

Assessment Practices in Undergraduate Accounting Programs

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ABSTRACT

This study examined accounting program assessment plans at 102 colleges and universities in the United States. The research focused on identifying assessment practices in undergraduate accounting programs by examining the skills and competencies assessed and determining the methods of assessment used. The study also investigated what course and/or program changes were made as a result of the assessment findings. Responses were analyzed by three independent variables to determine whether significant differences existed due to Carnegie classification, region, or size (enrollment). Significant differences were discovered in the direct and indirect assessment instruments used to measure student learning, in the use of assessment data to make changes and improvements, and in the nature of those assessment related changes and improvements reported by the participants. Assessment audiences and methods used for dissemination of assessment results were also significantly different. The major findings of this study offer evidence of the development, refinement, and understanding of the assessment process at the majority of the reporting accounting programs.

Keywords: assessment, assessment plans, accounting programs, learning outcomes, assessment methods

INTRODUCTION

The current assessment movement in the United States began in the late 1980s. Advocates of assessment believed that education should be a goal-driven process that uses learning outcomes to measure quality. Constituents want external demonstrations of what students have learned and what they can do. How programs of study contribute to students' knowledge and skills, and how the learning experience can be enhanced are concerns that should also be addressed by the assessment process (Carnevale & Porro, 1994; Jones, 1996; Palomba & Banta, 1999).

A major reason for assessment is to ascertain how academic programs contribute to student learning and development. Through assessment, educators can determine whether students are developing desired competencies and values, whether the curriculum provides the vital knowledge and skills of the discipline, and whether students can integrate learning from individual courses into a complete educational experience that prepares them for their careers. Relevant and timely assessment data that focus on student learning should be continually collected and analyzed to document improved student learning resulting from curricular and program changes (Huba & Freed, 2000; Maki, 2002a; & Martinson & Cole, 2002).

Higher education constituents' demands have contributed to increased research efforts that examine educational programs and document changes and improvements in student learning in higher education resulting from continuous self-examination studies and the development of formal assessment plans. (Hindi et al, 2000). Martinson and Cole contend that both external and internal pressures have caused greater recognition of the need to develop formal assessment programs (2002).

STUDY DESIGN

This research is based on 102 responses to a questionnaire mailed to 786 chairs and administrators of accounting programs to gather information about the programs' assessment plans. The study population was identified in the *Hasselback Accounting Faculty Directory* (2004). The survey instrument was divided into 7 sections and contained 82 questions. The first section consisted of 12 demographic questions about the type, accrediting organizations, and enrollment in the accounting programs to establish the three independent variables (Carnegie classification, region, and size) used to analyze the data. Percentages were calculated and summarized by the three treatment groups. Questions in the remaining 6 sections collected responses on specific components of the assessment process: student learning outcomes, assessment activities (methods), assessment results, assessment related changes and improvements, assessment audiences, and methods of dissemination of assessment results. Responses to these questions were collected on a five point Likert scale as follows: 1-Extensively, 2-Often, 3-Somewhat, 4-Very Little, and 5-Not At All. Means and standard deviations were computed, and an analysis of variance (ANOVA) determined whether significant differences existed due to Carnegie classification, region, or size.

The Carnegie classifications for colleges and universities were used to identify the institutions as: (1) doctoral, (2) master's, or (3) baccalaureate. Questionnaires were mailed to 207 doctoral, 406 master's, and 173 baccalaureate institutions (See Table 1) with 102 responses. Doctoral universities returned 20, master's institutions returned 53, and baccalaureate colleges returned 29 surveys for an overall response rate of 13%.

Institutions were separated into one of six categories according to the accrediting organization region of each institution (Middle States, New England, North Central, North West, Southern, and Western). Of the institutions that were mailed surveys, 149 were located in the Middle States region, (See Table 1, Appendix), the New England region included 55, the North Central region comprised 251, the North West region contained 37 institutions, the Southern region included 240 programs, and the remaining 54 institutions were in the Western region. Responses included 18 from the Middle States region, 1 from the New England area, and 46 from the North Central region. The North West region returned 5, the Southern area returned 27, and the Western institutions returned 5 of the questionnaires mailed with a total response rate of 13%. The responses from the New England (n = 1), North West (n = 5), and Western (n = 5), regions were excluded from the analyses of Variance (ANOVA) by region conducted in this study due to insufficient response rates.

Student enrollment ranges were determined and Table 1 completed after analyzing responses to demographic survey questions on the survey. Reported enrollment at the participating programs ranged from as few as ten students to as many as 1200. The small category cutoff was set at 199; the range for the mid-size category was established between 200 and 400; and the range for the large group was set at greater than 400 encompassing programs with enrollment of 400 to 1200 students. Grouping the programs in these categories permitted a faithful representation of enrollment at the participating accounting. The small enrollment category included 43 responses; the mid-size category represented 38 responses; and the large category encompassed 11 responses. Ten programs did not indicate enrollment size.

