

Change in Accounting Programs: The Impact of Influences and Constraints

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Abstract

How did the accounting community modify its academic programs when faced with the 150-hour requirement and other forces for change? This paper examines the changes in accounting programs within the context of two external forces, the 150-hour legislation and AECC recommendations, and two internal constraints, institution size and AACSB accreditation. Department chairpersons and program administrators provided data on the design of accounting programs, including structure, types of curricular changes, and offered concentrations. The results of the study indicate that the majority of respondents attribute importance to the AECC recommendations and the 150-hour requirement in designing program changes. However, institutions grouped by size and accreditation status differ significantly in the importance of the AECC recommendations, types of curricular changes, and concentrations offered.

Introduction

Beginning in January 2000, CPA exam aspirants in 29 states found themselves needing up to 30 additional hours of college credit. Nineteen additional jurisdictions have enacted 150-hour rules, with effective dates staggered through 2009. These legislative changes forced educational institutions to design their programs to allow students to obtain the additional college credit hours.

In addition to the newly imposed 150-hour requirement, forces within the accounting academic community called for program changes. The Accounting Education Change Commission (AECC) was created to guide and structure this period of change (D. Williams, 1993). The AECC issued two position statements and several issues statements in an effort to influence accounting education to meet the emerging needs of the accounting profession (D. Williams, 1993).

While forces external to educational institutions drive the need for change in accounting programs, constraints within institutions can limit and influence the ability to implement program changes. An institution's resources can limit its ability to expand an accounting program, and the need to meet or maintain accreditation standards can influence the nature and content of program changes.

Institutions of higher education have recently completed program modifications to provide curricula that meet both external motivations and internal constraints. Sufficient

Editor's note: This paper was accepted by Jeffrey Harkins, Editor

experience with 150-hour programs does not yet exist to evaluate their effectiveness in meeting educational and professional objectives. However, an analysis is possible to provide an understanding of how programs are structured and changes implemented. Such an analysis can provide a benchmark for institutions facing or contemplating program changes.

The purpose of this paper is to examine the design of accounting programs within the context of two external forces, 150-hour legislation and AECC recommendations, and two internal constraints, institution size and AACSB accreditation. Department chairs and program administrators provided survey data on the design of accounting programs, including structure, concentrations, and types of curricular changes. The study provides initial insights into how educators addressed program design, driven by external forces in the face of internal constraints.

The results of the study indicate that the majority of respondents attribute importance to the AECC recommendations and the 150-hour requirement in designing program changes. We find significant differences by institution size and accreditation status in the importance of the AECC recommendations, types of curricular changes, and concentrations offered.

Model and Previous Literature

Model for Change

A series of essays in the Summer 1996 edition of *Journal on Accounting Education* motivated this study. Collectively, the articles called for research into the design of accounting programs resulting from 150-hour legislation.

Figure 1 presents a model for change in accounting programs. Change involves decisions about program structure (J. Williams, 1996, 239; D. Williams, 1996, 202), curricular modifications (Skousen, 1996, 217; Wallace, 1996, 152), and curricular concentrations (J. Williams, 1996, 239). Structure decisions include determining whether the program will add a fifth (4+1) or sixth year (4+2) or include earlier integration (2+3 or 3+2). Decisions related to curricular change include blending content-based courses with courses designed to develop and broaden student professional skills (communication, interpersonal skills, and professional orientation), as well as balancing in-depth technical and broader-based content. Decisions must be made to determine whether technical concentrations will be offered and whether the concentrations will be offered at the undergraduate or graduate level.

Many motivations exist for program change, including increasing market share, competition from for-profit and distance-learning universities, and the need to meet customer expectations (D. Williams, 1996, 200). However, enacted 150-hour legislation is most compelling. In addition, the AECC recommended that accounting education be redesigned to meet the profession's demand for capable professionals.

Change in accounting education, however, is not accomplished easily (Albrecht and Sack 2000, 13). The process is burdened by a bureaucratic and hierarchical structure that often requires a series of reviews and approvals by representatives from the institution's various sectors. The process also involves acquiring and allocating resources and ensuring consistency with accreditation standards. The following sections discuss extant literature on the influencing factors and constraints in the program change model.

150-Hour Requirement

Most prior studies focused on the appropriate mix of courses offered in 150-hour programs and the predicted effect of 150-hour education on student skills, career success, and accounting enrollments. Researchers surveyed management accountants, CPA practitioners, accounting educators, and students and analyzed the effects of 150-hour requirements in states early-adopting the law.

