An Assessment Program for Accounting: Design, Implementation, and Reflection

Bonnie P. Stivers, Jane E. Campbell, and Heather M. Hermanson

ABSTRACT: This paper describes an assessment program for the undergraduate accounting degree program at a large, public university and highlights lessons learned in the application of this program. Faculty developed this program and have implemented assessment activities each year since 1993. Prior research has examined different aspects of designing and implementing accounting assessment programs. This paper adds to the literature by offering in-depth, practical advice regarding implementation issues and by providing specific source information for several standardized tests and tools. This program and the lessons learned in implementing it should be of use to faculty who are in the early stages of assessment-program development. This paper presents an overview of the assessment process, a full description of our assessment program, details of assessment methods, examples of the utilization of assessment results, and a recapitulation of lessons learned.

In recent years, the public has become increasingly interested in how state dollars are being used in the university education process (e.g., improved teaching and smaller class sizes vs. graduate teaching assistants and large lecture halls). As a result, many states are beginning to evaluate their public education process more closely. One aspect of this evaluation is program assessment. Many states now require assessment of major degree programs.

This paper describes the assessment program for the undergraduate accounting degree program at Kennesaw State University and highlights the lessons learned from implementing this program. Given the common learning outcomes desirable for accounting graduates—such as communication skills—the process we have used and the experiences we have had can help others identify what issues to consider.

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The authors thank David E. Stout (editor), Jeff Cohen (associate editor), Dana Hermanson, John McAllister, and two anonymous reviewers for their input. Examples of assessment measures developed are available on request.
and what problems to try to avoid when they work on their own assessment programs.\footnote{The assessment program presented in this article was developed at a large, public university. While it is not clear that learning outcomes will vary across schools, individuals developing accounting assessment programs should carefully consider the needs/requirements of their specific institutions.}

The paper is organized as follows. The first section provides a brief introduction to program assessment. The second section presents a full description of our assessment program. The third section describes the assessment methods we have used in our program and why we selected them. The fourth section provides examples of how we have utilized our assessment results. An assessment program should itself be reviewed for effectiveness, which is discussed in the fifth section. The final section provides an extensive list of lessons we have learned over the years.

**OVERVIEW OF ASSESSMENT**

**Pressures for Assessment**

We initiated our formal assessment program in response to both external and internal pressures. The University System of Georgia has encouraged the assessment of institutional effectiveness since Fall 1986. By January 1993, each institution was to submit comprehensive assessment plans for each major degree program (Task Force on Assessing Major Area Outcomes 1992). Although the Board of Regents’ policy requires assessment, the System has not adopted an official assessment model. This flexibility is desirable in that it allows faculty the opportunity to tailor plans for their specific areas. However, the absence of a model plan can result in waste and duplication of effort in the design of assessment processes (Nichols 1991a).\footnote{Given that accreditation groups (e.g., the AACSB) are now clamoring for assessment as well, it is likely that most accounting programs are feeling pressured or required to perform assessment. Prior to the state mandate for assessment, our department did not have a formal assessment program; however, we had informal assessment activities. For example, we regularly obtained informal feedback from students, alumni, and employers, and employed teaching evaluations. Occasionally we used surveys, but more formal methods were not used on a regular schedule. Pressure to create an assessment program may cause such a program to be formalized more quickly; however, it is not automatic that a general requirement for assessment fundamentally changes the nature of the assessment program itself.}

Although the Regents’ policy compelled us to write a formal assessment plan by a given date, the major motivation for assessing our degree program has always come from within our department. However, the perception of what constitutes good accounting education has changed significantly over the last 15 years. For example, the report of the American Accounting Association (AAA) Committee on the Future Structure, Content and Scope of Accounting Education (The Bedford Committee) (AAA 1986) expressed concern that accounting programs were focused too narrowly on the teaching of technical knowledge. Leading public accounting firms (Perspectives 1989) and the Accounting Education Change Commission (AECC 1990) similarly called for changes to improve accounting education. We knew we needed information that would allow us to determine whether our program was keeping up with the pace of change in the accounting profession. Thus, both external demands for accountability and our own internal desires for continuous improvement led us to develop and implement the assessment program we describe in this paper.
The Assessment Process

The Study Group on the Conditions of Excellence in American Higher Education (1984) emphasized assessment as a form of feedback to improve teaching and learning. Educational assessment is "the systematic collection, interpretation, and use of information about student characteristics, the educational environment, and learning outcomes to improve student learning and satisfaction" (Gainen and Locatelli 1995, 3). In other words, assessment is the process of determining whether expected results of a program are being achieved. This can be determined by a systematic program of observation, measurement, testing, reporting, and revision. Further, assessment is an ongoing process whose goal is continuous program improvement.

Literature on Accounting Program Assessment

During the 1990s, the literature focused specifically on accounting program assessment grew significantly (Rebele et al. 1998).3 DeMong et al. (1994) provide a generic plan for accounting assessment based on outcomes they think are valuable. The plan is generic in the sense that the authors provide numerous possible outcomes (e.g., accounting knowledge and awareness of social issues) that might be assessed and discuss various methods for measurement. The outcomes are not tailored to any specific mission or objectives for an accounting program, and specific types of measures (e.g., kinds of standardized tests) are not examined in detail.

Frederickson and Pratt (1995) conceptualize the accounting education process in the form of a "constrained optimization model." The focus of their model is to minimize the difference between the competencies demanded by employers and the competencies displayed by students. Thus, they argue that the keys to the model are understanding the desires of the profession and assessing student outcomes. The authors use competencies defined by Deppe et al. (1991) to develop seven key areas for desired outcomes (e.g., communication skills and information development and distribution skills), and they call for assessment that covers this broad set of competencies.

In a more recent paper, Kimmell et al. (1998) provide a thorough history of assessment in higher education and examine the current state of assessment in the U.S. by sampling AACSB-accredited accounting programs, AACSB-accredited business schools, and non-AACSB schools. Their results indicate that outcomes assessment is not as common as one would expect (and, interestingly, not related to AACSB accreditation status) and that schools instituting comprehensive plans are quite varied in their definition of "comprehensive."

Several studies have examined specific tools or techniques that might be useful in assessment. For example, Herring and Izard (1992) evaluate the usefulness of one standardized measure of accounting knowledge, the Achievement Test for Accounting Graduates (ATAG). Their results indicate a relationship between ATAG scores and other measures of student intellect (e.g., GPA, ACT scores).

Similarly, Hill et al. (1998) consider student surveys as a method of collecting baseline data for outcomes assessment. The authors provide information on the implementation of student surveys and illustrate the types of data that may be collected (e.g., "commitment to life-long learning"). One study has examined a comprehensive assessment plan for accounting. Akers et al. (1997) describe Marquette University's assessment program, but focus primarily on two outcome measures, an alumni survey and a communication skills instrument.

Apostolou (1999, 180–181) reproduces a list of suggested research topics identified by the 1992–93 AAA Outcomes Assessment Committee (Baker et al. 1993). This paper responds to the seventh topic in that list: "examine the problems of implementing a system of outcomes assessment in a typical accounting program." Like Akers et al. (1997), we describe specific features of an actual comprehensive assessment program. However, rather than focusing on a few measures, we review the entire program and its development. We describe numerous assessment methodologies and their sources, explain how we have used assessment feedback for continuous improvement, and identify the pitfalls and lessons we have learned in trying to implement our program. By detailing our plan and experiences, we hope to highlight many of the issues and problems others might face in developing and implementing assessment programs, and offer guidance to make the process simpler.

