

THE PRACTICE ANALYSIS OF MANAGEMENT ACCOUNTING

Results of Research

March 1996

**Project Director
Gary Siegel, Ph.D.**

**A Research Project of the
Institute of Management Accountants**

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DEDICATION

The Practice Analysis of Management Accounting is dedicated to the memory of Dr. James Bulloch, CMA, CPA, who passed away in 1995. Dr. Bulloch, a committed accounting educator and management accountant, served as the IMA's Managing Director of Professional & Technical Services and strongly believed in IMA's efforts to improve accounting education. He was instrumental in launching the Practice Analysis and, as long as his health permitted, was involved in the operation of the project.

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Foreword

In August 1994, shortly after the release of the IMA/FEI-sponsored research project, *What Corporate America Wants in Entry-Level Accountants*, the IMA and FEI, in a joint statement on accounting education, concluded that accounting education programs must be restructured to respond to the needs of their corporate customers. They pledged to work with corporate and academic America on these issues.

To fulfill that pledge, in 1995 IMA initiated a multiphased action plan. The plan would lead to the development of accounting curricula that prepare people for careers in management accounting by giving them skills needed by corporate America. As part of the plan, the Institute of Management Accountants commissioned The Practice Analysis of Management Accounting to identify corporate accountants' work activities and the knowledge, skills, and abilities (KSAs) necessary for competent performance. It also would anticipate changes in the nature of the work over the next few years.

The Practice Analysis reflects the shift from number cruncher and corporate cop to decision-support specialist and reflects what it takes to compete in today's lean, global, technologically driven environment.

The practice analysis is not a definitive basis for the development of curricula in isolation. Rather, it is a powerful tool that will help individuals and organizations, whether corporate or academic, to analyze and develop programs that meet their needs. It is a solid basis for corporations in the development of skills-based training programs. The Practice Analysis will also be used by the IMA Board of Regents to modify the content specifications of the Certified Management Accountant (CMA) examination.

The Practice Analysis provides a comprehensive database of information about the KSAs necessary for the practice of management accounting. Only the user's ability to analyze and evaluate the data extracted will limit the applications. We urge both corporate and academic America to use the Practice Analysis within their own environments and as partners to close the preparation gap between what is taught and practiced. It will make us all more competitive.

We would also urge leading professional and education associations such as IMA, FEI, AICPA, SMAC, FMAI, IIA, AAA, ACBSP, AECC, AACSB and AGA to disseminate the results of the Practice Analysis to their membership and encourage them to become personally involved at the local level in the newly formed partnership between corporate and academic America.

We are grateful to the IMA Practice Analysis Project Committee and the IMA-Sponsored Consortium for Accounting Education Improvement members for their efforts and counsel.

Finally, we would like to thank Gary Siegel and the research team. Their professional experience, coupled with their intense personal interest and dedication, have helped us achieve a truly world-class Practice Analysis of Management Accounting.

This Practice Analysis is the researchers' compilation of responses and, as such, is intended to be used as a resource. It is not the intent of the IMA, the IMA-Sponsored Consortium for Accounting Education Improvement, or the Project Committee to advocate a specific core curriculum. It is merely providing information that supports the development of accounting curricula with a strong management accounting focus.

C. S. "Bud" Kulesza
Senior Vice President and Controller - ITT Automotive

Preface

In the early 1990s the leadership of the Institute of Management Accountants began hearing what was soon to become a familiar refrain. Financial executives were increasingly concerned about the academic preparation of new accounting hires who were taking as much as a year to 18 months to become productive. Businesses simply couldn't afford to wait that long.

To help meet its members' needs for better-prepared entry-level accountants, IMA, in conjunction with the Financial Executives Institute, conducted a major research project in 1994 to determine what corporate America expected in entry-level accountants and how well those expectations were being met. The research discovered a significant gap between expected and actual skills.

To close that gap would require major change in accounting curricula. Curriculum change, however, was in the domain of accounting educators, not IMA.

IMA recognized that the solution to the dilemma could be found only in cooperative exchange between corporate America and academic America. Consequently, IMA initiated an ambitious, multiphase plan to bring the two groups together to promote discussion and a plan of action. The centerpiece of the plan needed to be a thorough analysis of the practice of management accounting, upon which change in education could be based.

The Practice Analysis of Management Accounting is intended to give academic America a tool it needs for curriculum change. The Practice Analysis documents the work that management accountants perform, as well as the knowledge, skills, and abilities necessary for competent performance. It also anticipates the work that management accountants will perform in the future.

Academic and corporate America now have a massive database of current management accounting practices which can be used in a variety of ways by universities and corporations.

Few professional associations go to such lengths to meet their members' needs. IMA has taken a leadership role in the effort to encourage change in the nature of management accounting education and to improve the preparedness of entry-level accountants seeking corporate employment. IMA's contribution to corporate employers and accounting students, as well as to the U.S. economy, should make itself felt in profound ways in the next century.

Gary Siegel

THE PRACTICE ANALYSIS OF MANAGEMENT ACCOUNTING

AN IMA RESEARCH PROJECT

SUMMARY

PURPOSE OF RESEARCH

The purpose of this research, sponsored by the Institute of Management Accountants (IMA) and conducted by the Gary Siegel Organization (GSO), was to document the work of corporate accountants and financial managers. Specifically, this research was designed to:

- Identify the work activities currently performed by corporate accountants and the knowledge skills and abilities (KSAs) necessary for competent performance.
- Anticipate changes in the nature of work over the next 2-to-5 years.