Harrison, et al. (1991) provided early insight into the design of fifth year accounting programs. At that time, only eighteen jurisdictions had enacted 150-hour legislation, and only two states had the requirement in effect. Harrison, et al. found that most of the schools offered master's in accounting programs, but their structures and concentrations varied greatly. This study provided an early and limited look at the structure of five-year accounting programs. However, the majority of educational institutions have since implemented their own programs in response to the 150-hour legislation, and these initial observations may no longer be relevant.

The AICPA (1999) Accounting Program Administrator Survey reported that 60 percent of educational institutions had programs in place to provide 150 hours of education. Thirty-five percent of respondents indicated that they added a master's program. The study, however, did not address the relative influence of either the external motivations for change or internal constraints on change.

Several papers focus on the desirable curriculum mix of 150-hour programs. These studies utilize input of CPA practitioners, management accountants, educators, and students. Nelson (1995) provided an historical overview that accounting educators traditionally stressed technical accounting subjects over the breadth of an education in liberal arts and the depth of courses that focus on critical thinking and understanding. Novin and Tucker (1993) surveyed CPA firm partners and sole practitioners to identify their preferences for 150-hour curricula. Practitioners indicated that, for new accountants, technical skills (financial accounting, tax, and electronic spreadsheets) and communication skills were more important than courses in the fine arts and basic sciences. Novin and Tucker (1993) developed a tool for educators to use in modifying their programs to meet the 150-hour requirement.

In a follow-up study, Novin, et al. (1997) surveyed accounting department chairs for their perspectives on program content. A comparison of these responses and those of accounting practitioners from the earlier study identified the differences between the two groups. Based on these differences, Novin et al. developed a process model to effect change in curriculum content.

Leinicke, et al. (1992) provide a look at practitioner preferences for accounting curricula based upon a survey of predominantly local firm CPAs and sole practitioners. The respondents considered federal tax, interpersonal and communication skills, and computer studies most important and social sciences and liberal arts least important to an accountant's educational portfolio.

Antenucci and Heal (1999) found that students in one Ohio university preferred to meet the 150-hour requirement by taking more hours in accounting and business rather than additional liberal arts courses. In a survey of Tennessee CPA exam candidates, 43 percent completed the 150-hour requirement using undergraduate courses. Over 60 percent took more than three additional hours of accounting, and nearly half took more than three additional hours of business courses. While these studies provide insights on the preferences of various groups as to the educational mix to meet the 150-hour requirement, none indicates how educators have actually structured their accounting programs in terms of adding, deleting or modifying courses.

Other authors debate whether the additional hours required for accounting students will enhance their skills and future career success. St. Pierre (1996) questions the ability of 150-hour programs to genuinely improve the skills of students in critical thinking, interpersonal relationships, and communication, as well as their professional orientation. He believes the relatively short period of time that students are engaged in the educational process prohibits marked improvements in these areas.

Several studies report the performance of students and graduates subsequent to the 150-hour law taking effect in a state. Cummings and Rankin (1999) profiled the experiences in Florida CPA candidates, and Donelan (1999) studied Tennessee candidates. In both studies the exam pass rates increased significantly. Cummings and Rankin (1999) reported that practitioners believe five-year graduates perform better on the job in the long term and advance more quickly. Antenucci and Head (1999) found that students were twice as likely to believe 150 hours of education would enhance their professional careers. However, in a 10-year study of Brigham Young University alumni, graduates with master's degrees in Big 8 firms did not receive promotions faster than those with bachelor's degrees (Kalbers, et al., 1997). Furthermore, Etheridge's and Heminway's (1993) survey of management accountants found that only 31 percent believed that entry-level individuals with master's degrees perform better than those with bachelor's degrees.

AECC Recommendations

Doyle Williams (1993) argued that 150-hour legislation provides an opportunity to re-examine the entire accounting curriculum to better meet the needs of the profession. "Designing and implementing a 150-hour program should involve substantive change in the total program and not just the addition of traditional courses" (D. Williams, 1996, 200). The AECC stressed that education should be directed toward teaching students to "learn how to learn" (80). AECC recommendations emphasize the development of communication and interpersonal skills, international knowledge, sciences, and ethical values over traditional accounting skills.

The AECC issued two position statements and several issues statements. Position Statement No. One (AECC, 1990) addresses the objectives of accounting education, including skills, knowledge, and professional orientation. It suggests that the education of accountants should include general education, general business education, general accounting education, and specialized accounting education.

Consistent with this approach is the implication that undergraduate curricula focus on the first three areas, with specialized accounting topics covered in graduate curricula. A curriculum influenced by the AECC's recommendations would focus on broad-based courses, particularly at the undergraduate level, with more technical accounting education in graduate courses. The present study examines the types of curricular changes which indicate a broad-based versus technical education.