**ASSESSMENT PROGRAM OVERVIEW: KENNESAW STATE UNIVERSITY**

The foundation of an effective assessment program is the organizational unit's *mission statement*, which describes the overall goals of the degree program. Targeted *learning outcomes* (e.g., communication skills) stem from the mission statement. *Assessment methods* are selected to measure results, and target results are identified. In addition, *student characteristics and the educational environment* are considered in order to evaluate the stability of the program and to anticipate change.

Part of the initial development of an assessment program includes determining the *frequency* of use of the assessment methods (annually, etc.). Based on the assessment methods scheduled for a given year, *responsibility* for implementation is assigned to faculty. *Assessment results* are analyzed annually to determine ways to improve the degree program. In addition, a faculty team *assesses the assessment program* and recommends changes. This assessment process is similar to a performance management system in any business operation. The mission determines the critical activities, and selected measures focus on these activities (Kaplan and Norton 1996).

**Mission Statement**

The Department of Accounting at Kennesaw State University emphasizes the missions of teaching, service, and research:

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4 Our assessment program follows steps suggested in Nichols (1991a, 156), which were based on steps identified by the regional accrediting body, Southern Association of Colleges and Schools. Gainen and Locatelli (1995) and Akers et al. (1997) use stages in the assessment process that are similar to those suggested by Nichols.

5 The objective of the measurement process is to capture information about specific current operations that provide timely indications of future success. This feedback mechanism is the basis for a program of continuous improvement.
Our mission is to be an accounting department of creative, highly qualified professionals dedicated to preparing our students for entry-level opportunities and long-term career success, providing a fulfilling experience for members of our faculty, and making meaningful contributions to the professional and academic communities.

Teaching is the primary mission of our University, of our College of Business, and of our Department of Accounting. Research is expected, both to support teaching and to promote professional development. The learning outcomes identified for our assessment program stem from the primary mission of preparing our students for entry-level opportunities and long-term career success.6

Learning Outcomes
To address our mission of preparing our students for entry-level opportunities and long-term career success, we selected six capabilities as our primary learning outcomes: (1) communication skills, (2) intellectual skills, (3) interpersonal skills, (4) general knowledge, (5) organizational and business knowledge, and (6) accounting knowledge. These capabilities were identified as necessary for the practice of accounting by the chief executives of the largest public accounting firms (Perspectives 1989, 6–8). A description of these learning outcomes is provided in Panel A of Table 1.7

Assessment Methods and Frequency
Each learning outcome can be assessed using a number of different methods. "As in other research endeavors, reliability can be improved by the use of "multiple measures"" (Nichols 1991a, 162). The next major section describes several of the assessment methods available. The choice of method(s) and the frequency of assessment should reflect program priorities and resources. Columns 3 and 4 of Table 1 present the assessment methods we have used and the frequency of application of each method.

Student Characteristics and Educational Environment
As mentioned earlier, Gainen and Locatelli (1995, 3) define educational assessment to include the examination of student characteristics and the educational environment, as well as learning outcomes. Students come to college with personal qualities and talents, and they interact with the educational environment to achieve learning outcomes. Although it is impossible to differentiate precisely the impact of the various factors that may affect college students, Gainen and Locatelli (1995) suggest that evidence from multiple

6 While our institution focuses on teaching, the assessment program we present should be reasonably generalizable to institutions that emphasize teaching and research equally—as long as the department's mission focuses on students' entry-level opportunities and long-term career success. Focusing on students' career success forces the learning outcomes to be fairly consistent across institutions, because employers are looking for certain competencies (regardless of the institution). While the learning outcomes should be fairly consistent, the assessment methods chosen may vary across institutions.

7 These learning outcomes are similar to those suggested by the Accounting Education Change Commission (1990). In addition to the six identified by Perspectives (1989), the AECC identified two additional capabilities: accounting skills and personal capacities. We have incorporated accounting skills into our accounting knowledge outcome. The personal capacities category covers such things as energy, empathy, and integrity. While we feel that these are important, we limited our assessment program to objectives that we felt were most under our control.
<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
<th>Assessment Method</th>
<th>Frequency of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Communication Skills</td>
<td>Graduates demonstrate effective oral and written business communication behaviors.</td>
<td>College Board Academic Subjects Examination (CBASE)</td>
<td>Every third year</td>
</tr>
<tr>
<td>2. Intellectual Skills</td>
<td>Student work is logically sound.</td>
<td>Student Survey</td>
<td>Biannual</td>
</tr>
<tr>
<td>3. Interpersonal Skills</td>
<td>Graduates are able to work effectively in groups and take leadership positions in their organizations.</td>
<td>Watson-Glaser Critical Thinking Appraisal for Managers and Professionals (WGCTA-S)</td>
<td>Every third year</td>
</tr>
<tr>
<td>4. General Knowledge</td>
<td>Graduates demonstrate knowledge of the economic, political, and social forces in the world today.</td>
<td>Employee Survey</td>
<td>Biannual</td>
</tr>
<tr>
<td>5. Organizational and Business Knowledge</td>
<td>Graduates are able to analyze and interpret business data.</td>
<td>Employee Survey</td>
<td>Biannual</td>
</tr>
<tr>
<td>6. Accounting Knowledge</td>
<td>Graduates possess sufficient entry-level accounting knowledge.</td>
<td>CPA Exam scores</td>
<td>Annual</td>
</tr>
</tbody>
</table>

(Continued on next page)
<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
<th>Assessment Method*</th>
<th>Frequency of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Student Characteristics</td>
<td>Level of qualification.</td>
<td>• Accounting Aptitude Test (AAT)</td>
<td>• Every third year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• SAT/ACT scores</td>
<td>• Annual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• GPA</td>
<td>• Annual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Demographics</td>
<td>• Annual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• PSAS</td>
<td>• Annual</td>
</tr>
<tr>
<td>8. Student Satisfaction</td>
<td>Level of satisfaction.</td>
<td>• AACSB/EBI Project</td>
<td>• Every third year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Faculty Survey</td>
<td>• Biannual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Teacher/Course Evaluations</td>
<td>• Every third year</td>
</tr>
<tr>
<td>9. Teacher/Course Evaluation</td>
<td>Teacher performance.</td>
<td>• Program Self-Assessment Service (PSAS)</td>
<td>• Every term</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Faculty Survey</td>
<td>• Every third year</td>
</tr>
<tr>
<td>10. Program Characteristics</td>
<td>Degree to which program meets stakeholders’ needs.</td>
<td>• Employer Survey</td>
<td>• Biannual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Review of Syllabi</td>
<td>• Annual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Institutional Data</td>
<td>• Annual</td>
</tr>
</tbody>
</table>

* Descriptions of the assessment methods are provided in Table 3.
sources can be integrated over time to understand the relationships among learning outcomes, student characteristics, and the educational environment.