OVERVIEW OF RESULTS

The Practice Analysis achieved its objective. Detailed information about the work of management accountants has been collected and stored in a database that can be easily accessed by interested users.

The Practice Analysis developed comprehensive lists of work activities and KSAs that delineate the scope of management accounting and the competencies necessary to perform the work effectively.

Practicing management accountants, from entry-level to CFO, reported their level of involvement with each work activity and the importance of each KSA to their work.

THE PRACTICE ANALYSIS OF MANAGEMENT ACCOUNTING AN IMA RESEARCH PROJECT

The Practice Analysis captured the essence of management accounting practice in a format that can be applied by:

- Accounting educators to course development and curriculum design.
- CPE providers to prepare appropriate course material for various segments of management accountants, and to better target their communications.
- Human resource professionals and corporate training departments to skills-based training programs, skills-based recruitment, and job descriptions.
- The IMA Board of Regents to update the content specifications of the CMA examination.

BACKGROUND

The 1994 IMA/FEI research project, *What Corporate America Wants in Entry-Level Accountants*¹, confirmed what many in corporate America had been saying: accounting graduates are not well prepared for work in corporate settings. The study found a sizable gap between the skills that corporate executives expect in entry-level management accountants and the skills that entry-level accountants bring to the job.

The obvious question raised by the 1994 research was: What skills are actually necessary for work in management accounting?

IMA pledged to work with corporate America and academic America to answer this question, and to develop solutions to the problems identified in the research. IMA developed a four-part action plan to encourage change in accounting curricula so as to better prepare people for careers in management accounting. The plan includes:

- *Corporate-academic conferences* to bring together accounting educators and their corporate customers to discuss mutual needs.
- The *IMA-Sponsored Consortium for Accounting Educational Improvement*, a profession-wide educational interest group whose members belong to the major professional accounting associations and college-level educational and accreditation organizations.
- *Academic and corporate communications* to exchange curriculum-related information and build bridges between corporate America and Academic America.
- *The Practice Analysis of Management Accounting* to document the work performed by corporate accountants.

¹ Gary Siegel and James E. Sorensen, *What Corporate America Wants in Entry-Level Accountants*, Institute of Management Accountants, Montvale, NJ: 1994. The research results were summarized in the September 1994 issue of *Management Accounting*, pp. 26-31.

WHAT IS A PRACTICE ANALYSIS?

A practice analysis is the study of work. Typically conducted by professional associations or human resource firms, practice analyses collect information about the tasks or activities that people perform on their jobs, the competencies or skills necessary to do their work, or critical incidents that a job incumbent might encounter at work.

This information is used for a variety of purposes including developing or verifying professional and licensing examinations, writing job descriptions, designing educational and training materials, and developing performance evaluation standards.

A practice analysis is usually a massive research project. An enormous amount of data has to be collected, organized, sifted, reorganized, analyzed, summarized, and reported.

RESEARCH METHODS

We wanted the Practice Analysis to provide work-related information about “typical” or representative U.S. corporations, as well as information about corporations that are leading the changes in management accounting and financial management practices; about entry-level, middle-level, and senior level corporate accountants; and about work being done today and work that corporate accountants could expect to be doing in the next 2-to-5 years.

To accomplish these objectives, we collected both qualitative and quantitative data. The qualitative phase consisted of in-depth, in-person interviews with management accountants at nine companies, most of which are at the leading-edge in management accounting practice. These interviews, conducted in the environment where management accountants work, helped us more fully understand what people do, how the work is changing, and where the profession is heading.

For the quantitative phase, information was collected from self-administered questionnaires sent to a random sample of approximately 4,000 management accountants at all organizational levels (e.g., from entry-level to CFO). The sample was drawn from the membership rosters of IMA, American Institute of CPAs (AICPA), Financial Executives Institute (FEI), and Institute of Internal Auditors (IIA).

**THE PRACTICE ANALYSIS OF MANAGEMENT ACCOUNTING
AN IMA RESEARCH PROJECT**

To ensure content validity, questionnaire items were reviewed by the IMA Practice Analysis Project Committee and by members of the IMA-Sponsored Consortium for Accounting Education Improvement. All work-related terminology and work descriptions were reviewed by both IMA and AICPA committees consisting of practicing management accountants. We asked accounting educators to assess the relevance of the information we planned to collect. Finally, questionnaires were pretested to verify that people understood the questions and were willing to complete a lengthy document.

Nearly 800 completed questionnaires were returned, for a response rate of 20%. We made every effort to increase the response rate. In September 1995, prior to the mailing of the questionnaires, all respondents were informed about the research in a letter signed by the IMA executive director and the FEI president. The letter emphasized the importance of the research and urged respondents to cooperate when they received the questionnaire in the mail. The questionnaires mailed to the IMA and FEI samples included a cover letter, signed by the IMA executive director and the FEI president, urging cooperation. Questionnaires mailed to the AICPA and IIA samples included two cover letters: the first on AICPA or IIA letterhead, respectively, and the second signed by the IMA executive director and the FEI president. Finally, in late November and early December 1995, telephone calls were made to nonrespondents urging them to cooperate.

The quality of response was excellent. People answered all the questions, and judging from their response patterns, seriously considered the choices before answering. Given the large number of people who actually responded, the diversity of their responses, and the congruity between the qualitative and quantitative results, we believe that the Practice Analysis accurately reflects the work of corporate accountants in the mid-1990s.