ASSESSMENT PLAN STAGE OF DEVELOPMENT

Public institutions of higher education are required to undergo a self-evaluation process to provide evidence of student learning and improvement in the quality of education. Performance based assessment provides evidence of the development of the skills and knowledge that educators, employers, governmental agencies, and other stakeholders have deemed critical for students to possess for successful careers (Banta, 2002; Ewell, 2003; Schwartz & Robinson, 2000; Marchese, 1991).

Study participants were asked to indicate the level of development for their accounting program assessment plans. The answer choices were: not created, will develop soon, in the development stage, plan has been developed, and plan implemented. Percentages were calculated and summarized by the three treatment groups, Carnegie classifications, region, and size.

Of the 96 institutions represented in this study, 86 reported that they had either implemented assessment plans, or they were somewhere in the process of creating plans. All doctoral institutions responding to the survey were involved in the assessment process with approximately 52% having already developed and/or implemented assessment plans. About 88% of the master's were involved in the assessment process, and 48% already had assessment plans in place or had developed plans. The baccalaureate program administrators reported that 85% had begun the assessment process, and 45% of them had developed or implemented assessment plans.

Examining responses by location, 88% of the Middle States accounting programs reported they were involved in assessment, and 29% had either developed or implemented plans.

The North Central region reported that 93% had created assessment plans, and more than 53% of the programs' plans were developed or had been implemented. Of the Southern region responses, 78% were involved in the assessment process, and 52% had developed or implemented assessment plans.

Accounting programs in the small category reported that 84% were committed to assessment with 38% of them in the process of developing or implementing assessment plans. The mid-size programs reported that 92% were already involved in assessment, and 63% had developed or implemented assessment plans. All of the programs in the large group reported that they were involved in the assessment process, and 36% had implemented assessment plans.

ACCOUNTING PROGRAM ASSESSMENT PLAN CHARACTERISTICS

The Handbook of Accreditation of the Commission on Institutions of Higher Education of the North Central Association (NCA) developed the "Hallmarks of Successful Programs to Assess Student Academic Achievement" (2006). The NCA principles advise that a successful assessment plan must flow from the institution's mission. It must reflect faculty ownership/responsibility, and garner institutional-wide support.

Chairs of the accounting programs were asked about certain characteristics of the assessment plans including 1) whether the accounting program had a clear explicitly stated purpose that guided assessment, 2) how extensively assessment data were collected and analyzed, 3) whether assessment focused on student learning, 4) whether assessment focused on accountability, 5) if student learning outcomes reflected the program's goals and objectives, and 6) were student learning outcomes aligned with the institution's mission and values? To determine whether significant differences existed in the three independent variables (Carnegie classifications, region, and size), responses were analyzed on a Likert scale of 1-5 as follows: 1-Extensively, 2-Often, 3-Somewhat, 4-Very Little, and 5-Not At All.

Respondents reported that a clear explicitly stated purpose guided assessment extensively in the doctoral programs and often at the master's and baccalaureate institutions. Student learning outcomes reflected the institution's mission and its values; assessment data were collected and analyzed; and assessment focused on student learning often at all three classifications. Assessment focused on accountability often at the doctoral institutions and somewhat at the master's and baccalaureate programs. Participants also indicated that student learning outcomes often reflected the accounting programs' goals and objectives for learning at the master's and baccalaureate institutions, and extensively in the doctoral programs.

When analyzed by region, the accounting programs often had a clear explicitly stated purpose that guided assessment; student learning outcomes reflected accounting program goals and the institutions' mission and values often; and assessment often focused on improving student learning at all of the programs in all regions. Assessment data were collected and analyzed somewhat in the Middle States region and often at the North Central and Southern regions. Assessment focused on accountability somewhat in the North Central region programs, and accountability was often the focus of assessment at the Middle States and Southern regions.

By size, the responses indicated that the accounting programs in all size categories often had a clear explicitly stated purpose that guided assessment and assessment focused on improving student learning. Student learning outcomes, also, reflected the programs' goals and the institutions' mission and values often in these programs. Participants reported that assessment data were collected and analyzed somewhat at the programs in the small group, and

often at the mid-size and large ones. Accountability was often the focus of assessment at mid-size programs and somewhat at small and large ones.

FREQUENCY OF ASSESSMENT ACTIVITY

Accrediting organizations require institutions of higher education that receive federal funding to engage in some form of assessment, but they do not prescribe a particular type or model. An institution must design an assessment plan tailored to fit its needs (Palomba & Banta, 1999).