Such information about student characteristics and the educational environment could aid in the interpretation of assessment results. For example, it would not be surprising to find that performance on an accounting standardized test is better for high-SAT students than for low-SAT students. In addition, changes in the characteristics of the students or the educational environment might provide a signal of potential trouble before learning outcomes are affected. For example, if the SATs of entering students drop significantly, one could anticipate that performance on the learning outcomes would decline in the future if no changes were made in the program. As indicated in Panel B of Table 1, we selected four areas for measurement: (1) student characteristics, (2) student satisfaction, (3) teacher/course evaluation, and (4) program characteristics.

Responsibility

We subscribe to the view that accounting department faculty have the primary responsibility for accounting program assessment. Our assessment team comprises six to eight faculty members. The team responsibilities are to: (1) review and revise the overall assessment program, (2) select components of the program to be implemented during the current year, (3) coordinate and implement the selected activities, (4) compile the data, and (5) report the assessment activity and results to the faculty, chair, and dean. In our program, data are collected during the spring term. Results are tabulated, analyzed, and summarized in report form during the summer term. The assessment findings are shared with the department as a whole the following fall term.

Reporting and Using Results

Continuous program improvement is the overarching goal of assessment. What we do with assessment information we collect determines the success of our program. Therefore, recommendations based on assessment results should be action-oriented and clear. In addition, they should be in writing and shared with the faculty, chair, and dean. We believe the start of each academic year is a good time to review the accomplishments of the prior year and to consider revisions of curricula and processes. This seems to be the time when our faculty are more enthusiastic, energetic, and willing to consider changes.

Assessing Assessment

Our assessment team meets at the beginning of the academic year to critique the assessment process, methods, and reporting mechanisms. Some assessment methods do not work as anticipated. They may need to be replaced or their scheduling may need to be adjusted. Peterson et al. (1997)

8 The Board of Regents mandates faculty involvement in departmental assessment.
9 For example, for the 1999–2000 year the seven-member committee agreed to the following assessment activities: syllabi review; collection of CPA exam scores; collection of institutional data; administration of the AAT, ATAG, and CBASE; administration of an employer survey and a student survey; and review of the AACSB/EBI student satisfaction data. One or two committee members volunteered to work on each activity and report the results to the committee chair. The committee chair prepares the initial draft of the assessment report for review by the committee. The final version is submitted to the Department Chair, the Dean, and the University.
10 This schedule of activity follows the suggestions of Nichols (1991b).
suggest identifying clear means to evaluate the assessment program. The primary issue is whether the assessment process leads to improvement in academic programs.

**ASSESSMENT METHODS**

This section describes the assessment methods we have used in our program. These methods fall into the following categories: standardized tests, surveys, course-embedded measures, and institutional data. Of course this set of methods will not work for everyone. But given the common outcomes desirable for accounting graduates, the process we have used and the experiences we have had can provide information to others about what issues to consider and what problems to try to avoid.

Table 2 summarizes which methods were used to capture data for each learning outcome (and also for the student characteristics and educational environment). Each assessment method is described briefly in Table 3. This table also includes source information and tips.

**Standardized Tests**

As shown in Table 2, the following standardized tests were identified to measure communication skills, intellectual skills (critical-thinking skills), general knowledge, and accounting knowledge.

**Accounting Aptitude Test (AAT)**

The AAT measures skills and abilities considered important for success in the study of accounting. The test has three parts: communication skills, quantitative skills, and problem-solving skills. The results of the AAT provide us with measures of student communication skills and critical-thinking skills early in the program. Administrative costs are reasonable because the exam can be scored locally and test booklets can be reused. Norm data are available for benchmarking.

**Achievement Test for Accounting Graduates (ATAG)**

We administer the ATAG to seniors to measure technical skills in accounting. The test covers five content areas: auditing, financial, cost and managerial, accounting information systems, and taxation. National norms are available for all parts. Nichols (1991a) suggests that the ATAG exam is most appropriate for assessing accounting majors at four-year schools. Herring and Izard (1992) confirm the ATAG is a useful tool to measure technical accounting skills. The tests can be scored locally and test booklets can be reused.

Two alternatives to the ATAG are: (1) Major Field Achievement Tests by the Educational Testing Service (ETS), and (2) the Core Curriculum Assessment Program (CCAP) offered by AACSB. ETS achievement tests are available for 16 academic subjects, including accounting. The CCAP is a database used to develop custom exams (Baker et al. 1993) consisting of questions on accounting and other business subjects. We selected the ATAG because it covers five areas of accounting that correspond to the courses in our curriculum.

**College Basic Academic Subjects Examination (CBASE)**

We are currently using the CBASE to measure general knowledge. The long form (three and one-half hours) covers English, mathematics, science, and social studies. The short form (two hours) covers English and mathematics. In addition to providing scores for general knowledge overall and by subject area, CBASE provides three
### TABLE 2
Assessment Methods Used by Kennesaw State University, Department of Accounting

#### Panel A: Learning Outcomes

<table>
<thead>
<tr>
<th>Objective</th>
<th>Standardized Tests</th>
<th>Assessment Method</th>
<th>Institutional Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Communication Skills</td>
<td>CBASE</td>
<td>Employer Survey</td>
<td>Syllabi Review</td>
</tr>
<tr>
<td>2. Intellectual Skills</td>
<td>CBASE</td>
<td>Student Survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WGCTA-S</td>
<td>Employer Survey</td>
<td></td>
</tr>
<tr>
<td>3. Interpersonal Skills</td>
<td>CBASE</td>
<td>Student Survey</td>
<td></td>
</tr>
<tr>
<td>4. General Knowledge</td>
<td>CBASE</td>
<td>Employer Survey</td>
<td></td>
</tr>
<tr>
<td>5. Organizational and Business Knowledge</td>
<td>ATAG</td>
<td>Student Survey</td>
<td></td>
</tr>
<tr>
<td>6. Accounting Knowledge</td>
<td>CPA Exam</td>
<td>Employer Survey</td>
<td></td>
</tr>
</tbody>
</table>

#### Panel B: Student Characteristics and Educational Environment

<table>
<thead>
<tr>
<th>Objective</th>
<th>Standardized Tests</th>
<th>Assessment Method</th>
<th>Institutional Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Student Characteristics</td>
<td>AAT</td>
<td>PSAS</td>
<td>SAT/ACT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AACSB/EBI Project</td>
<td>GPA</td>
</tr>
<tr>
<td>8. Student Satisfaction</td>
<td></td>
<td>Faculty Survey</td>
<td>Demographic</td>
</tr>
<tr>
<td>9. Teacher/Course Evaluation</td>
<td></td>
<td>PSAS</td>
<td>Statistics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Faculty Survey</td>
<td>Teacher/Course</td>
</tr>
<tr>
<td>10. Program Characteristics</td>
<td></td>
<td>PSAS</td>
<td>Evaluations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Faculty Survey</td>
<td>Syllabi Review</td>
</tr>
</tbody>
</table>
### TABLE 3
Descriptions of Assessment Methods