More detailed information about research methods is in Appendix A. The interview guide used for the in-person interview is shown in Appendix D. The Practice Analysis questionnaire is in Appendix C; selected verbatim respondent comments to the questionnaire are in Appendix E. These appendices are available in the complete Practice Analysis report, which, along with the Practice Analysis database, can be downloaded from IMA's Home Page on the Rutgers Accounting Web on the Internet (<http://www.rutgers.edu/accounting/raw/ima>).

WORK ACTIVITIES AND KSAs

Definitions

In reviewing the practice analyses conducted by other occupational and professional groups, we encountered a variety of terms used to describe the work that people do.

For this project the research team adapted the terminology developed in the 1984 *Practice Analysis of the CPA Profession*.² Work activities are defined as the functions performed by people in their roles as management accountants. Duties and tasks are considered to be subsets of work activities.

Rather than focus on knowledge, skills, and abilities (KSAs) as separate and distinct classifications, we recognized the overlap among them and considered KSAs as one bundle of necessary talent -- as the *competencies* required for successful performance of the work activities. These competencies, or proficiency areas, include an understanding of technical information, the ability to apply it in appropriately, and an awareness of the limitations of technical information for solving problems. The KSAs also include the ability to recognize problems, make sound decisions, get along with people, and express ideas both orally and in writing.

Identifying Work Activities and KSAs

We developed a list of 30 work activities that describes the broad functions performed by management accountants (see Chapter 1 in the Practice Analysis report). These work activities are clustered in nine general categories:

General accounting	Management and cost accounting
Business planning	Business analysis and decision making
Control	Treasury and cash management
Business taxation	Organizational change and development
Professional and civic activities.	

² Report of the Practice Analysis Task Force, Gary Siegel, Project Director, American Institute of CPAs, New York, 1984. (The AICPA completed another practice analysis in 1991 and is planning to launch another in 1996-97.)

**THE PRACTICE ANALYSIS OF MANAGEMENT ACCOUNTING
AN IMA RESEARCH PROJECT**

We also developed a list of 162 KSAs (see Chapter 2 in the Practice Analysis report) clustered in the following categories:

Interpersonal and analytical skills	Professional literature
Management and cost accounting	Financial accounting
Financial management	Internal auditing
Income taxes	Legal environment
Computer systems and operations	Quantitative methods
International	Economics, marketing, management, operations, and behavioral science.

To ensure that our lists would be useful to accounting educators and would completely capture the main elements of work, we solicited the advice of curriculum experts (CEs) and subject matter experts (SMEs).

We interviewed 20 curriculum experts at colleges and universities across the country to learn their views about the relationship between curriculum and practice. We asked the CEs to address the following:

- What work-related information would be most useful to an accounting educator who designs courses and curricula?
- For the purposes of curriculum design, how broadly or narrowly should work activities and KSAs be defined?
- What information should be collected about work activities? That is, what information is most relevant for curriculum design?
- What information should be collected about knowledge, skills and abilities?

Based on their responses, interim lists of work activities and KSAs were developed.

Next, the lists of work activities and KSAs were independently reviewed by two groups of subject matter experts: 1) members of the IMA Committee on Management Accounting Practices and 2) members of the AICPA Management Accounting Executive Committee. After several iterations, the lists were finalized.

The completed lists were then sent to another group of accounting educators to determine if they would use the information we planned to collect.

The final test for completeness of the work activity and KSA lists was the pretesting of the Practice Analysis questionnaire.

Based on the input we received from the SMEs, CEs, accounting educators, and the pretest, we are confident that the work activities and KSAs are comprehensive indicators of the work performed and the skills required of management accountants in the mid-1990s.

Information Collected

The Practice Analysis questionnaire asked the following of each respondent:

For work activities:

- How frequently you engaged in the work activity during the past year.
- How much time you spent doing the work activity.
- Your level of involvement (performance or review) in the work activity.
- Whether you think the importance of this work activity will increase, stay the same, or decrease in the next 2-to-3 years.

For each KSA:

- Its importance to the performance of your work (rated on a 1-5 scale).
- The extent to which an entry-level accountant needs to be competent in that KSA (rated on a 1-5 scale).

DISCUSSION OF RESULTS

What Management Accountants Do

Management accountants engage in a wide variety of work activities. Not surprisingly, the work they do differs depending on a number of factors such as position in the firm, years of experience, and size of company. In some companies, management accountants engage in traditional accounting work (cost accounting systems, financial reporting, resource management, etc.) while in others they engage in activities that are relatively new to the profession (internal consulting, process improvement, customer and product profitability, etc.).

Some work activities are performed more frequently than other work activities. Figure 1 shows the most frequently performed work activities. Each of these was performed on a daily basis by at least 10% of the respondents. The numbers on the bars refer to the percentage of respondents who perform that work activity on a daily basis.