Department chairs were asked to indicate how often assessment occurred at their institutions by selecting one of the following answer choices: 1) Episodic, 2) Periodic, or 3) On-going. Episodic assessment is defined as assessment activity that occurs during program review, for accreditation purposes, or as needed. Periodic assessment is defined as occurring periodically, but it is not an integral part of the accounting program, and on-going assessment is a routine activity in the program. Respondents indicated that 90% of them had either implemented assessment plans, or they were somewhere in the process of creating plans.

Of the 86 accounting programs that conducted assessments, 55% reported that assessment was an ongoing, routine activity. Survey results for the doctoral institutions revealed that 23% of the doctoral programs reported episodic assessment activity, 12% reported periodic, and 65% reported on-going assessment activity. The findings also showed that 21% of the master's programs reported episodic assessment activity, 33% reported periodic, and 46% reported on-going assessment activity. The baccalaureate programs reported that 25% were engaged in episodic assessment activity, 17% were involved in periodic, and 58% reported on-going assessment activity.

In the Middle States region, 35% of the accounting programs were engaged in episodic assessment activity, 30% were involved in periodic assessment, and 35% were engaged in on-going assessment activity. In the North Central region, 19% of the respondents reported episodic activity, 23% indicated they were involved in periodic assessment, and 58% reported on-going assessment activity. In the Southern region, 28% of the programs reported episodic assessment, another 28% reported periodic, and 44% reported on-going assessment activity.

In the small category, 24% of the programs reported episodic assessment activity, 29% reported periodic assessment, and 47% reported on-going assessment activity. Of the programs in the mid-size category, 19% reported episodic activity, another 19% reported periodic, and 62% of the programs reported on-going assessment activity. Responses from colleges and universities in the large category indicated that 27% were engaged in episodic assessment activity, another 27% reported periodic activity, and 46% reported ongoing assessment activity.

LEARNING OUTCOMES

Hutchings & Marchese (1990) define student learning outcomes by the questions posed by assessment: What do faculty intend for students to learn in their programs of study? What should our graduates know? What should they be able to do? Have our graduates acquired what faculty intended them to learn? Learning outcomes should measure discipline-specific knowledge and transferable skills such as critical thinking and problem solving (American Accounting Association, 1993). The U. S. Department of Labor and the Department of Education (2000) issued a report that identified essential skills required in the workplace. These

transferable skills include the foundation basic skills of reading, writing, arithmetic, listening, and speaking. The report also identified creative thinking, problem solving, and reasoning skills as foundation skills. The ability to apply transferable skills is crucial in attaining educational goals of business majors (Jones, 2002; Russell, 2005; AICPA, 2003; Erwin, 2000; Terenzini, 1997). An Analysis of Variance (ANOVA) was completed for each of the following five dependent variables that are commonly identified as learning outcomes in the literature critical thinking, information literacy, oral communication, problem solving, and written communication.

The study found that when analyzed by Carnegie classification, critical thinking, information literacy, problem- solving, oral communication, and written communication all were identified as student learning outcomes often in all programs. By region, respondents indicated that critical thinking, oral communication, problem solving, and written communication often were identified as student learning outcomes in the accounting programs in all three regions analyzed. Information literacy was identified somewhat as a student learning outcome in the programs in the North Central region and often in the Middle States and Southern regions. Critical thinking, information literacy, problem solving, and written communication were identified often as student learning outcomes in the small, mid-size, and large accounting programs. Oral communication was identified often as a student learning outcome in the small and mid-size programs and somewhat in the large accounting programs.

ASSESSMENT METHODS

An effective assessment plan will use multiple measures of skill development, provide feedback to students and the institution, and lead to improvement in the educational process (Huba & Freed, 2000). The American Accounting Association (AAA) published *A Guide for Professional Accounting Programs* (1995) that emphasized the use of outcomes-based assessment to measure the development of students' skills and their mastery of knowledge obtained in their major. The Guide compiled a list of the most frequently used assessment methods that included objective examinations, measurements of performance, surveys, and proxy indicators (Gainen & Locatelli). Measurements of performance and objective examinations are the most commonly used direct methods of assessment to measure students' general knowledge upon completion of undergraduate programs. Performances are measured through essay and oral exams, presentations, group projects, case studies, and proxy indicators, such as GRE and GMAT tests. These assessment instruments provide evidence of the integration of skills and measure students' ability to apply knowledge learned in other courses and programs (AICPA, 2004).

Direct Assessment Methods

An Analysis of Variance (ANOVA) was computed for each of the following eight dependent variables: Portfolios, capstone courses, juried review, internships, case studies, essays, locally designed tests, and standardized exams/national licensure tests.