#### Panel A: Learning Outcomes

<table>
<thead>
<tr>
<th>Assessment Method</th>
<th>Description</th>
<th>Reference Information (if applicable)</th>
<th>Tips (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement Test for Accounting Graduates (ATAG)</td>
<td>Provides an objective measure of advanced accounting knowledge in the areas of financial, managerial, auditing, cost accounting, taxation, and accounting information systems. Performance scores for a norm group of over 2,200 students are provided for benchmarking.</td>
<td>The Psychological Corporation, Harcourt Brace &amp; Company, 555 Academic Court, San Antonio TX 78204; (800) 211-8378</td>
<td>- Tough decisions may be required on how to effectively incorporate this test into the program. If not a graduation requirement or a component of a course grade, students may not be highly motivated. Faculty may not want to include it as part of their course. If not administered in a course, students may not attend.</td>
</tr>
<tr>
<td>College Basic Academic Subjects Exam (CBASE)</td>
<td>Measures proficiency in English, math, science, and social studies. Also measures cognitive skills of interpretive reasoning, strategic reasoning, and adaptive reasoning.</td>
<td>University of Missouri Assessment Resource Center, 2800 Maguire Blvd., Columbia MO 65201; (800) 366-8232 <a href="http://arc.missouri.edu">http://arc.missouri.edu</a></td>
<td>- Must administer long form of exam to obtain critical-thinking scores.</td>
</tr>
<tr>
<td>CPA Exam</td>
<td>Designed to measure professional knowledge in auditing, business law, taxation, and accounting. It tests (1) command of adequate technical knowledge, (2) ability to apply such knowledge skillfully and with good judgment, and (3) understanding of professional responsibilities.</td>
<td>National Association of State Boards of Accountancy, 150 4th Avenue North, Suite 700, Nashville, TN 37219; (615) 880-4200 <a href="http://www.nasba.org">http://www.nasba.org</a></td>
<td>- Can reduce burden of long-form testing by administering different parts of the exam to different students. Results will be group-based, as no one individual will complete an entire test booklet.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Assessment Method</th>
<th>Description</th>
<th>Reference Information (if applicable)</th>
<th>Tips (if applicable)</th>
</tr>
</thead>
</table>
| Employer Survey                       | Internally developed to measure (1) the extent to which employers of our graduates believe certain skills are essential for a successful business career and (2) the extent to which our graduates demonstrate these skills. | Georgetown University Assessment Survey (Pettit 1989)  
Measurement issues (reliability and validity) for locally developed instruments.                        |
| Student Survey                        | Internally developed to measure (1) the importance of certain skills, and (2) the extent to which students believe they have acquired these skills. | Georgetown University Assessment Survey (Pettit 1989)                                                  | Measurement issues (reliability and validity) for locally developed instruments.                         |
| Syllabi Review                        | Syllabi for all accounting undergraduate classes offered are reviewed to (1) determine the content and level of communication skills assignments and (2) evaluate the completeness of the undergraduate program curriculum. |                                                                                                       | Creating a matrix allows tracking over time and across courses.  
Some syllabi do not contain enough detail about specific assignments because faculty wish to maintain flexibility during the term.  
May have difficulty selecting an appropriate norm group and thus interpreting the results. |
| Watson-Glaser Critical Thinking       | Used to predict success in occupations where critical thinking plays an important role. The 40-item instrument uses 5 content areas to derive a single score representing an individual’s ability in inference, recognition of assumptions, deduction, interpretation, and evaluation of arguments. | The Psychological Corporation, Harcourt Brace & Company,  
555 Academic Court,  
San Antonio, TX 78204;  
(800) 211-8378 |                                                                                                       |

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### TABLE 3 (Continued)

#### Panel B: Student Characteristics and Educational Environment

<table>
<thead>
<tr>
<th>Assessment Method</th>
<th>Description</th>
<th>Reference Information (if applicable)</th>
<th>Tips (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AACSB/EBI Student Satisfaction Project</td>
<td>Performed for the entire College of Business. Designed to measure students’ satisfaction with undergraduate business programs. We selected a “norm” group for comparison from the list of participating schools.</td>
<td>AACSB—The International Association for Management Education web site http: //www.aacsb.edu</td>
<td>• The group of comparison schools may have to change over time because the same schools do not participate each year.</td>
</tr>
<tr>
<td>Accounting Aptitude Test (AAT)</td>
<td>Measures skills and abilities considered important for success in the study of introductory accounting. Consists of three parts: communication skills, quantitative skills, and problem-solving skills. Test is administered to introductory accounting students and results are compared to benchmarking data provided by The Psychological Corporation.</td>
<td>The Psychological Corporation, Harcourt Brace &amp; Company, 555 Academic Court, San Antonio, TX 78204; (800) 211-8378</td>
<td>• Separate analysis of accounting major responses is available for an additional fee.</td>
</tr>
<tr>
<td>Demographic Statistics</td>
<td>These statistics provide information on the diversity of the student base. We compare the statistics for accounting majors with those of the University and with those of other business majors.</td>
<td>Institutional Data</td>
<td>• May be hard to differentiate between low scores due to lack of knowledge and those due to lack of effort.</td>
</tr>
<tr>
<td>Faculty Survey</td>
<td>Internally developed and distributed to faculty to measure perceptions about the department’s mission, curriculum, faculty, instruction, research, students, and institution.</td>
<td>Contact the authors of this paper for a copy of the instrument.</td>
<td>• Measurement issues (reliability and validity) for locally developed instruments.</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Assessment Method</th>
<th>Description</th>
<th>Reference Information (if applicable)</th>
<th>Tips (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPA Scores</td>
<td>Collected for all business majors. Average scores by major provide a measure of our recruiting success relative to other College of Business departments.</td>
<td>Institutional Data</td>
<td></td>
</tr>
<tr>
<td>Program Self-Assessment Service (PSAS)</td>
<td>Administered to faculty, students, and alumni to evaluate the department on 15 dimensions. Results enable comparisons of perceptions across the three groups of respondents.</td>
<td>Educational Testing Service (ETS), Higher Education Assessment, Princeton, NJ 08541; (609) 951-1505 <a href="http://www.ets.org">http://www.ets.org</a></td>
<td>• Response rate of alumni is an issue.</td>
</tr>
<tr>
<td>SAT/ACT Scores</td>
<td>Collected for all introductory accounting students. Scores give baseline data and provide one indication of the probability of student success.</td>
<td>Institutional Data</td>
<td></td>
</tr>
<tr>
<td>Syllabi Review</td>
<td>See Panel A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher/Course Evaluations</td>
<td>Administered in all accounting classes. Reviewed by department chair.</td>
<td>See article on teaching evaluations by Green et al. (1998)</td>
<td></td>
</tr>
</tbody>
</table>
reasoning scores: interpretive, strategic, and adaptive. CBASE is a criterion-referenced test that can be used to identify strengths and weaknesses for a group of students as well as for individual students. Individual scores are returned directly to the students. We found that this provided motivation for the students to do well. Although the tests cannot be scored locally, the scoring costs are reasonable and the booklets can be reused.

