Virtually everyone and every organization is a user of accounting information. Users include the general public relying on publicly available information, investors or shareholders evaluating financial results, creditors making lending decisions, management making business decisions, and regulators responsible for oversight. Some users are also employers. They may be privately or publicly owned businesses, not-for-profit entities, governmental bodies, or public accounting firms. While the specific organization and type of information may vary, the reliability of its accounting information is dependent upon the quality of the people who work within the accounting profession.

Accountants typically hold vital positions of trust with professional responsibilities to both internal and external users. Fulfilling those responsibilities requires technical competency and professional integrity. Competence entails more than technical knowledge. To be competent, an accountant must possess both technical knowledge and professional skills, such as the ability to apply knowledge in making reasoned judgments and to communicate effectively. Additionally, accountants must act with integrity by recognizing their broad professional responsibility to all users of financial information and by making ethical decisions in conjunction with that responsibility. Integrity demands ethical action based on professional values. These characteristics of technical knowledge, professional skills, and integrity form the framework of competency needed by current and future accountants.

**Accountants - Paraprofessionals and Professionals**

Accounting information is prepared, evaluated, interpreted, attested to, and communicated by a wide variety of people from different educational backgrounds. Some enter the field as paraprofessionals with little formal training. Others may have graduate degrees and extensive education. They may be accounting staff, operational accountants, auditors, tax accountants, regulators, or chief financial officers. The roles are diverse, and a variety of skills are needed.

Accounting paraprofessionals can be generally defined as those working within the accounting field who do not hold, at a minimum, a college or university degree which meets the accounting profession requirements. Some paraprofessionals have earned a two-year associates degree or other accounting-related certificate, while others may have no advanced education. Work can range from bookkeeping to more advanced assistance to professionals. Accounting professionals may be licensed Certified Public
Accountants (CPAs) who generally have 150 hours of college or university education meeting specific content criteria. Other degreed professionals may choose to become Certified Internal Auditors, Certified Management Accountants, Certified Government Financial Managers (CGFM), or one of the other specialized certifications. Some accountants may hold multiple certifications, while others may not hold any.

The CPA license is issued and regulated by the state board of the individual licensing jurisdiction. The State Boards of the fifty states plus four territories and the District of Columbia cooperate through the National Association of State Boards of Accountancy (NASBA). Although CPA regulation is established by each jurisdiction’s legislature, the Uniform Accountancy Act (UAA) serves as a model Act to promote common standards. The UAA is jointly developed and maintained by NASBA and the American Institute of Certified Public Accountants (AICPA), and education requirements are included through UAA Rules. In addition, CPAs auditing publicly traded companies are subject to oversight by the Public Company Accounting Oversight Board (PCAOB).

Other certifications do not require a license and are earned from independent credentialing organizations. Specific competencies vary among the designations. However, accounting professionals and paraprofessionals should meet standards for technical knowledge, professional skills, and ethical behavior founded on integrity, responsibility, and commitment to the public interest.

**Competencies**

In evaluating accounting competency, the Pathways Commission reviewed information from multiple sources including the International Federation of Accountants (IFAC), NASBA, AICPA, the Institute of Management Accountants (IMA), and the Institute of Internal Auditors (IIA), among others. (A complete listing is included in the Appendix.) Research, articles, and certification exam content were consulted. The information was accumulated, compared, and used as a foundation to develop recommendations for the components of accounting competency in three divisions (1) technical knowledge, (2) professional skills, and (3) professional integrity, responsibility, and commitment. A table is presented for each division, and each listed item is followed by numbers within parentheses. These numbers identify the specific source summarized in the Appendix.

**Technical Knowledge**

Knowledge topics for accounting can be diverse given the many possible areas of specialization. All of the reviewed sources included multiple topics of technical knowledge, and a comprehensive listing is not practicable. Therefore the following table of technical knowledge is not intended to be fully inclusive of all possible topics. It is intended, however, to be a guide for topics considered technical knowledge.
Technical Knowledge
(Parenthetical numbers reference sources in the Appendix.)