In the Carnegie classification, direct assessment methods used by survey participants were consistent with those identified in the AAA Guide, but very few of the methods were used extensively. When asked about the use of portfolios as an assessment tool, the respondents indicated that the method was used very little in all the programs. Capstone projects, internships, essays, locally designed tests and standardized national licensure tests were used somewhat as direct assessment methods as the results indicated. Juried review was reported used very little by

the doctoral programs and not at all by the master's and baccalaureate as a direct assessment method. Case studies were used somewhat at the doctoral and master's programs and very little at the baccalaureate ones as a direct assessment method.

When analyzed by region, a significant difference was found in the use of locally designed tests in the Southern region where the method was used more often than in the Middle States and North Central regions (See Table 2, Appendix). Portfolios were used very little, capstone courses were used somewhat, and juried reviews were not used at all as assessment methods in programs in all regions. Internships were used somewhat at North Central and Southern programs and often at Middle States programs as an assessment method. Case studies and essays were used somewhat as assessment methods at the programs in all of the regions. Standardized national licensure tests were used somewhat at Middle States and North Central programs and used very little at Southern ones.

In the size category, a significant difference was found in the use of standardized national licensure tests between the mid-size and small programs. The mid-size programs used them more often than the small schools (See Table 2). The study indicated that capstone courses, internships, case studies, essays, locally designed tests, and standardized or national licensure tests were used somewhat as direct methods of assessment. Portfolios as direct measures of assessment were used very little, and capstone courses and internships were used somewhat as assessment measures at the programs in all of the size categories. Locally designed tests were used often at the large programs and somewhat at the small and mid-size ones. Juried review was used very little at mid-size programs and large programs and not used at all at the small ones. Case studies and essays were used somewhat at small and mid-size programs and very little at the large programs

Indirect Assessment Methods

The indirect methods of assessment used by participants in the study also mirrored the methods identified in the AAA Guide (Gainen & Locatelli, 1995). The most commonly used indirect methods of assessments discussed in the assessment guide are surveys of current students, graduates, and employers that focus on satisfaction and attitudes about the educational programs. An Analysis of Variance (ANOVA) was computed for each of the following eight dependent variables: alumni surveys, student surveys, employer surveys, focus groups, graduate follow-up studies, retention and transfer studies, exit interviews, and reflective papers.

Survey responses revealed that significant differences existed in the use of four indirect methods; in fact, more significant differences were found in the indirect assessment instruments used than in any other dependent variable in the analysis. A significant difference was discovered among the means for graduate follow-up studies used as indirect assessment methods by Carnegie classification (See Table 2). The doctoral institutions used graduate follow-up studies often as indirect methods of assessment, while the master's used them very little, and the baccalaureate did not use them at all. Another significant difference among the means for retention and transfer studies used as indirect assessment methods indicated that the master's and baccalaureate institutions used the studies somewhat, and the baccalaureate programs used them very little. Alumni surveys were used often at master's programs and used somewhat at doctoral and baccalaureate programs as indirect assessment methods. Student surveys were used often at doctoral and master's programs and used somewhat at baccalaureate ones to measure student learning. Employer surveys were used somewhat and focus groups were used very little at the

programs in all of the classifications as indirect assessment tools. Exit interviews were used somewhat at doctoral and baccalaureate programs and very little at master's programs to assess student learning. Reflective papers were used very little at baccalaureate institutions, somewhat at master's, and not used at all at doctoral programs as indirect assessment methods.

By region, alumni surveys were used somewhat as assessment measures in the Middle States and Southern regions and often in the North Central to assess student learning. Student surveys were used somewhat in the Middle States and often in the North Central and Southern regions as indirect assessment methods. Exit interviews were used somewhat in all the regions in the study as assessment tools. Focus groups, graduate follow-up studies, and retention and transfer studies were used very little in the all of the regions as indirect assessment instruments. Employer surveys were used somewhat in the Middle States and North Central regions and very little in the Southern region. Reflective papers were used very little in the Middle States and North Central regions, and they were not used at all in the Southern regions for assessment purposes.

A significant difference was discovered for the use of alumni surveys between the small and mid-size programs (See Table 2, Appendix). At small programs, alumni surveys were somewhat used, while at mid-size programs, the surveys were used often as indirect assessment methods. A significant difference was also found in the means for employer surveys between the small and mid-size and between the small and large groups. Small institutions used employer surveys very little for assessment purposes; mid-size used the surveys somewhat; and large institutions used them often to measure student learning. Student surveys were used often as indirect assessment methods at the programs in all of the sizes, while focus groups, graduate follow-up studies, and retention and transfer studies were used very little. Exit interviews were used very little at the small and large programs and somewhat at the mid-size ones for assessment. Reflective papers were used very little at mid-size programs and not at all at small and large programs as indirect assessment methods.