Constraints

While designing an accounting program that meets the 150-hour requirement and incorporates AECC recommendations, educators operate within certain constraints. Factors affecting change include accreditation standards and available resources (D. Williams, 1996, 201).

Expanding a program or curriculum can stretch existing resources (J. Williams, 1996, 239). For example, the number of faculty and availability of funds clearly define and influence curricular changes. Wallace (1996, 151) suggests that the ability to implement

additional curricula may differ by the size of the institution. "Small schools generally cannot compete with the wealth of resources available at flagship state institutions" (Koerner, 2000). The resources available to an accounting program for curricular development are often related to enrollment (Hall, 1995). The current study utilizes institution enrollment as a proxy for available resources.

An additional constraint relates to AACSB accreditation. Programs at schools accredited by AACSB (or striving for accreditation) are limited to certain numbers or proportions of hours the student can take in the major and in the business college (AACSB, 2000). For example, at least 50 percent of credit hours in a four-year curriculum for an accredited school must be outside the college of business. Graduate programs must include at least 30 credit hours, with a minimum of 12 hours in the area of specialization and 18 hours required in specific core areas. As a result of accreditation, the addition of required accounting or business courses must be accompanied by the deletion of other courses.

Although accounting programs may be constrained by other factors such as program mission (focus on teaching versus research), flexibility, convenience for students, reputation, etc., this study focuses on the resource availability and accreditation constraints. Institution enrollment and accreditation status are incorporated into the analyses to ascertain whether differences in program structure and curriculum can be associated with these factors.

Research Questions

A series of essays in the Summer 1996 issue of the *Journal of Accounting Education* provided several researchable topics that contributed to the motivation for this study. The following questions are considered in this study:

- RQ#1:** *How important were the AECC recommendations and the 150-hour legislation in motivating the accounting program changes (D. Williams, 1996)? Did the influence of the AECC recommendations and the 150-hour legislation differ by school size or accreditation status?*
- RQ#2:** *How have educational institutions structured their programs to meet the 150-hour requirement (J. Williams, 1996; D. Williams, 1996)?*
- RQ#3:** *What concentrations are offered within accounting programs (J. Williams, 1996; D. Williams, 1996)?*
- RQ#4:** *What curricular actions were used in developing 150-hour programs (Wallace, 1996; J. Williams, 1996; Skousen, 1996)?*

These research questions are examined within the context of the model for change in accounting programs in Figure 1. Accordingly, accounting program structures, curricular concentrations, and curricular actions are examined for the effects of the two external influencing factors and the internal operating constraints.

Methodology

A research instrument was mailed to the department heads of all 824 U.S. institutions listed in the *1998-1999 Accounting Faculty Directory* (Hasselback, 1998). The survey requested descriptive information about the institution, the structure of all accounting programs, the presence of concentrations, curricular actions, as well as the importance of the 150-hour requirement and AECC recommendations in motivating curricular changes. A copy of the research instrument is available upon request.

Two hundred and thirty-one usable responses were received, representing a response rate of 28 percent. To test for a possible non-response bias, a comparison was made of the responses of early and late respondents. No significant differences were noted that might suggest a non-response bias.

Descriptive statistics of the respondents and their institutions are exhibited in [Table 1](#). The typical respondent is a chair or department head (70%), holding a doctoral degree (64%), CPA certification (71%), and academic rank of full professor (55%), with 20 years of academic experience. Slightly more than half of the respondents were from public educational institutions. The means of total institution enrollment, business student population, number of juniors and seniors majoring in accounting, and graduate students in accounting were 8,189; 1,437; 155; and 45, respectively. Forty-seven percent of respondent colleges of business were accredited by the AACSB. This compares favorably to the proportion of AACSB accredited institutions listed in the Hasselback directory.

The data analysis is organized around the research questions and structured to examine the effects of the two external environmental forces (AECC recommendations and 150-hour legislation) and the two internal constraints (school size and college of business AACSB accreditation). Measures for the influence of environmental factors were obtained as responses to a five-point scale. Respondents were then grouped by their reported influence of the AECC recommendations and the 150-hour legislation on program design or modification. Respondents who indicated these were very important or important influences were categorized as Important, and those who responded neutral, unimportant, or very unimportant were categorized as Not Important. Respondent institutions were divided into five size categories according to total student enrollment. The five groups were considered consistent with institution sizes that would reasonably be expected to be associated with resource availability.