Also available for assessing general knowledge are the College Outcome Measures Program (COMP) and the Collegiate Assessment of Academic Proficiency (CAAP) from the American College Testing Program (ACT), and the Academic Profile (AP) from ETS. The COMP is a two and one-half hour test that measures general education outcomes by focusing on the application of knowledge to real-life situations. Studies have indicated that the COMP exam is highly sensitive to precollege characteristics and relatively insensitive to instructional effects (Davis and Murrell 1989; Pike 1989, 1990), making it a less desirable choice. The CAAP is also designed to measure general education skills. There are six 50-minute modules: writing (essay and objective), mathematics, reading, science reasoning, and critical thinking. The AP, co-sponsored by the College Board, includes a total score and subscores in the following areas: humanities, natural science, social science, reading, writing, and critical thinking.

We selected the CBASE because it provides more comprehensive information through a composite score, four general education subject scores, and three reasoning scores. In addition, according to Nichols (1991a), the exam has been used by a number of institutions to evaluate programs—the primary focus of our assessment.

**CPA Examination**

One measure of the success of the undergraduate degree program may be the percentage of accounting graduate-candidates who pass the CPA Exam. This exam is designed to measure professional responsibility and knowledge in auditing, business law, taxation, and accounting. However, Herring and Izard (1992) point out that the usefulness of CPA Exam results as a measure of program success may be marginal for several reasons. Self-selection bias is an issue (perhaps only the top students in a program choose to sit for the exam). Furthermore, since the exam cannot be taken until after graduation, it cannot provide timely indications of curricular strengths and weaknesses. Even with these limitations, we chose to use it because it is an inexpensive and commonly used indicator of accounting knowledge. We collect this information annually from the reports of the National Association of State Boards of Accountancy.

**Watson-Glaser Critical Thinking Appraisal (WGCTA-S)**

We originally used the WGCTA-S to measure critical-thinking skills. It is a short version of one of the most widely used critical-thinking measures. The exam has five content areas: inference, recognition of assumptions, deduction, interpretation, and evaluation of arguments. The exam can be completed in 50 minutes, and reportedly has high reliability. Administrative costs are reasonable, tests can be scored locally, and test booklets reused. However, we had difficulty selecting a norm group because the group results were not based on students from other institutions (the test is frequently administered to managers with college degrees). As a result, we had trouble interpreting the results and discontinued use of the WGCTA-S
in favor of using the CBASE to provide measures of reasoning ability.

Two alternative tests for assessing students' critical-thinking skills are the Cornell Critical Thinking Test and the California Test of Critical Thinking Skills. However, the CBASE provides three scores of reasoning skills in addition to subscores of general knowledge. Thus, we decided to use one exam to address two learning outcomes.

**Surveys**

We use written surveys to capture indirect measures of communication skills, intellectual skills, interpersonal skills, organizational and business knowledge, accounting knowledge, student satisfaction, and program effectiveness. DeMong et al. (1994) argue that surveys can be an excellent tool for an assessment program. We found that surveys permit us to gather data related to specific aspects of our learning outcomes. Standardized tests do not always allow for such tailored responses. Hence, we designed written surveys targeted for current students and employers of our graduates. Both audiences may be considered our “customers.” In addition, we have used the program assessment surveys from ETS to collect data from current students, faculty, and alumni.

**Customer Surveys**

We conduct surveys of employers and current students to determine satisfaction with our accounting program. One survey instrument was patterned after the Georgetown University Assessment Survey (Pettit 1989). Our employer survey is intended to measure (1) the extent to which employers of our accounting graduates believe specific skills are essential for a successful business career, and (2) the extent to which employers believe our accounting graduates demonstrate these skills. Opinions regarding 13 skills are requested (business writing, oral communication, teamwork skills, critical thinking, quantitative ability, organizational and business knowledge, planning skills, computer skills, creativity, leadership, marketing, accounting knowledge for the CPA Exam, and accounting knowledge for entry-level positions). The related student survey is intended to measure (1) the importance of the 13 skills and (2) the extent to which the students believe they have acquired the skills. The results of these surveys allow us to identify critical skills for employment in the marketplace and to assess the degree to which our students demonstrate or believe they have acquired these skills.

**The Program Self-Assessment Service (PSAS)**

The PSAS from the ETS is designed specifically to help departments carry out program reviews at the undergraduate level. It is composed of three separate questionnaires targeted for alumni, current students, and faculty. Respondents provide their opinions about: program purposes, the learning environment, curriculum, faculty activities, student accomplishments, and departmental procedures. Test booklets are sent to ETS for processing. ETS, in turn, provides a profile of 15 dimensions of the responses. We found the 70-page report very helpful in identifying areas needing attention (discussed under “Program Characteristics” in the next section).

An alternative to the PSAS is the ACT Evaluation/Survey Service (ESS). This service includes 15 survey instruments. These instruments have been

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11 ETS also has a package designed for graduate-level programs.
offered since 1979, and ETS makes available normative data. Several are designed for audiences not addressed by the PSAS, including entering students, withdrawing students, and students admitted but not enrolling. However, there is no faculty survey. In addition, several of the surveys are not focused on program assessment. We selected the PSAS because the primary objective is to aid in program development and the questionnaires solicit opinions from those most directly involved with the program: faculty, current students, and alumni.

Faculty Survey
At the beginning of our assessment program, prior to using the PSAS, we designed our own faculty survey instrument. The questionnaire included 48 objective questions and four open-ended questions focused on missions/objectives, curriculum, faculty, instruction, research, students, and the institution. This survey provided a wealth of information about the "state of the program" at the beginning of our assessment activities. However, although locally developed instruments are useful to address specific areas of interest, they raise issues of reliability and validity.

AACSB/EBI Student-Satisfaction Project
The College of Business participates in a student-satisfaction assessment sponsored by the AACSB. At the undergraduate level, graduating seniors complete a survey that is analyzed by Educational Benchmarking, Inc. (EBI). The EBI report provides means for our department, all participating schools, public schools only, and private schools only. In addition, we are able to select a group of six schools for comparison, using detailed charts and graphs to compare our results with theirs. The questions focus on the entire business program, and all business majors participate. Several questions specifically ask for satisfaction with the accounting courses required in the business program. The cost of participating in this project is significant (as of this date $895 for the first 250 students). For an additional fee (as of this date $250), EBI also will do an analysis of the responses of accounting majors only.

Course-Embedded Techniques
We use the following course-embedded techniques to assess communication skills, teaching performance, and program characteristics.

Syllabi Review
We review course syllabi to: (1) assess the type (oral vs. written) and depth of communication assignments in the undergraduate degree courses, and (2) evaluate the overall curriculum structure. By putting the syllabi information into a matrix with degree objectives, we are able to get a good overall picture of our curriculum.

Teacher/Course Evaluation
All faculty are required to administer teacher/course evaluations in every course every term. The feedback is used to improve both teaching and course content. Responses to two global questions (related to the overall quality of the professor and the course) are reported for promotion and tenure decisions and

12 The individual comparison schools are not identifiable in the charts and graphs.
13 Our department used a teacher/course evaluation prior to the beginning of our formal assessment program. We are currently testing a new form that provides more detail than the previous one. The test of this new form began in response to results from our assessment program.
for annual reviews of faculty. Detailed feedback (including responses to open-ended questions) is used for faculty development purposes only.