<table>
<thead>
<tr>
<th>Financial Accounting and Reporting (2,4,5,8,9,13,14,17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Knowledge of ever-evolving regulations and standards</td>
</tr>
<tr>
<td>o Accounting principles and rules (2,8,9,13,14,17)</td>
</tr>
<tr>
<td>o Financial reporting complexity ... globalization of accounting standards (4,5,9)</td>
</tr>
<tr>
<td>o External reporting needs (4,8,9,13)</td>
</tr>
<tr>
<td>o Specialized industry knowledge (5,8)</td>
</tr>
<tr>
<td>o Fair value accounting and measurement (5,8,9)</td>
</tr>
<tr>
<td>• Internal controls methods ... fraud control (5,8,9,13,14)</td>
</tr>
<tr>
<td>• Research skills (identify, gather, measure, verify, analyze, and interpret) (3,8)</td>
</tr>
<tr>
<td>• Accounting and review services (8,9)</td>
</tr>
<tr>
<td>• Judgment in the application of accounting principles (9)</td>
</tr>
<tr>
<td>• Legal/regulatory perspective</td>
</tr>
<tr>
<td>o Knowledge of evolving regulatory framework (2,4)</td>
</tr>
<tr>
<td>o Legislative and regulatory requirements (2,3,8,9,14)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operational/Management Accounting (2,4,5,6,7,8,9,14,15,17)</th>
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</thead>
<tbody>
<tr>
<td>• Computer skills (2,4,6/7,17)</td>
</tr>
<tr>
<td>o Understand ERP and IT systems (4)</td>
</tr>
<tr>
<td>o Apply appropriate IT systems and tools to business and accounting problems (17)</td>
</tr>
<tr>
<td>o Apply controls to systems (17)</td>
</tr>
<tr>
<td>• In depth business knowledge</td>
</tr>
<tr>
<td>o Business/legal knowledge (9,14)</td>
</tr>
<tr>
<td>o Ability to document business purposes/processes and flow of information (9)</td>
</tr>
<tr>
<td>• Financial discipline</td>
</tr>
<tr>
<td>o Cost accounting principles and systems (6/7,15)</td>
</tr>
<tr>
<td>o Planning, budgeting, and forecasting (6/7,13,15)</td>
</tr>
<tr>
<td>o Customer and product/services profitability (6/7)</td>
</tr>
<tr>
<td>o Product and services costing (6/7)</td>
</tr>
<tr>
<td>o Financial and economic analysis (6/7,15,17)</td>
</tr>
<tr>
<td>o Project management (6/7)</td>
</tr>
<tr>
<td>o Process improvement and performance management (6/7,9,15)</td>
</tr>
<tr>
<td>• Quality systems and controls (6/7,15)</td>
</tr>
<tr>
<td>• Risk analysis and management/ERM (4,5,8,14,15)</td>
</tr>
<tr>
<td>• Internal audit (14)</td>
</tr>
<tr>
<td>• Performance evaluation ...organization, process, people (6/7)</td>
</tr>
<tr>
<td>• Mergers and acquisitions (6/7)</td>
</tr>
<tr>
<td>• Corporate finance (15)</td>
</tr>
<tr>
<td>• Investments (6/7, 15)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Governmental accounting and reporting (8, 9, 11, 12, 14)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Governmental environment (14)</td>
</tr>
<tr>
<td>• Governmental accounting, financial reporting, and budgeting (14)</td>
</tr>
<tr>
<td>• Governmental financial management and control (14)</td>
</tr>
</tbody>
</table>
• Key issues:
  o Financial disclosure (9, 12)
  o Accounting and auditing issues (9, 11, 12)
  o Fund accounting (9, 12)
  o Recognition of economic impact on communities (12)

Auditing and attest services (8, 9, 19)
• Audit of historical information at an advanced level (9, 19)
  o Best practices (19)
  o Appropriate auditing standards (9, 19)
  o Relevant current issues and developments (19)
  o Internal controls (8, 9)
• Financial accounting and reporting at an advanced level (9, 19)
  o Financial accounting and reporting processes and practices (9, 19)
  o Applicable financial and reporting standards (9, 19)
  o Relevant current issues and developments (9, 19)
• Information technology (19)
  o IT systems for financial reporting (9, 19)
  o Frameworks for evaluating controls and assessing risks (9, 19)
  o Relevant current issues and developments (9, 19)