We performed Chi-square tests for significant differences among institutional characteristics. Responding private institutions tend to be smaller in size and not accredited by AACSB. Correspondingly, public institutions tend to be larger and AACSB accredited. No significant differences were noted by size and AECC importance or size and 150-hour importance.

Results

For some analyses, total responses are less than 231 because some respondents did not answer all questions. Analyses regarding graduate programs include only those responses from institutions that indicated graduate accounting enrollments. Where appropriate, ANOVA and Chi-square tests were used to assess significant statistical differences.

RQ#1: Importance of AECC Recommendations and 150-Hour Legislation

Sixty percent of respondents indicated that the AECC recommendations were important or very important in motivating their institution's program or curriculum changes. Sixty-five percent of respondents indicated that the 150-hour legislation was important or very important in motivating program changes. [Table 2](#) reports the analysis of responses according to school size and accreditation status.

The importance of AECC recommendations by school size was statistically significant. The mean rating generally increased as school size increased, suggesting that larger institutions attach greater importance to AECC recommendations. Furthermore, analysis of the importance ratings by the institution's accreditation status indicates that

respondents from accredited institutions attribute greater importance to AECC recommendations than those from non-accredited colleges. Perhaps larger, accredited institutions perceive themselves as leaders in educational innovation and attribute importance to AECC recommendations as guidelines in designing their programs.

ANOVA results were not statistically significant in tests of school size and the importance of 150-hour legislation. In addition, ANOVA tests revealed no statistically significant differences in the importance of the 150-hour legislation by the school's accreditation status. These findings are logical since most schools, regardless of size or accreditation status, face the same task of providing programs that meet the mandated requirements.

RQ#2: Program Structures

While ninety-four percent of existing bachelor degree programs are four-year structures, the vast majority of graduate programs are 4+1 structures. The 4+1 structure easily facilitates the addition of the incremental year to meet the 150-hour requirement. This structure also allows students from other four-year programs to enter graduate programs. As not all undergraduate accounting majors aspire to become CPAs, the 4+1 structure accommodates exit after the bachelor's degree. Approximately 20 percent of MBA and MBA –accounting programs are designed as 4+2 structures, most likely to accommodate more hours in an MBA curriculum than in an MS program. A small minority of graduate programs is organized as 2+3, 3+2, or 5-year courses of study. These structures are minimal perhaps because they require an earlier student commitment to graduate study than the 4+1 structure.

School size does not appear to be a significant factor in whether graduate programs are structured as 4+1 ([Table 4](#)). However, college AACSB accreditation may influence selection of the 4+1 graduate program structure. More accredited programs have 4+1 structures than would be expected by chance, based upon the Chi-square test. This finding may be driven by the difference in missions of the undergraduate and graduate programs, which is an important factor in accreditation standards. It is simpler to add an additional year with a separate mission than to revise the mission of the undergraduate program. The importance of AECC recommendations and the enactment of 150-hour legislation do not appear to impact 4+1 graduate structures.

RQ#3: Concentrations

Relatively few undergraduate accounting programs currently offer or plan to offer concentrations in tax, internal auditing, systems, etc. However, the Chi-square test indicates a statistical difference in concentrations offered by school size ([Table 5](#)). Larger institutions have greater resources to provide the faculty and courses that enable specific concentrations. In addition, accredited schools offer more undergraduate concentrations than expected based upon chi-square tests. Concentrations can be tied to mission-specific objectives central to the accreditation standards.

Chi-square tests indicate no significant difference in undergraduate concentrations between those respondents who indicated that the AECC recommendations or 150-hour legislation was important in designing their programs. The AECC recommends that undergraduate accounting programs be more broad-based and general, essentially precluding concentrations in the bachelor's program. In many jurisdictions, the 150-hour legislation does not specify course content. Accordingly, concentrations are often unimportant to those stressing the 150-hour requirement in program design.

In terms of graduate concentrations, no significant differences were noted by schools of varying size, accreditation, AECC influence, or 150-hour influence (Table 5). Because the AECC recommended that graduate study be more technically focused (which would include various concentrations), the lack of a significant difference is inconsistent with expectations. On the other hand, since 150-hour requirements often do not specify course content, one would not expect differences for those programs influenced by 150-hour legislation.

Table 6 lists the reported undergraduate and graduate concentrations. The most frequently listed concentration for undergraduates is consulting, which is consistent with students who aspire to non-CPA professional careers. An undergraduate concentration in tax, which is the next most frequent response, is inconsistent with obtaining the hours necessary to sit for the CPA exam. However, the finding is consistent with a recent study, which indicates the number of students pursuing a master's in tax declined nearly 50 percent in the late 1990s (Albrecht and Sack 2000, 20). The most frequently reported graduate concentrations are controller/corporate and internal audit. Perhaps institutions offer these non-public concentrations to boost enrollments by attracting students who do not aspire to become CPAs.