**THE PRACTICE ANALYSIS OF MANAGEMENT ACCOUNTING
AN IMA RESEARCH PROJECT**

**Figure 1
Most Frequently Performed Work Activities**

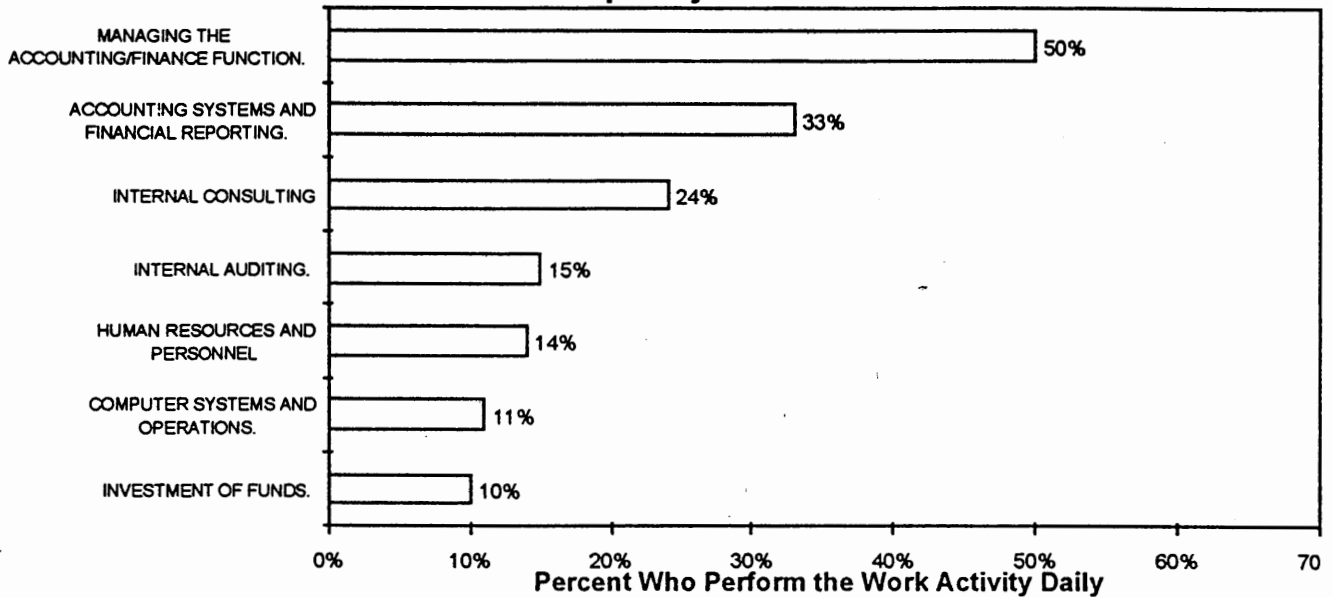
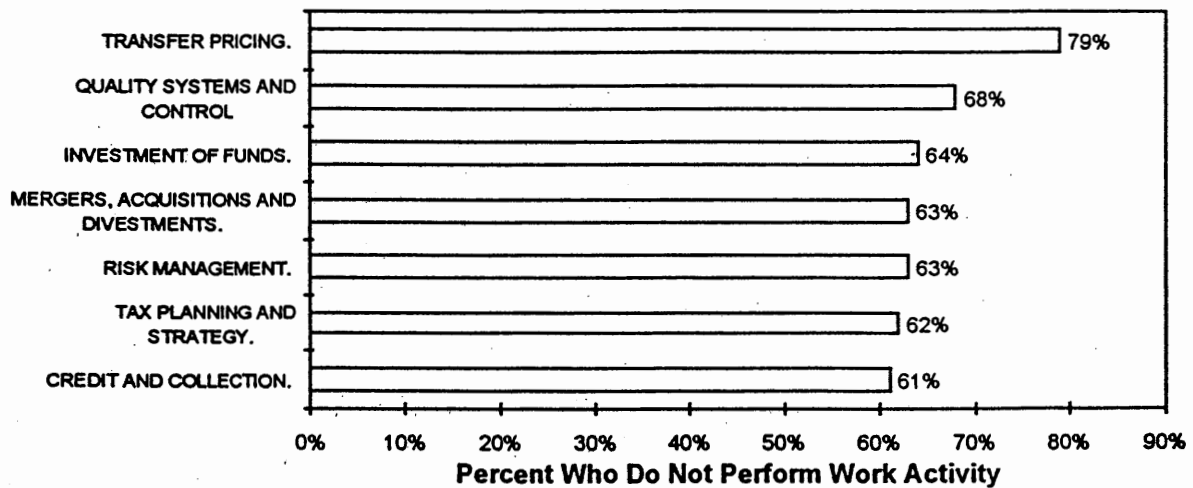


Figure 2 shows the least frequently performed work activities. At least 60% of the respondents report that they did not perform these work activities during the past year.

**Figure 2
Work Activities Never Performed**



**THE PRACTICE ANALYSIS OF MANAGEMENT ACCOUNTING
AN IMA RESEARCH PROJECT**

Interestingly, "investment of funds" appears as both one of the most frequently performed and one of the least frequently performed work activities. This suggests that this work activity is a specialized function performed frequently by relatively few management accountants.

Other ways to gauge frequency of work include rank ordering work activities by weekly or monthly performance, by the percentage who actually perform the work activity, and by the amount of time spent on the work activity when it is performed.

The frequency with which a work activity is performed is not necessarily an indicator of how critical the work is perceived to be. After answering questions about all 30 work activities, respondents were asked to review the list and indicate, from those work activities they engage in, which five are most critical to company success. The most frequently mentioned work activities are shown in Table 1. The "number" indicates the number of people who identified the work activity as one of the five most critical. The "percent" indicates the percentage of all respondents who identified that work activity. The total percent exceeds 100 because respondents could name up to five work activities.