USES OF ASSESSMENT DATA

Assessment results provide information about course materials, program goals, methods of instruction, student learning, and other factors that shape the educational experience (Banta, 2002). Decisions about funding, budgets, planning, academic programs, courses, student activities, and much more hinge on assessment data collected (Maki, 2002b; Black & Duhon, 2003). Assessment data should be used as a basis for academic program and curriculum reviews. Students should receive timely feedback about their performance in assessment activities to enable them to improve their skills (Huba & Freed, 2000). Refining and improving the assessment process is an important component of a successful assessment plan. Assessment results should be used to evaluate and revise the assessment process (Maki, 2002a; Palomba & Banta, 1999). A great deal of time has been devoted to creating assessment instruments, developing methods of analysis, and storing of assessment data, but little attention has been given to the use of assessment data to revise programs and improve learning (Soundarajan, 2004). Assessment results influence the modification of student assessment plans, teaching methods, academic programs, and general education (Peterson & Augustine, 2000).

An Analysis of Variance (ANOVA) was computed for each of seven dependent variables identified as common uses of assessment data in the literature: Planning and decision making,

resource allocation, curricular changes, program review, student recruitment, improving student learning, and evaluating the assessment process.

At programs in all Carnegie classifications, assessment results were used often for curricular changes, for program review, and for improving learning at programs. The data were used somewhat for student recruitment at doctoral and master's institutions and very little at baccalaureate programs. Assessment data were used often at doctoral and baccalaureate institutions and used somewhat at master's programs to evaluate the assessment process. A significant difference between the master's and doctoral institutions and a significant difference between the master's and baccalaureate programs indicated that the master's institutions somewhat used assessment data for resource allocation, but the doctoral and baccalaureate groups used the data very little (See Table 3, Appendix). Respondents reported that doctoral institutions used assessment data often for planning and decision making, and the master's and baccalaureate programs used assessment data somewhat for that purpose.

By region, assessment data were used very little in student recruitment, somewhat to evaluate the assessment process, and often for curricular changes and to improve student learning at all programs. Assessment data were used often for planning and decision-making at Middle States programs and somewhat at North Central and Southern ones. The results were used somewhat for resource allocation in the Middle States and very little at North Central and Southern regions. Survey results showed that assessment data were used somewhat at Middle States programs for program review, and often at the North Central and Southern ones.

Assessment results were used often for improving learning, somewhat for planning and decision making, and often for curricular changes at all of the programs in the three size categories. Assessment data were used very little at small and large programs and somewhat used at the mid-size programs for resource allocation. For program review, the results were used somewhat at small programs and often at the mid-size and large programs. The assessment results were used somewhat for student recruitment at the mid-size programs and very little at the small and large ones, but the data were used somewhat at the small and large programs and often at the mid-size to evaluate the assessment process.

ASSESSMENT RELATED CHANGES AND IMPROVEMENTS

The Transformative Assessment Project (TAP) was designed to help bridge the gap between collecting and analyzing assessment data and using the assessment data to improve learning through curricular changes, program review, planning, and decision making (Brown et al, 2004). The TAP collects and analyzes data about student learning, the learning process, and its purpose from multiple and diverse sources. The findings of a TAP are used continuously to redesign learning and teaching models, to inform stakeholders of changes and accomplishments, and to invite discussion that can lead to further improvement and revision. Too often, assessment information is collected, tabulated, and reported to the constituents who request it, but little resulting change occurs (Lorenzetti, 2004; Maki, 2002b). These authorities maintain that to achieve institutional effectiveness, decisions should be made based upon interpretation of the assessment data and results and changes should be communicated to those audiences who need to respond.

An Analysis of Variance (ANOVA) was computed for each of the following eight dependent variables to determine what changes or improvements had actually occurred in their programs due to assessment results: Planning and decision making, resource allocation,

curricular changes, program review, student recruitment, improving learning, evaluating the assessment process, and faculty teaching.

Although this study's respondents indicated that assessment results were used often for program changes, curricular changes, and improvements in student learning, little assessment related change was actually reported in these areas. However, respondents reported that changes were made in the assessment process and in faculty teaching due to assessment data somewhat at the programs in all categories.

By Carnegie classification, assessment results had been used somewhat to bring about changes or improvements in planning and decision making at master's and baccalaureate programs but very little at the doctoral ones. Student recruitment was an area where changes had occurred somewhat in master's programs and very little at doctoral and baccalaureate institutions due to assessment results. Changes had occurred somewhat in student learning and program review at doctoral and master's institutions and often at baccalaureate programs. A significant difference was found between the means of the Carnegie classification responses (See Table 4, Appendix). Sometimes changes were made to resource allocations in the masters' institutions and this was significantly different from the very few changes in resources that occurred at doctoral institutions.