Other areas
• Taxation – federal, state, local and international (9, 17)
• Corporate governance – know appropriate and inappropriate governance structures within an organization (9)
• Independence and professional standards (8, 9)
• Nonprofit accounting and reporting (9, 12)
  o Recognition of economic impact on communities (12)
• Strategic planning (6/7, 14)
• Business law (9, 17)
• Specialized industry requirements
• Forensic accounting (25)
• Decision modeling (2, 8)
• Globalization
  o Knowledge of changes in global economic markets (8, 9, 14)
  o Impact on the business environment and financial reporting (9, 14)

The technical component of knowledge is constantly changing. New accounting standards may be adopted; laws altered; and new technologies developed. As a result, knowledge is likely to become obsolete over time. To remain competent, individuals must maintain the currency of their knowledge. Therefore, competency also requires a commitment to life-long learning.
Professional Skills

Effectively applying knowledge requires professional skills. Sources classified skills in different ways, but all considered practice skills as important to building competency. Some of these skills can be learned in the classroom. Others may be best learned in a practice setting.

<table>
<thead>
<tr>
<th>Professional Skills</th>
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</thead>
<tbody>
<tr>
<td>(Parenthetical numbers reference sources in the Appendix.)</td>
</tr>
<tr>
<td>• Critical thinking, problem solving (1,2,4,8,10,21,23,24,25,26)</td>
</tr>
<tr>
<td>o Ability to identify and solve unstructured problems (1,2,14,19,21)</td>
</tr>
<tr>
<td>o Capacity for inquiry, research, logical and analytical thinking (2,19,21)</td>
</tr>
<tr>
<td>o Professional skepticism and ability to think independently (9)</td>
</tr>
<tr>
<td>o Ability to effectively deal with difficult issues (11)</td>
</tr>
<tr>
<td>• Judgment and decision making (2,4,8,11,19,21)</td>
</tr>
<tr>
<td>o Reasons carefully and thinks effectively (8,19,21)</td>
</tr>
<tr>
<td>o Analyzes impact of potential actions on all stakeholders (8,11)</td>
</tr>
<tr>
<td>o Considers contingencies and future developments (8)</td>
</tr>
<tr>
<td>o Considers ethical, professional, and legal issues (2)</td>
</tr>
<tr>
<td>o Considers global consequences (8,14)</td>
</tr>
<tr>
<td>• Communications /collaboration (1,2,4,8,11,14,22,23,24,25,27)Demonstrates the following:</td>
</tr>
<tr>
<td>o Oral and written communication skills (1,2,4,8,10,11,24,25,27)</td>
</tr>
<tr>
<td>o Teamwork skills (2,14,23,24,25,27)</td>
</tr>
<tr>
<td>o Interpersonal communication skill for facilitating effective interaction/works collaboratively (1,8,22,27)</td>
</tr>
<tr>
<td>o Negotiation skills (1,2,4,14)</td>
</tr>
<tr>
<td>o Ability to withstand and resolve conflict (19)</td>
</tr>
<tr>
<td>o Ability to effectively deal with difficult people (11)</td>
</tr>
<tr>
<td>o Stakeholder management, including external shareholders (11)</td>
</tr>
<tr>
<td>• Leadership skills (2,4,8,11,14,22,23,25)</td>
</tr>
<tr>
<td>o Strategic planning (2,8,14,22,25)</td>
</tr>
<tr>
<td>o Able to develop, motivate, and mentor talent (2,8,14,23)</td>
</tr>
<tr>
<td>o Seeks to identify and resolve conflict situations (11)</td>
</tr>
<tr>
<td>o Recognizes current and potential crisis situations and resolves effectively (11)</td>
</tr>
<tr>
<td>o Business development (23)</td>
</tr>
<tr>
<td>• Managerial skills (2,4,8,13,14,21,22,23)</td>
</tr>
<tr>
<td>o Ability to select and assign priorities within restricted resources (2,22,23)</td>
</tr>
<tr>
<td>o Meets deadlines and budgets (4,8,23)</td>
</tr>
<tr>
<td>o Exercises due care in the performance of work (9,13,14)</td>
</tr>
<tr>
<td>o Integrates diverse areas of knowledge and skills (21)</td>
</tr>
<tr>
<td>• Commitment to learning ... both a skill and an attitude (2,8,9,22)</td>
</tr>
<tr>
<td>o Self-direction to manage personal learning and work (2)</td>
</tr>
<tr>
<td>o Leverages technology to develop and enhance technical knowledge (8)</td>
</tr>
<tr>
<td>o Accepts professional development as a life-long process (8)</td>
</tr>
<tr>
<td>o Objectively considers others’ professional criticism or evaluation (8,9,22)</td>
</tr>
</tbody>
</table>
| • People skills and personality (1,2,5,8,11,22,24) Possesses the following characteristics:
Demonstrates cross cultural skills and language abilities (2,5,8)
- Professional demeanor (8)
- Multitasking (1,11,27)
- Receptive to ideas of others (8,11)
- Ability to anticipate and adapt to change (2,8,25)
- Creativity and innovation (8,22,27,27)
- Reliability, responsibility, timeliness, courtesy, and respect (18,25)
- Entrepreneurial mindset (22)
- Positive attitude (22)
- Work ethic (24)
- Initiative (24)
- Copes with pressure (1,25)

