certified Public Accountants, *2009 Trends in the Supply of Accounting Graduates and the Demand for Public Accounting Recruits*, AICPA, New York, N.Y., 2009.

*Complete data for 2005-2006 was not available from the 2009 AICPA report.
**Complete data for 2006-2007 was not available from the 2009 AICPA report.

accounting hires staggered over the 1990-2004 period, the number of graduates in industry and other careers grows to an average of 73%.[25]

Earlier we summarized ongoing evidence suggesting that gaps exist between what accounting educators teach and what practicing accountants do on the job. We have also shown that there has been little change in the focus of the undergraduate accounting curriculum even as the 150-hour requirement to sit for the CPA exam has become almost universal. As the placement statistics cited above show, a large majority of accounting graduates begin or quickly migrate to careers outside public accounting. This raises the following questions:

- What level of synchronization exists between the accounting curriculum and the knowledge needs of accountants who begin their careers (or quickly migrate to careers) in industry and other nonpublic accounting areas?
- Is the academic preparation provided by the accounting curriculum, particularly at the undergraduate level, appropriate for accounting careers in industry and other nonpublic career paths?

In our second article, we focus more attention on what accountants do in the real world and review studies in the management accounting area that provide several specific examples of gaps that exist in just one portion of the accounting curriculum. This review will allow us to discuss some of what we should teach our students, particularly in management accounting. More important, we will use the evidence provided in these two articles to encourage industry and the academic community to seriously address the ongoing synchronization problem. ■

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