By region, changes and improvements in planning and decision making had occurred somewhat at programs in the Southern and North Central regions and very little in the Middle States region. Improvements in curriculum had occurred often in the North Central and Southern regions and somewhat in the Middle States region, while program review changes had occurred often in the North Central and Southern regions and somewhat in the Middle States region. Student recruitment changes had occurred somewhat in the North Central and Southern regions and very little in the Middle States region, but improvements due to assessment in student learning had occurred somewhat in the Middle States and often in the North Central and Southern regions.

By size, changes in planning and decision making due to assessment results occurred somewhat in the programs in the small and mid-size groups but very little in the large category. However, curricular changes due to assessment occurred often at the programs in the small group and somewhat at the programs in the mid-size and large groups. For student recruitment, assessment related changes and improvements occurred very little at the small and large programs and somewhat at the mid-size ones, but changes in student learning occurred often at the mid-size programs and somewhat at the small and large ones.

ASSESSMENT AUDIENCES

Faculty must receive assessment results to enable them to evaluate the findings and make changes in curriculum and programs to meet the needs of students if change is needed. Assessment data should be made available to administrators so they can use it in strategic planning, resource allocation, and program changes. In addition, accrediting organizations, legislative bodies, governance boards, business leaders, and other external constituents should receive pertinent assessment data as determined by the needs of the constituents (Banta & Associates, 2002).

An Analysis of Variance (ANOVA) was computed for each of nine dependent variables identified in the literature as constituents that should receive assessment data and provide

feedback on the assessment process: Students, parents, faculty, administrators, governance boards, accrediting organizations, general public, alumni, and business.

By Carnegie classification, students, governance boards, and business received very little assessment information from the programs in all of the classifications, and parents and the general public received none at all. Faculty and administrators received assessment data often at the programs in all classifications. Assessment reports were often given to accrediting organizations in the doctoral and master's programs, and somewhat given to the organizations in the baccalaureate programs. Alumni organizations at the doctoral and master's programs received very little assessment data, and the alumni at baccalaureate programs received none at all.

By region, assessment results were shared very little with students, governance boards, and business at the programs in all of the regions, and parents and the general public received no assessment information at all. Faculty and administrators received assessment data often at these programs. Very little assessment data were shared with alumni in the Middle States and North Central regions, and none at all was shared in the Southern region. Accrediting organizations somewhat receive assessment data in the Middle States and North Central regions, and they often receive assessment results in the Southern region.

Responses were similar across treatment conditions except for significant differences that existed in reported recipients of assessment data in the size categories (See Table 5, Appendix). Mid-size institutions sometimes shared assessment results with governance boards and often shared the data with accrediting organizations, and this was significantly different from small program that shared very little assessment information with these audiences. Mid-size programs reported seldom sharing assessment results with alumni, and this was significantly different from small programs that reported sharing no information with alumni. Business received very little assessment data from the programs in the size categories. Parents received no assessment data at all. Faculty and administrators received assessment reports often from the programs in the three groups. The general public received very little assessment information in the mid-size group, and none at all from the small and large programs. Students at the small and mid-size programs received very little assessment information, and they received none at all at the large ones.

SHARING ASSESSMENT RESULTS

All constituents of higher education should be informed of assessment results. Huba & Freed (2000) assert that one of the primary audiences for assessment data is the student being assessed. The authors maintain that students should be informed of the skills and competencies assessed, and assessment results should be shared with students to permit them to improve their skills and expand their knowledge.

An Analysis of Variance (ANOVA) was computed for each of seven dependent variables identified in the literature as effective methods of disseminating assessment data: School newspapers, accrediting organization reports, governance board reports, marketing campaigns, school websites, school catalogs or brochures, and conferences or workshops.

Study findings showed that few reports were disseminated except to those agencies or stakeholders who required assessment data. Very little assessment data were disseminated in governance board reports, at school websites, catalogs, newspapers, or brochures by programs in all categories.

By Carnegie classification, very little assessment data were disseminated through marketing campaigns or at conferences and workshops by the programs. However, accreditation reports at doctoral programs often were used to disseminate assessment results, and they are used somewhat at master's and baccalaureate programs.

By region, marketing campaigns and conferences and workshops were used very little to report assessment data at the programs in all of the regions. However, assessment data were disseminated often in the Middle States and Southern regions and somewhat at the North Central regions through accrediting organization reports.

By size, assessment data were disseminated in accreditation reports often by the programs in the small category, and somewhat in the medium and large programs. However, significant differences were found in the use of marketing campaigns which were used somewhat to disseminate assessment data at the programs in the small category but used very little at the mid-size group (See Table 6, Appendix). Significant differences were also found for disseminating assessment information through conferences and workshops. The mid-size programs somewhat shared assessment data at conferences and workshops while those in the small and large categories shared the very little data at these events.