Professional Integrity, Responsibility, and Commitment

Most sources included a requirement relating to ethics, values, or integrity. IFAC’s International Accounting Educations Standards Board included a component entitled “professional values, ethics, and attitudes.” In International Education Standard (IES) 4, IFAC stated:

Professional values, ethics, and attitudes need to be treated in their own right within the education framework. If future professional accountants are to perceive professional values, ethics, and attitudes as important to their work, it is essential that they do not perceive the treatment of professional values, ethics, and attitudes as peripheral to their main education programs.

The Pathways Commission expands this concept to more broadly recognize that ethical behavior is also founded on integrity, responsibility, and commitment to the profession’s broad societal and economic purposes. Education can enhance these characteristics and build skills in ethical decision making and responsible judgment.

Professional Integrity, Responsibility, and Commitment
(Parenthetical numbers reference sources in the Appendix.)

- Ethical knowledge - principles and recognition (1,2,3,5,9,13,19,20,21)
  - Fundamentals of traditional ethical concepts and principles (1,13,20)
  - Understands the environment that influences decisions (20)
    - Relevant standards and codes (20)
    - Expectations of ethical and professional conduct (20)
  - Awareness of personal and social values (1,2)

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Future Outlook

As accounting and business evolve, the required knowledge and skills will also change. Adoption of more principle-based standards will require more judgment. More judgment may lead to a wider variability in decisions and, possibly, increase the risk of litigation. At the same time, pressures to conform to economic pressures may increase. Measurement issues and fair value calculations may enhance financial reporting, but they are also more subject to manipulation. Therefore, responsible judgment becomes even more important, as does ethical behavior consistent with the accounting profession’s responsibilities.
Complex business transactions and globalization continue to change the business environment. Additionally, technology’s rapid development introduces new opportunities and challenges. Fraud control, risk management, and specialized skills will be needed. Regulation will certainly evolve and be complicated by global operations. All of these changes increase the need for both knowledge and skills that meet the changing environment. As a result, the importance of life-long learning is magnified.

Some of the factors increasing the need for professional skills also increase the demand for the skilled professional. Globalization, complexity of information, and enterprise risk are only a few of those factors. Clearly, the strength of the economy is a primary determinant of need. As the economy grows, the need for accountants will grow as well. Additional opportunities for accountants could arise from the increasing scrutiny on business triggering a greater focus on transparency and accountability.

The Department of Labor predicted a much faster than average growth in employment in its *Occupational Outlook Handbook (2010-2011):*  

*Employment change.* Employment of accountants and auditors is expected to grow by 22 percent between 2008 and 2018, which is much faster than the average for all occupations. This occupation will have a very large number of new jobs arise, about 279,400 over the projections decade. An increase in the number of businesses, changing financial laws and corporate governance regulations, and increased accountability for protecting an organization’s stakeholders will drive job growth. ³

The opportunities may be further enhanced for those with certification(s), advanced degrees, and specialized expertise. ⁴

**Reflections**

While the purpose of this paper is to identify competencies needed by future accountants, specific competencies will depend on the specific role(s) held by the individual. Consequently, identifying competencies for alternative career paths could be helpful for both accountants and employers.

It is clear, however, that future accountants must learn more than technical knowledge. To be successful, accountants must develop professional skills and the ability to act ethically in difficult situations. It is the integration of knowledge, skills, and ethical action that form competency and fulfill the accounting profession’s responsibility to society.


⁴ Ibid.