**Table 1
Most Critical Work Activities**

WORK ACTIVITY	Number	Percent
Accounting systems and financial reporting	376	47%
Long-term strategic planning	258	32%
Managing the accounting/finance function	227	29%
Internal consulting	215	27%
Short-term budgeting process	202	25%
Perform financial and economic analysis	197	25%
Process improvement	189	24%
Computer systems and operations	170	21%
Performance evaluation	164	21%
Customer and product profitability	141	18%
Cost accounting systems	129	16%
Internal auditing	114	14%
Project accounting	103	13%

In many companies, entry-level management accountants spend some time working in the internal audit function as part of their orientation to the work environment. In other companies, work in the internal audit function may be perceived as a separate career track. Therefore, users of the Practice Analysis database may want to perform separate analyses based on the responses of a) people who were drawn from the IMA, FEI, and AICPA lists and b) those who were drawn from the IIA list.

KSAs

Respondents rated the importance of each KSA to the competent performance of their work as a corporate accountant. They used a 1-to-5 scale, where one is not at all important and five is very important. Table 2 lists the KSAs that were rated with mean scores of 4.0 or above.

**Table 2
Most Important KSAs for Work**

KSA	Mean
Work ethic	4.67
Analytical/problem-solving skills	4.66
Interpersonal skills	4.64
Listening skills	4.58
Use of computerized spreadsheets	4.51
Understanding the business	4.48
Understanding bottom-line implications of day-to-day business & accounting decisions	4.44
Writing skills	4.32
Familiarity with business processes	4.32
Relationship between balance sheet, income statement, & cash flow statement	4.31
Leadership skills	4.30
Understanding/preparing financial statements	4.29
Accounting system: The "books," cost flows, double entry, etc.	4.25
Use of computerized accounting systems	4.22
Interpreting or analyzing financial statements	4.19
Measurement, valuation, & presentation of revenue & expenses	4.17
Accruals & deferrals, adjusting & closing entries	4.15
Speaking/presentation skills	4.11
Information needs of internal customers	4.03

The highest-rated KSA is "work ethic"; it has an average importance rating of 4.67. Fully 64% of the respondents rated it with a score of 5. This suggests that commitment to work in a management accounting/corporate environment is critical. One indicator of this commitment is that respondents work 48 hours per week on average (mean).

Besides work ethic, the highest-rated KSAs encompass communication and problem-solving skills, understanding the business, and the basics of accounting.

Back to Basics

The qualitative and quantitative results both clearly indicate that management accountants are expected to have a thorough knowledge of basic accounting. Beyond these basics, management accountants need excellent communication and interpersonal skills, analytical skills, and computer spreadsheet skills. This essential knowledge is part of the minimum requirement for work in management accounting.

Entry-Level Competence

Respondents used a 1-to-5 scale to indicate the extent to which entry-level accountants need to be competent in each KSA. On this scale, one indicated not at all competent and five indicated very competent. Table 3, below, shows the KSAs that received mean competency scores above 3.0.

**Table 3
Highest-Ranked KSAs for Entry-Level Competence**

KSA	Mean
Work ethic	4.56
Listening skills	4.15
Accounting system: the "books," cost flows, double entry, etc.	4.04
Use of computerized spreadsheets	4.03
Analytical/problem-solving skills	3.98
Accruals & deferrals, adjusting & closing entries	3.97
Relationship between balance sheet, income statement, & cash flow statement	3.86
Interpersonal skills	3.82
Mathematics through college algebra	3.75
Understanding/preparing financial statements	3.70
Writing skills	3.69
Measurement, valuation, & presentation of revenue & expenses	3.53
Use of computerized accounting systems	3.52
Codes of professional ethics	3.51
Measurement, valuation, & presentation of assets & equities	3.41
Interpreting or analyzing financial statements	3.34
Communication processes; deterrents to effective communication	3.22
Information needs of external users of financial statements	3.20
Professional standards for accounting, auditing, reporting, etc.	3.19
Measurement, valuation & presentation of cash flow statement	3.16
Purpose & use of management information systems in business	3.16
Speaking/presentation skills	3.13
Basic statistics: means; standard deviations; probability; sampling; hypothesis testing	3.08
Internal control systems	3.05
Understanding bottom-line implications of day-to-day business & accounting decisions	3.03
FASB statements	3.01

**THE PRACTICE ANALYSIS OF MANAGEMENT ACCOUNTING
AN IMA RESEARCH PROJECT**

The following six KSAs are included in the 10 highest-ranked KSAs for both importance to work and entry-level competence. They could be viewed as the common ground for anybody working as a management accountant:

- Work ethic
- Listening skills
- Use of computerized spreadsheets
- Analytical/problem-solving skills
- Relationship between balance sheet, income statement, & cash flow statement
- Interpersonal skills

If we ignore communications and other non-accounting KSAs and consider the rank-order of only the accounting KSAs, Table 3 confirms that entry-level accountants need to be proficient in the fundamentals of accounting. The highest-ranking accounting KSAs are, in fact, the fundamentals of accounting:

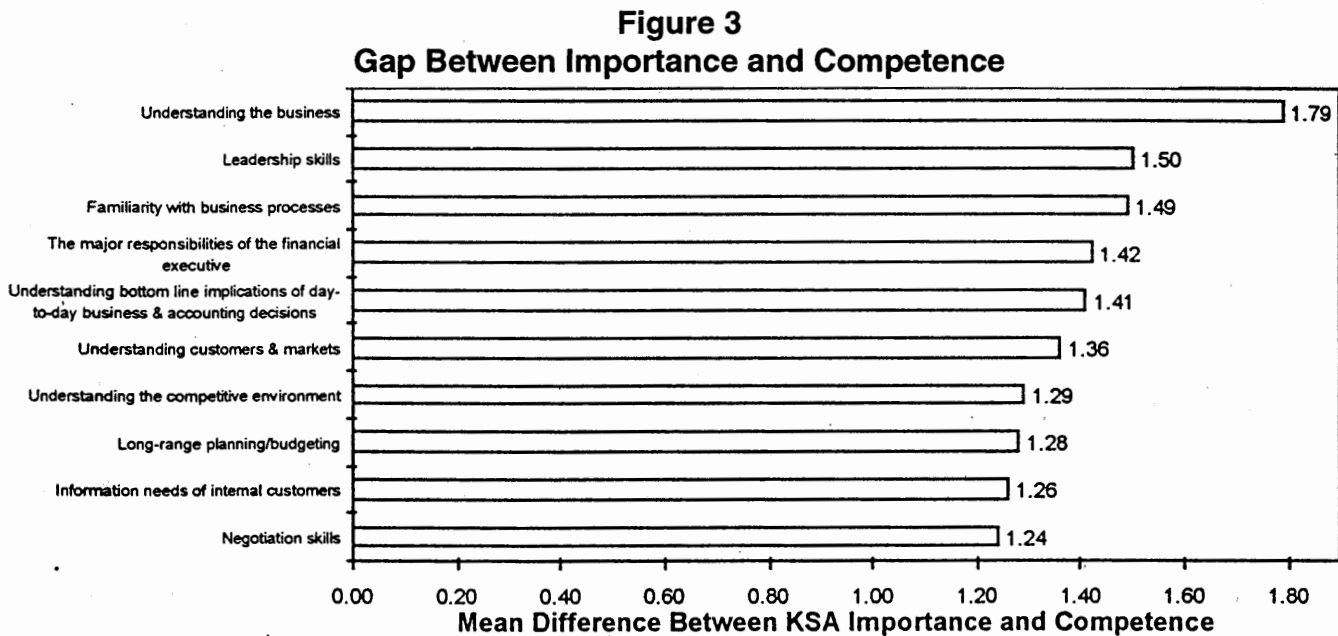
- Accounting system: The "books," cost flows, double entry, etc.
- Accruals & deferrals, adjusting & closing entries
- Relationship between balance sheet, income statement, & cash flow statement
- Understanding/preparing financial statements
- Measurement, valuation, & presentation of revenue & expenses
- Use of computerized accounting systems
- Codes of professional ethics
- Measurement, valuation, & presentation of assets & equities
- Interpreting or analyzing financial statements
- Information needs of external users of financial statements
- Professional standards for accounting, auditing, reporting, etc.
- Measurement, valuation, & presentation of cash flow statement
- Purpose & use of management information systems in business
- Internal control systems
- Understanding bottom-line implications of day-to-day business & accounting decisions
- FASB statements

These results, accentuating the importance of accounting fundamentals, are consistent with the comments of corporate executives interviewed for both *What Corporate America Wants in Entry-Level Accountants* and for the Practice Analysis of Management Accounting.

The Importance-Competence Gap

Each KSA was rated on a 1-to-5 scale both in terms of its importance to the respondent's work and the extent to which entry-level accountants need to be competent in that KSA. It is informative to consider the difference between the mean importance and mean competence scores. For 159 of the 162 KSAs, the importance score exceeded the competence score. (In the three cases where competence exceeded importance, the mean differences were .03, .06 and .11, respectively.) This suggests that practicing management accountants do not expect entry-level accountants to come to the job with skills equal to those possessed by job incumbents.

Figure 3 shows the 10 KSAs with the largest importance-competence gap. Examination of these KSAs suggests that competence in these areas has to be developed with experience.



The Work Environment

Management accountants do not work in isolation. Nearly half (48%) of the respondents – in both large and small companies – report that they are members of cross-functional teams, bringing the financial perspective to bear on corporate decisions. This role requires excellent communication and interpersonal skills, an understanding of all phases of business, and an appreciation for the interrelatedness of the financial function with marketing, engineering, production, and other functional areas.

All corporate accountants need good communication and interpersonal skills. Even those who do not work on teams spend a substantial part of the business day on the telephone or in meetings exchanging information with others (see Table 4).

**Table 4
Hours Per Day Spent
Sharing Business Information**

Hours Per Day Sharing Information	Number	Percent
None	9	1.1%
1-30 minutes	91	11.5%
31-59 minutes	135	17.1%
1-2 hours	312	39.5%
3-4 hours	185	23.4%
5-6 hours	51	6.5%
7 or more hours	7	.9%

A Profession in Transition

The management accounting profession has been in transition for the past 5-to-10 years. Advances in information technology, competitive pressures, and corporate restructuring due to reengineering have resulted in the automation and centralization of many transactional aspects of accounting. Closing the books at year end used to take weeks. Now, many companies close in a few days. Software is being developed that will enable virtual close. Information is becoming much more accessible than it was in the past.

Consequently, management accountants in many companies have been liberated from the mechanical tasks of their work. Instead of collecting information, management accountants are expected to use that freed-up time to analyze it. Instead of preparing financial statements, they interpret the financial information and explain the business implications to managers. They are doing more financial planning and more financial modeling. They work with managers to make informed business decisions.