CONCLUSION

The findings revealed that mostly large doctorate-granting institutions in the North Central region have taken the lead in developing assessment plans for their accounting programs, and mostly mid-size doctorate-granting institutions in the North Central region have made assessment an on-going routine activity. However, most of the programs in this study were involved in the assessment process or putting an assessment plan together.

A number of significant differences were discovered in the study. The differences were found in the direct and indirect assessment instruments used to measure student learning, the use of assessment data, reported assessment related changes and improvements, assessment audiences, and the methods used to disseminate assessment results. A greater number of significant differences were found between the size categories (small, mid-size, and large) than between the Carnegie classifications (doctoral, master's, and baccalaureate) or region categories (middle states, north central, and southern). Significant differences existed in eight of the dependent variables that were analyzed by size, mostly between the small and mid-size categories; whereas, significant differences were found in four dependent variables in the Carnegie classifications, primarily between the doctoral and master's programs, and only one significant difference was discovered for the dependent variables between the region categories.

Significant differences were reported by the accounting chairs in the use of direct and indirect assessment instruments to measure student learning.

1. A significant difference was found in the use of locally designed tests as direct assessment instruments between the Middle States and Southern regions and between the Southern and North Central regions (See Table 2). The study revealed that locally designed tests were used significantly more often in the Southern region than in the Middle States and North Central regions.
2. A significant difference was also found between the programs in the small and mid-size categories in the use of standardized national tests as direct assessment instruments. The mid-

- size programs sometimes used the standardized national licensure tests, which was significantly different from small schools that used them very little (See Table 2).
3. A significant difference existed in the use of graduate follow-up studies as an indirect method of assessment between all three Carnegie classifications (See Table 2). The doctoral institutions used graduate follow-up studies significantly more often as indirect methods of assessment than the master's institutions that used them very little, and the baccalaureate colleges that did not use them at all.
 4. A significant difference was also found in the use of retention and transfer studies as indirect assessment methods between the master's and the baccalaureate institutions (See Table 2). Master's institutions sometimes used retention and transfer studies and this was significantly different from baccalaureate institutions that used these studies very little.
 5. Additionally, a significant difference was discovered for the use of alumni surveys as an indirect method between the small and mid-size programs (See Table 2). At mid-size program alumni surveys were used significantly more often than small programs that only sometimes used these surveys.
 6. Significant differences also existed between the small and mid-size and between the small and large groups for employer surveys (See Table 2). Mid-size programs sometimes used employer surveys and large institutions often used them, and this was significantly different from small institutions that seldom used these surveys.

Differences were also discovered in the use of assessment data and the assessment related changes and improvements.

7. Significant differences were found between the master's and doctoral institutions and between the master's and baccalaureate in the use of assessment data for resource allocation (See Table 3). The master's institutions sometimes used assessment data for resource allocation, but this was significantly different from the doctoral and baccalaureate groups that reported seldom using the data.
8. Significant differences were also found between the master's and doctoral institutions in resource allocation changes due to assessment data (See Table 4). Sometimes changes were made to resource allocations in the master's institutions and this was significantly different from the very few changes in resources that occurred at doctoral institutions.

Assessment audiences and methods used for dissemination of assessment results were also significant.

9. Significant differences were found between the small and mid-size programs for governance boards as audiences of assessment results (See Table 4). Mid-size institutions sometimes shared assessment results with governance boards and this was significantly different from small program that seldom shared this information with their boards.
10. Significant differences were found between the small and mid-size programs for accrediting organizations as recipients of assessment data (See Table 5). The mid-size programs significantly more often shared their assessment data with accrediting organizations than did small programs.
11. Significant differences were also found between the small and mid-size programs for alumni as assessment audiences (See Table 5). Mid-size programs seldom shared assessment results with

alumni and this was significantly different from small programs that reported sharing no information with alumni.

Significant differences also existed in the responses by the participants in the accounting programs regarding the use of marketing campaigns as methods to disseminate assessment data.

12. Significant differences were found between the small and mid-size programs for marketing campaigns (See Table 6). Marketing campaigns were sometimes used to disseminate assessment data for the programs in the small category and this was significantly different from the mid-size group that seldom used these campaigns.
13. Significant differences were found between the small and mid-size programs for the presentation of assessment results at conferences and workshops (See Table 6). Mid-size institutions significantly more often shared their assessment results at conferences and workshops than did accounting programs in small and large universities.

More research is needed to discover evidence that assessment results are used to improve student learning. Little documentation is available that indicates changes and improvements in the learning process have occurred due to assessment data. A study that focuses on how accounting faculty and administrators share assessment data and identifies the constituents who receive the accounting programs' assessment information would be useful to accounting educators. It could also determine to what degree faculty and administrators share and publish assessment results to make the results available to constituents and explore how useful this information is from the perspectives of the constituencies who receive assessment results.