ETS offers the Student Instructional Report (SIR). It is a reasonably priced, brief questionnaire administered to gather student responses to a course. Instructors may add some of their own questions. ETS, which processes the data, makes reports available in three weeks. They offer separate national comparative data for two- and four-year schools, and a variety of report formats.

Institutional Data

Some institutional data about student characteristics and the educational environment are also available. On an annual basis we request SAT and GPA scores, by discipline, for all students currently enrolled in the College of Business. With these scores, we are able to compare our enrolled accounting majors to majors in other disciplines. In addition, we request demographic information on the accounting students to provide information on diversity.

USING ASSESSMENT RESULTS

We have performed formal assessment activities for seven years. During this period, we have made many changes to our program based on the results of the assessment process. The results of our most recent assessment activities are shown in Table 4. These results are for the population as a whole. We did not analyze results by subcategories, such as gender and ethnicity. For each learning outcome and assessment method, we established a target score—the level of performance we think should be met. The specific measures differ by method, but in general we aspire to above-average performance on all learning outcomes. The actual result obtained for each item is also shown in Table 4, which indicates whether actions have been taken (or planned) in light of these latest results.

Communication Skills

Consistent with the accounting literature, our employers and students identified oral communication and business writing as very important skills. However, as shown in Table 4, we did not achieve our target level of performance on the multiple measures of communication skills. Action Taken to Improve Performance: Put a greater emphasis on communication by requiring oral and written assignments in all upper-level accounting classes. Specific Example: Student teams in the international accounting course are called on at random in each class to stand and make a brief presentation in response to end-of-chapter questions and cases.

Intellectual Skills

Employers and students identified critical-thinking skills as very important. Again, we did not achieve the target scores on the intellectual skills performance dimension. Action Taken to Improve Performance: Put a greater emphasis on building critical-thinking skills in classroom activities and assignments in all accounting classes. Specific Example: A financial-statement-analysis project, including preparation of an Excel spreadsheet and a written report explaining the resulting recommendations, is required in the advanced financial accounting course.

In the spirit of continuous improvement, we have raised our target scores, from 3.75 to 4.0, for the employer and student survey items since implementing our assessment program.
TABLE 4
Most Recent Actual vs. Target Results

<table>
<thead>
<tr>
<th>Panel A: Learning Outcomes</th>
<th>Method</th>
<th>Target Score</th>
<th>Actual Score</th>
<th>Action Item</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Communication</td>
<td>Employer Survey</td>
<td>4.0 (scale 1–5)</td>
<td>3.94</td>
<td>Yes</td>
</tr>
<tr>
<td>- Oral communication</td>
<td>Student Survey</td>
<td>4.0 (scale 1–5)</td>
<td>3.63</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Syllabi Review (assignments)</td>
<td>100%</td>
<td>25%</td>
<td>Yes</td>
</tr>
<tr>
<td>- Business writing</td>
<td>CBASE (English)</td>
<td>Above average</td>
<td>Average</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Employer Survey</td>
<td>4.0 (scale 1–5)</td>
<td>3.44</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Student Survey</td>
<td>4.0 (scale 1–5)</td>
<td>3.55</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Syllabi Review (assignments)</td>
<td>100%</td>
<td>42%</td>
<td>Yes</td>
</tr>
<tr>
<td>2. Intellectual</td>
<td>CBASE</td>
<td>Above average</td>
<td>Not available</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>WGCTA-S</td>
<td>50th percentile</td>
<td>30th percentile</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Employer Survey</td>
<td>4.0 (scale 1–5)</td>
<td>3.69</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Student Survey</td>
<td>4.0 (scale 1–5)</td>
<td>3.98</td>
<td>Yes</td>
</tr>
<tr>
<td>3. Interpersonal</td>
<td>Employer Survey</td>
<td>4.0 (scale 1–5)</td>
<td>4.12</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Student Survey</td>
<td>4.0 (scale 1–5)</td>
<td>4.14</td>
<td>No</td>
</tr>
<tr>
<td>4. General Knowledge</td>
<td>CBASE</td>
<td>Above average</td>
<td>Average</td>
<td>Yes</td>
</tr>
<tr>
<td>- English</td>
<td>CBASE</td>
<td>Above average</td>
<td>Above average</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Social Studies</td>
<td>Average</td>
<td>Average</td>
<td>No</td>
</tr>
<tr>
<td>5. Organizational and Business Knowledge</td>
<td>Employer Survey</td>
<td>4.0 (scale 1–5)</td>
<td>3.19</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Student Survey</td>
<td>4.0 (scale 1–5)</td>
<td>3.87</td>
<td>Yes</td>
</tr>
<tr>
<td>6. Accounting Knowledge</td>
<td>ATAG</td>
<td>50th percentile</td>
<td>30th percentile</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>CPA Exam Scores</td>
<td>14.5% all parts</td>
<td>33.3% all parts</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Employer Survey</td>
<td>4.0 (scale 1–5)</td>
<td>3.43</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Student Survey</td>
<td>4.0 (scale 1–5)</td>
<td>3.83</td>
<td>Yes</td>
</tr>
</tbody>
</table>

(Continued on next page)
<table>
<thead>
<tr>
<th>Objective</th>
<th>Method</th>
<th>Target Score</th>
<th>Actual Score</th>
<th>Action Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Student Characteristics</td>
<td>AAT</td>
<td>50th percentile</td>
<td>47th percentile</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>SAT–Verbal</td>
<td>500</td>
<td>500</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>SAT–Math</td>
<td>500</td>
<td>510</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>GPA</td>
<td>3.0</td>
<td>3.03</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Demographics</td>
<td>Diversity</td>
<td>Lacks diversity</td>
<td>Yes</td>
</tr>
<tr>
<td>8. Student Satisfaction</td>
<td>PSAS (students)</td>
<td>3.0 (scale 1–4)</td>
<td>3.48</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>PSAS (alumni)</td>
<td>3.0 (scale 1–4)</td>
<td>3.24</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>AACSB/EBI Project</td>
<td>4.0 (scale 1–7)</td>
<td>4.43</td>
<td>No</td>
</tr>
<tr>
<td>9. Teacher/Course Evaluation</td>
<td>Teacher/Course Evaluations</td>
<td>3.0 (scale 1–4)</td>
<td>3.07</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Faculty Survey</td>
<td>NA—open-ended question</td>
<td>Dissatisfaction</td>
<td>Yes</td>
</tr>
<tr>
<td>10. Program Characteristics</td>
<td>• Curriculum</td>
<td>PSAS (alumni)</td>
<td>3.0 (scale 1–4)</td>
<td>2.82</td>
</tr>
<tr>
<td></td>
<td>• Departmental procedures</td>
<td>PSAS (alumni)</td>
<td>3.0 (scale 1–4)</td>
<td>2.87</td>
</tr>
<tr>
<td></td>
<td>• Resource accessibility</td>
<td>PSAS (alumni)</td>
<td>3.0 (scale 1–4)</td>
<td>2.81</td>
</tr>
<tr>
<td></td>
<td>• Employment assistance</td>
<td>PSAS (alumni)</td>
<td>3.0 (scale 1–4)</td>
<td>2.36</td>
</tr>
<tr>
<td></td>
<td>• Faculty research activities</td>
<td>PSAS (faculty)</td>
<td>33%</td>
<td>26%</td>
</tr>
</tbody>
</table>
Interpersonal Skills
Employers and students rated teamwork skills as very important. The actual scores on the employer and student surveys exceeded the targets. Action Taken to Improve Performance: No change.