I think the change is accelerating as we go. The change in the last five years is much more dramatic than say the previous five or ten. Now the accountants are not only the interpreters, but they help drive management toward the proper response to what the numbers are telling us and toward helping them tie together the financial results with the business strategies. In a nutshell, going from a number-crunching-type mode to a business partnership, more strategic approach. (ITT Automotive)

You notice none of my people are called clerical this or that; they are all analysts. That is deliberate. I expect them to think, to I hope know what the end point is, what the requirements are, what the timetable is, and what our expectations are. That is a huge change. (Takata)

The major changes... I'd say the team involvement. When I came into this organization the thrust was to be more traditional accounting like. Now the thrust is to be customer driven, to be much more business oriented rather than accounting oriented, if you understand my differentiation there. All that financial stuff that you learned in college is good because you need a strong understanding of how the financials work in an organization. But really, where you are going to be successful in an industrial setting like this is to understand the business and to have an interest in marketing and to have an interest in processing and operations, to have an interest in design work. It doesn't mean that that is your career path, but what it means is that you become a better manager. (Caterpillar)

A Hewlett-Packard finance manager summed up the change: "We are not accountants, we are analysts and business partners."

The "New Accounting"

It was emblematic of the narrow role of corporate accountants in the past that they were viewed as naysayers, or "corporate cops." They were sometimes avoided until after a decision was made. Now, in many leading-edge companies accountants are sought out to facilitate decision making because of their financial expertise and their comprehensive understanding of the business environment.

In the new milieu, the role of the management accountant has undergone a striking metamorphosis: from number-crunching preparer of financial statements to high-level decision-support specialist. Management accountants are business partners with their customers (managers in operating or service units), internal consultants, and organizational educators.

This is not to say that management accountants do no transactional work. As reported above, management accountants are engaged in a wide variety of accounting tasks. But given the pace of technological change and the competitive advantage that accrues to companies that can use their accountants in ways that add value, the future of the profession appears to be one in which management accountants put their skills to new uses.

When asked which work activities would become more important to the company over the next 2-to-3 years, respondents cited those associated with the new role of management accounting. Table 5 shows the work activities that more than 40% of the respondents say will increase in importance to their company:

Table 5
Work Activities that Will Increase in Importance

WORK ACTIVITY	Percent
Customer and product profitability	59%
Process improvement	56%
Performance evaluation	52%
Long-term, strategic planning	52%
Computer systems and operations	51%
Cost accounting systems	51%
Mergers, acquisitions and divestments	46%
Project accounting	45%
Educating the organization	45%
Internal consulting	44%
Perform financial and economic analyses	42%
Quality systems and control	41%

Interestingly, the work activities in Table 5 map directly to the Baldrige criteria for quality. This suggests that the future of management accounting may be linked to quality and quality improvement.

The “Finance Function”

The management accountants we interviewed refer to themselves not as accountants, but as members of the finance function. In fact, in many companies you seldom hear the word “accounting.” When asked why they use the word finance instead of accounting, most interviewees (who tend to hold degrees in accounting) said that finance has a broader connotation than accounting. Another explanation is that accounting reports on what happened in the past, while finance focuses on the future. In two companies we visited, the management accountants shun the word finance and call themselves decision support specialists; their reasoning is that it is a much better description of what they do.

Regardless of how they refer to themselves, they see their role as distilling diverse information, putting it into a useful format, and facilitating management decision making.

In order to augment the researchers’ subjective evaluation of the in-person interviews we performed a quantitative analysis of verbatim interview transcripts. The analysis was performed on two sets of in-person interviews (Boeing and Hewlett-Packard) with Catpac, a state-of-the-art computer-based content analysis software. Catpac considers the frequency of words and word clusters and generates a quantitative, objective interpretation of the results to supplement the researchers’ subjective interpretation.

This technique was developed a few years ago and has been used in marketing research for major corporations.

The results of the quantitative analysis are consistent with the subjective qualitative interpretation. The value of the quantitative analysis lies in the word clusters that are revealed and the concepts associated with the clusters. The Catpac analysis is in Chapter 5 of the Practice Analysis report.

Where the Profession Is Headed

Everyone we interviewed expects the trend we described to continue: management accountants will do less traditional accounting and more financial analysis and business partnering in the future. While there is agreement on the direction, there are differences in predictions about how fast and how far change will go. These differences probably are rooted in where the company is now, the speed at which its practices are changing, and the organization's attitude toward change. One company's present practice is another company's future practice.

Those interviewed offered their views about the future of management accounting:

We will get more and more to the point where accountants won't spend a lot of time doing accounting, but they will be more analytical and more planning oriented and more of a partner with the operational side of the business. (ITT Automotive)

I think you will find finance people with their teams. All the financial information that we give today, purely financial, will be accessible to managers on line. They won't need finance people to give them the numbers. They will have them there as their business managers. We will have very centralized transaction processing areas – have a lot of specialists centralized. The generalists will be out in the functional areas and part of the team. (Hewlett-Packard)

The world that we're describing isn't specialized like we were trained to be, either an accountant or a business analyst or whatever you want to call it. It's going to be more a generalist. A generalist has to be able to take the detail data which will be managed by a computer system supposedly with some smarts to it, and interpret it for use by the management team. So we're going to have to be more of a generalist because we're going to take not just the financial data that we're talking about here, but maybe the human resources data and the scheduling data and the other metrics that the business manager needs and we're going to have to report out to the guy. So we're going to have much more general knowledge of how the business works. (Boeing)