This study gathered useful information about the development and implementation of assessment plans and strategies for reporting assessment results from accounting educators throughout the United States. The research offers evidence of the development, refinement, and understanding of the assessment process at the majority of the reporting accounting programs. Perhaps, the findings of this study along with the expertise of leading authorities in the field can offer support to faculty and administrators in building strong, successful accounting program assessment plans.

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APPENDIX

Table 1. Questionnaire Response

By Carnegie Classification	Surveys Mailed		Surveys Returned By Group		Total Response Rate
	N	%	N	%	%
Doctoral	207	26	20	10	2.0
Master's	406	52	53	13	7.0
Baccalaureate	173	22	29	17	4.0
Total	786	100	102	---	13

By Region	Surveys Mailed		Surveys Returned By Group		Total Response Rate
	N	%	N	%	%
Middle States	149	19	18	12	2.3
New England	55	7	1	2	0.1
North Central	251	32	46	18	5.9
North West	37	5	5	16	0.6
Southern	240	30	27	11	3.5
Western	54	7	5	9	0.6
Total	786	100	102	---	13.0

By Size	Surveys Mailed*	Surveys Returned By Total Mailed		Total Response Rate*
	N/A	N	%	%
Small	N/A	43	5	N/A
Mid-size	N/A	38	5	N/A
Large	N/A	11	2	N/A
Missing Data	N/A	10	1	N/A
Total	N/A	102	13	N/A

*Enrollment information was not known until surveys were returned.

Note. Small < 200; Mid-size = 200 – 400; Large > 400.

Table 2. Assessment Methods

Direct Assessment Methods

By Region	<u>Group 1</u>		<u>Group 2</u>		<u>Group 3</u>		F
	Middle States		North Central		Southern		
	M	SD	M	SD	M	SD	
Locally Designed Tests	3.47	1.66	3.43	1.63	2.00	1.68	5.204*
By Size	<u>Group 1</u>		<u>Group 2</u>		<u>Group 3</u>		F
	Small		Mid-size		Large		
	M	SD	M	SD	M	SD	
Standard National Licensure	3.70	1.53	2.71	1.64	2.90	1.45	3.771*

Indirect Assessment Methods

By Carnegie Classification	<u>Group 1</u>		<u>Group 2</u>		<u>Group 3</u>		F
	Doctoral		Master's		Baccalaureate		
	M	SD	M	SD	M	SD	
Graduate Follow-Up Studies	1.75	1.34	3.78	1.41	4.57	0.73	3.354*
Retention & Transfer Studies	4.21	1.01	3.46	1.76	4.39	0.78	3.494*
By Size	<u>Group 1</u>		<u>Group 2</u>		<u>Group 3</u>		F
	Small		Mid-size		Large		
	M	SD	M	SD	M	SD	
Alumni Surveys	2.95	1.20	2.03	1.06	2.40	1.51	5.349*
Employer Survey	3.81	1.17	2.85	1.44	2.50	1.51	6.373*

Table 3. Use of Assessment Results

By Carnegie Classification	<u>Group 1</u>		<u>Group 2</u>		<u>Group 3</u>		F
	Doctoral		Master's		Baccalaureate		
	M	SD	M	SD	M	SD	
Resource Allocation	4.00	0.97	3.30	1.13	4.09	1.00	5.191*

Table 4. Assessment Related Changes and Improvements

By Carnegie Classification	<u>Group 1</u>		<u>Group 2</u>		<u>Group 3</u>		F
	Doctoral		Master's		Baccalaureate		
	M	SD	M	SD	M	SD	
Resource Allocation	4.38	0.81	3.47	0.99	3.96	1.02	4.345*

Table 5. Assessment Audiences

By Size	<u>Group 1</u>		<u>Group 2</u>		<u>Group 3</u>		F
	Small		Mid-size		Large		
	M	SD	M	SD	M	SD	
Governance Board	4.00	1.31	3.31	1.28	4.30	1.06	3.698*
Accrediting Organizations	3.08	1.59	2.11	1.23	2.30	1.49	4.251*
Alumni	4.65	0.68	4.09	1.15	4.30	0.95	3.278*

Table 6. Dissemination of Assessment Results

By Size	<u>Group 1</u>		<u>Group 2</u>		<u>Group 3</u>		F
	Small		Mid-size		Large		
	M	SD	M	SD	M	SD	
Marketing Campaigns	3.49	0.80	4.00	1.06	3.80	0.42	4.345*
Conferences or Workshops	4.41	0.90	3.50	1.25	4.40	0.84	4.127*