General Knowledge
Our students' scores met the targets in the mathematics and social studies areas, but not in English. Action Taken to Improve Performance: No change related to mathematics or social studies. The increased emphasis on communication skills mentioned earlier should help in the English area as well.

Organizational and Business Knowledge
The responses of both employers and students regarding student knowledge in this area were below the target. While the students rated organizational and business knowledge as very important, it is interesting to note that the employers did not rank this skill as one of their top six. Action Planned to Improve Performance: Use a standardized exam to evaluate our students' level of skill.

Accounting Knowledge
The results of our assessments of accounting knowledge were mixed. Although our CPA Exam pass rate was well above the target (the 14.5 percent U.S. average), the ATAG scores ranked in only the 30th percentile, and the employer and student scores were less than our target. Action Taken to Improve Performance: Monitor the ATAG scores by subject area to identify the need for course revisions. Specific Example: The accounting information systems course is now a requirement rather than an elective.

Student Characteristics
We met our targets for SAT scores and GPAs. The average GPA and SAT scores for students enrolled in accounting are generally higher than the scores of students in other disciplines in the College of Business. However, we missed the targets for AAT scores and student diversity. Action Taken to Improve Performance: Require an additional math class as a prerequisite to our second introductory accounting course. Specific Example: Completion of a calculus course is now a prerequisite to the second introductory accounting course. Action Planned to Improve Performance: Investigate ways to increase the number of minority, male, and non-traditional accounting majors. 15

Student Satisfaction
The results on the student satisfaction measures were higher than the targets. Action Taken Improve Performance: No change.

Teacher/Course Evaluation
The actual ratings for teachers/courses exceeded our target. However,

15 We have concluded that we need to start assessing the performance and satisfaction of subgroups of the population of accounting majors. Specifically, we plan to investigate differences by gender and ethnicity to determine whether changes are needed to attract and retain a more diverse group as accounting majors. The AACSB/EBI Student Satisfaction Project can provide a separate report of results from accounting majors only, at an additional cost. Our department chair has ordered this information for the first time. Since some of the data in this report are provided by gender and ethnicity, we will have our first set of data on this issue to analyze in our next assessment cycle.
faculty expressed considerable dissatisfaction with the evaluation form and with the limited teaching feedback.

Action Taken to Improve Performance: Implement a new teacher/course evaluation form.

Action Taken to Improve Performance: Implement a faculty peer-review process.

Program Characteristics
We used multiple methods to assess the extent to which our program meets the needs of employers, alumni, and current students. Of them all, we found the PSAS alumni and faculty responses to be the most comprehensive and helpful. From these two sources we identified five areas where our performance did not meet our targets: curriculum, departmental procedures, resource accessibility, employment assistance, and faculty research.

Curriculum
Action Taken to Improve Performance: Provide department chair with feedback on alumni concerns about course scheduling related to the variety of course offerings and the flexibility of the program.

Action Taken to Improve Performance: Create more opportunities for individual projects and interdisciplinary activity. Specific Example: Our students complained that they were required to participate in too many team projects. They were having difficulty scheduling meetings with multiple teams in the same term. The faculty agreed to convert some projects to individual assignments or to make team participation optional.

Action Planned to Improve Performance: Measure graduation and retention rates as part of institutional data collection.

Departmental Procedures
Action Taken to Improve Performance: Establish a strong and visible advising team to help students.

Action Taken to Improve Performance: Revise the teacher/course evaluation process.

Resource Accessibility
Action Taken to Improve Performance: Establish a Beta Alpha Psi chapter to provide interaction for students.

Action Taken to Improve Performance: Have faculty announce in class the availability of scholarships.

Employment Assistance
Action Taken to Improve Performance: Have faculty members increase their efforts to network in the business community. Specific Example: The number of faculty presentations at CPA society meetings has increased.

Action Taken to Improve Performance: Have faculty announce job opportunities in class.

Action Taken to Improve Performance: Have faculty inform students in class of the University career services office and of the value of on-campus interviewing.

Faculty Research
Action Taken to Improve Performance: Clarify to current faculty the requirement that all faculty members must participate in scholarly activities.

Action Taken to Improve Performance: Make sure the research requirement is considered in recruiting and hiring decisions. Specific Example: Research productivity is now more heavily weighted in prescreening faculty candidates and in evaluating those invited to interview.
ASSESSING THE ASSESSMENT PROGRAM

Annually, at the end of each assessment cycle, the assessment team evaluates the effectiveness of the assessment program itself. As our experience with formal assessment has grown, we have become more effective and efficient in implementing the various assessment techniques. First-hand experience has provided insights we could not obtain solely from reading the literature or product descriptions. As a result, we have been able to make changes to improve the assessment program.

We are continually looking for better methods to assess items we already assess, as well as effective methods to use for items not currently assessed. For example, we discontinued the use of the Watson-Glaser test for assessing critical thinking and replaced it with the CBASE, because we felt the norm group was more appropriate. In addition, the CBASE has the advantage of measuring communication skills and general knowledge in addition to critical thinking.

In 1999, we signed up as a founding partner with the American Accounting Association (AAA) for its new Accounting Program Administration Benchmarking Study. The objective of this study is to provide an opportunity to document department strengths and areas for improvement. Questions covered these areas: institutional and program information (including budget and structure), faculty, curriculum, student, and student-career information. We were allowed to select four schools for comparison purposes. The results are not yet available. Although there is overlap in topics with the AACSB/EBI benchmarking project, additional insights should be possible since the data relate solely to accounting programs.

Since we began our assessment program, we have considered using portfolio analysis as a method for assessing communication skills. Each year we reconsider its use. Apostolou (1999) includes portfolio analysis in the category of "performance assessment" methods. Proponents argue that methods like this provide a direct measure of skill (compared to an indirect measure resulting from an employer survey, for example) and measure higher levels of learning than do standardized tests. However, her article also points out the risk of litigation associated with these approaches if "the evaluators are not trained, consistent and objective across all students" (Apostolou 1999, 190). Given our limited resources for assessment, to date we have chosen not to use portfolio analysis because of its labor intensity.

Another issue that we have discussed each year as we evaluate our assessment program relates to "value added." In addition to the major goal of a degree program to turn out graduates who meet or exceed the desired level of competence in the various learning objective areas, there is the question of how much value was added by the degree program. Do the students meet the desired learning outcomes because the program was successful in developing them? Or did the students have these capabilities when they entered the program?

To determine the "value added" by the program, student capabilities must be measured over time. The most straightforward approach would be to test them at the beginning of the program and again the end of the program. To date, we have not chosen this approach because of our limited resources...
and because our graduates have expressed overall satisfaction with the value of their education. We have preferred to administer two different assessment tools rather than the same assessment tool to the same group at two different times, because our highest priority has been assessing whether our students exhibit the capabilities we believe they need to be successful. If they do not, it is a hollow victory to say we added value. Nevertheless, each year the review of the assessment program includes discussion of whether to change it to explicitly measure value added by incorporating multiple administrations of a given assessment tool. Programs that have high tuition may need to focus more on the value-added issue.