...what we think we should become in the future is a business partner who helps people understand what the financials are saying, helps them design their businesses, showing

**THE PRACTICE ANALYSIS OF MANAGEMENT ACCOUNTING
AN IMA RESEARCH PROJECT**

them what financial expectations can be, not beating them up with the numbers but showing them trends and helping them understand how they can measure themselves. Basically the term is used over and over again, I guess: partnering. (US West)

...within five years we are going to be seeing a marked change, an emphasis on general knowledge versus specialized knowledge. You are going to be expected to have the knowledge in a specific area, but you are also going to be expected to be able to look at the whole and see how the whole fits. [Cost accounting will be] much more of a consulting type field than it is today. (Boeing)

In my mind, cost accountants are going to be business analysts. (Boeing)

Some anticipate that finance will go beyond business partnering and broaden its role to strategic partner. Rather than support only what happens in the division, management accountants will look at the marketplace and at what the competition is doing. They will need to be more strategic, be better visionaries, and be more proactive:

In five years [we will become] even more strategic. Instead of business partners you might need strategic partners. Really understanding the ins and outs of all the organizations, and what are their buttons and really trying to be visionary -- understanding what is happening to our business. So you have to have somebody who understands the business, that really wants to work and really has a commitment and interest to that. So not accountants any more, not even analysts. (Hewlett-Packard)

We've got to be an integrated, expert business advisor to whoever the equivalent of the CEO is. (Boeing)

ACCESS TO THE PRACTICE ANALYSIS DATABASE

The complete Practice Analysis report and the Practice Analysis database are available on the IMA Home Page on the Rutgers Accounting Web on the Internet. The database is in the form of 1) an SPSS system file and 2) a raw data file. Information on the format and structure of the data are in Appendix F of the Practice Analysis report.

Permission is granted to use the Practice Analysis database for educational purposes. Any publications based on Practice Analysis data should contain the appropriate citations.

The IMA Home Page can be found at <http://www.rutgers.edu/accounting/raw/ima>.

Instructions on how to download the data are available on IMA's Home Page, or call the IMA librarian at 800-638-4427, extension 235.

USES OF THE PRACTICE ANALYSIS DATABASE

Information in the Practice Analysis database can be sorted by company size (sales or number of employees), zip code, respondents' hierarchical level in the organization, age, years of management accounting experience, years of public accounting experience, industrial category, and extent of international business activity.

The Practice Analysis results can be used in a variety of ways by accounting educators, human resource professionals, corporate training directors, and CPE providers. Here are some possibilities.

For accounting educators:

- Evaluate the curriculum. How well does the curriculum cover the most important work activities and KSAs?
- Improve the curriculum. The Practice Analysis database can inform and guide the process of course modification and curriculum design.
- Planning for the future. Assess the extent to which the current curriculum will meet anticipated future needs.

For human resource professionals:

- To write job descriptions.
- To develop job families.
- To develop skills-based guidelines for recruitment.
- To develop skills-based performance evaluation standards.

For corporate training personnel:

- To develop skills-based training modules.
- To develop just-in-time training modules.

For CPE developers:

- To design courses and curricula for management accountants at different stages of their careers.
- To expand the range of courses to include nonaccounting KSAs.

EPILOGUE

The Practice Analysis database can be applied to a variety of academic and corporate objectives. It was not intended, however, to be used in isolation. The usefulness of the Practice Analysis data will be enhanced if they are supplemented with other information. For instance, curriculum designers may want to obtain the perspectives of practicing management accountants as part of the planning and development phases of their work.

The power and relevance of the Practice Analysis are limited only by users' ability to tailor the data to their university or corporate needs.

We encourage users to experiment with the Practice Analysis database and develop innovative applications. Please let IMA know how you used the Practice Analysis data, so that we can share your experience with others.

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William Ihlanfeldt, CPA, 1995-96 IMA president, gave encouragement to the project from the start. His continued support now helps carry the message of the Practice Analysis to academic and corporate audiences.

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**THE PRACTICE ANALYSIS OF MANAGEMENT ACCOUNTING
AN IMA RESEARCH PROJECT**

us, and let us know if we missed a deadline or skipped a beat. We appreciate his patience and understanding and admire his leadership style and commitment to the profession. His support and confidence in us are deeply appreciated. We truly enjoyed working with him.

We thank all the management accountants who took time from their busy schedules to complete the lengthy Practice Analysis questionnaire. The success of this research depends more than we can say on their thoughtful participation.

Finally, we hope that their efforts and ours bring benefits to accounting students and the companies that employ them in the 21st century.

Gary Siegel, on behalf of the Research Team

About the Researchers

The Gary Siegel Organization, Inc. (GSO) is an independent opinion research and behavioral accounting firm serving clients in a wide range of professions and industries. A global network of university-affiliated behavioral scientists, GSO provides executives with strategic information about what key groups of individuals think about any subject that affects organizational performance. GSO clients include the Embassy of Spain - Commercial Office (New York), the International Olive Oil Council (Madrid), Navistar (Chicago), and the American Institute of CPAs (New York). For this GSO project, the research team comprised Laura Appelbaum, George Barnett, Gary Siegel (project director), James Sorensen, and Seymour Sudman.

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**THE PRACTICE ANALYSIS OF MANAGEMENT ACCOUNTING
AN IMA RESEARCH PROJECT**

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