**ASSESSMENT LESSONS LEARNED**

During our assessment experience since 1993, we have learned important lessons. Some of these lessons can be found in the literature, but they became more real to us as we lived through them. Others are based on our personal experiences with starting an assessment program from scratch. Although different circumstances will lead to different experiences and assessment programs, we have tried to identify some “big-picture” points that may be useful to other faculty who are not assessment experts and who face a similar challenge.

1. Assessment is not easy. There is not a simple activity in this process. First, faculty must agree on the objectives of the program. Responsibility must be established, methods selected, and data collected. Making sense of the results is difficult, and taking specific actions may be the most difficult part of the process. Do not expect assessment to be a quick fix.

2. Take the time to develop a plan. Two members of our faculty team spent one summer developing a rather comprehensive plan. This involved reading a wealth of materials on assessment in general and looking at other models. The time was well spent, however, because additional faculty were more willing to participate when the tasks were well documented (e.g., there is no wasted time in directionless meetings).

3. Get top-level support. From the start, be sure to have the full support of your department chair and dean. As with any initiative, if faculty members perceive that assessment does not have top-level support, they will not actively engage in the activities and will not work to implement resulting action items. The final effect can be that assessment will not be taken seriously. To get this support, provide information about the increasing focus on assessment by the public, legislatures, accrediting bodies, and the accounting education community. Point out that assessment data showing high performance can be used in public-relations material, and assessment data showing less-than-desirable performance can be used as hard evidence to justify requests for additional funding. In addition, improved impact on students leads to better jobs sooner and more appreciative alumni.

4. Establish shared responsibility for assessment. Assessment should not be the sole responsibility of the administration. Our Board of Regents mandated faculty responsibility and involvement. This puts
assessment where the action is and increases the chances of improving the education process.

5. Have an assessment champion. Enlist a faculty member who is willing to do whatever it takes to lead the effort to plan, implement, and report on the departmental assessment activities. Without this commitment, the assessment activities can be lost in the shuffle of campus life.

6. Reward faculty for assessment work. For assessment to succeed, whole-hearted faculty involvement is needed. Rewards signal the importance of the process. Our college pays for workshops and travel to assessment conferences and counts our assessment involvement in the annual evaluation process. Assessment committee members receive credit in the “service” area for their annual reviews.

7. Anticipate something less than enthusiasm from some of your faculty. Everyone may say continuous improvement is important. However, everyone may not be willing to be involved in assessment activities such as testing, interviewing, etc. Faculty members are busy, and assessment is one more item to add to already full agendas.

8. Do not attempt too much at one time. Designing an assessment program, implementing the activities, and trying to turn the program into a vehicle for continuous improvement can be overwhelming. Once the design is in place, implement the plan in yearly increments, rather than doing it all at once. Individual parts can give off a feeling of success. Put the activities into a matrix to impose order and “check off” items completed each year.

9. Focus on some of the things that are right. If the focus of the assessment activity is to highlight only things that are wrong with the program, discouraged faculty may lose interest in the entire process. Be sure to highlight things the program is doing successfully.

10. Consider starting with a “buck-shot” approach. Limited resources prevent assessment of every item of interest. When choosing where to begin, programs can either make extensive assessment of one or two dimensions or do a more basic assessment of several dimensions. In the early years, we tried to capture basic data on as many dimensions of our program as possible. Not only did this give us baseline information useful for comparison in later periods, but it also allowed us to learn more about our program, our students, their employers, and our educational environment. An understanding of these factors is essential to implementing a successful assessment program, but remember to focus on issues of high priority. There are an unlimited number of learning outcomes to measure and ways to measure them, so do not waste limited resources on low-priority items simply because they are easy to assess.

11. Use multiple measures. Think about assessment as a camera—taking shots of your subject at different times and from different angles. Remember that you are aiming at a moving target. Plan to use multiple measures to capture different aspects of your program over time. It is not necessary to use the same methods each year.

12. Be specific in stating learning outcomes. Developing general learning outcomes, such as “accounting
knowledge," makes it difficult to evaluate specific competencies. For instance, many of the assessment tools (e.g., ATAG) give general measures of accounting knowledge, but if the scores are low, they may not direct you to changes needed in specific courses.

13. Assign specific assessment tasks during the annual planning phase. Get assessment team members to take responsibility for specific tasks. This provides some assurance that the task will actually be accomplished. In addition, as faculty take an active role, they begin to value the assessment process.

14. Focus on group results rather than individual student results. A group focus allows you to capture and understand your program strengths and weaknesses without incurring the additional cost (in time and money) to focus on individual students. For example, in the standardized CBASE test, rather than using one group of students who sit for several hours, several groups can sit for one hour (i.e., each individual completes one section of the test). Similarly, using portfolio analysis, you can collect class samples across the entire curriculum to avoid the collection and storage of individual students' work (i.e., comparing the quality of introductory course work to advanced course work).

15. Nationally normed standardized tests may not meet your needs. Faculty members may not believe that all test questions on a particular standardized exam result in a legitimate measure of student knowledge or ability. The alternative is to write your own test. However, this can be very time-consuming and expensive, and the resulting test may lack reliability and norms.¹⁶

16. Scheduling exams can be difficult. We administer the AAT at the start of the first accounting class, which works well. However, scheduling other exams (WGCTA-S, CBASE, ATAG) for seniors is more difficult. We have many part-time students in a flexible program structure. Senior students are scattered across a number of courses. Students may not be willing to take time outside of class and faculty may not be willing to give up class time for assessment.¹⁷

17. There is a reluctance to use assessment results. Changing the education process is hard and involves time, effort, and commitment. Faculty may actually resist change. It is easy to file the assessment reports and fail to put the recommendations into practice. However, continuous improvement necessarily implies change, and the assessment data are critical to the change process. One key is to keep the assessment process active and focus faculty discussion on the results.

18. The landscape is constantly changing. Assessment is a work in process. The AACSB is moving toward a more competency-based model for its accounting department accreditation process. As we are required to demonstrate that our students have certain competencies, our assessment process will need to address those specific competencies.

CONCLUSION

This paper describes the accounting assessment program at a large, public university. Our program has the following characteristics:

¹⁶ Gainen and Locatelli (1995, 74) do a good job of identifying the advantages and disadvantages of standardized exams vs. locally developed exams.

¹⁷ This is where a group-scoring approach can be beneficial (refer to “Assessment Lessons Learned,” number 14).
1. It was designed and implemented by the faculty.
2. It uses a team approach involving a large percentage of the faculty, which gets "buy-in" and distributes the work.
3. The learning outcomes are consistent with the department’s mission and the needs of the accounting profession.
4. Multiple measures are selected for data collection and target scores are set.
5. The assessment methods are reasonably cost-effective.
6. The assessment activities result in action items focused on continuous improvement in the program.

This program will not fit every institution’s needs, because it is based on our mission, priorities, and expectations, and it is constrained by our resources. Nevertheless, it provides a comprehensive example of how an assessment program can be developed and executed. In addition, the paper provides detailed information on a number of different assessment methods, including where to find them, and tips to improve implementation.

REFERENCES