RQ#4: Curriculum Actions

Respondents reported the types of curriculum changes made in designing their undergraduate and graduate accounting programs. Undergraduate program changes at institutions with enrollments under 5,000 and those with over 20,000 students were more likely to add required accounting courses than schools in the mid-sized categories (Table 7). Schools under 5,000 in enrollment were also less likely than expected to delete required accounting courses than the larger schools. Institutions with enrollments over 10,000 were more likely to revise undergraduate accounting courses. Schools with less than 2,000 students deleted more non-accounting courses, while institutions with 2,001-5,000 students and those with 5,001-10,000 students deleted fewer required non-accounting courses.

The various sized schools took different approaches to program revision. Smaller schools added required accounting courses at the expense of non-accounting curricula. Mid-sized schools tended to broaden their undergraduate curricula by deleting accounting courses. The largest schools traded off required accounting courses by adding other required accounting courses. The undergraduate program changes are consistent with the idea that smaller institutions generally have fewer resources than larger schools.

At the undergraduate level, accredited schools tended to delete and revise accounting courses, revise course prerequisites, and introduce new instructional methods more than expected compared to their non-accredited counterparts (Table 7). One possible explanation for the different revision strategies is accredited schools must meet certain fixed hours criteria not faced by non-accredited schools.

Respondents who indicated that the AECC recommendations were important in designing their accounting programs were more likely to delete required accounting courses, revise accounting courses, revise course prerequisites, and introduce new instructional methods than their counterparts who did not attach importance to the AECC recommendations. These actions are consistent with the AECC recommendations that undergraduate curricula should be broadened with non-accounting studies. The finding is also consistent with the pattern for accredited institutions, which attributed more importance to AECC recommendations in designing their accounting programs.

Respondents who were influenced by the 150-hour legislation were more likely to add required accounting courses, delete required accounting courses, add required non-accounting courses, and expand the number of accounting electives in their undergraduate curricula than those to whom the 150-hour legislation was less important. This revision approach is consistent with a perceived need to add accounting courses to expand a program to meet the 150-hour requirement.

At the graduate level, no significant differences in curricular changes were noted by school size (Table 8). The only exceptions were schools with enrollments over 20,000 who revised more course prerequisites and mid-sized schools who were less likely to revise prerequisites. No significant differences were noted in graduate program changes by accreditation status, and for the most part, no significant difference was noted by reported AECC importance. The exception was respondents to whom the AECC recommendations were important; these schools introduced more new instructional methods. On the other hand, the 150-hour requirement seems to have a greater impact on graduate curricular change. Respondents who reported that 150-hour legislation was important added more required accounting courses, deleted more required accounting courses, and revised more accounting courses compared to respondents to whom the 150-hour law was not an important issue. These results are consistent with a perceived need to add accounting hours for the 150-hour requirement and to make the program attractive to students who report that they prefer additional accounting versus non-accounting courses (Antenucci and Heal, 1999).

In summary, it appears that institutions that are accredited and influenced by the AECC recommendations attempted to broaden their undergraduate curriculum. Those strongly influenced by the 150-hour legislation tended to add more accounting to both undergraduate and graduate requirements. School size, representing resource availability, also appears to influence the types of curricular changes instituted in accounting programs.

Summary and Conclusion

This study examines the design of college accounting programs as driven by 150-hour legislation and recommendations of the Accounting Education Change Commission and constrained by institution size and accreditation standards. The results provide information about how programs have been constructed to meet these forces.

Generally, larger, accredited institutions are more influenced in program design by AECC recommendations than their smaller, non-accredited counterparts. All institutions are equally impacted by the 150-hour legislation, since laws do not create exemptions for institutions of differing characteristics. Accounting programs have been predominantly structured as 4+1 programs, except for MBA programs that generally require more hours for completion than master's in accounting programs. Larger, accredited schools tend to offer more concentrations than smaller, non-accredited ones, with undergraduate concentrations principally in consulting or tax and graduate concentrations in controllership and internal auditing.

In terms of curricular changes, larger, accredited schools who are influenced by AECC recommendations are more likely to delete and revise accounting courses in their program designs. Those institutions influenced by the 150-hour requirement are more likely to design their programs with more accounting content. The principal strengths of accounting programs include curriculum design and flexibility, with larger, accredited schools also citing their existing graduate programs.

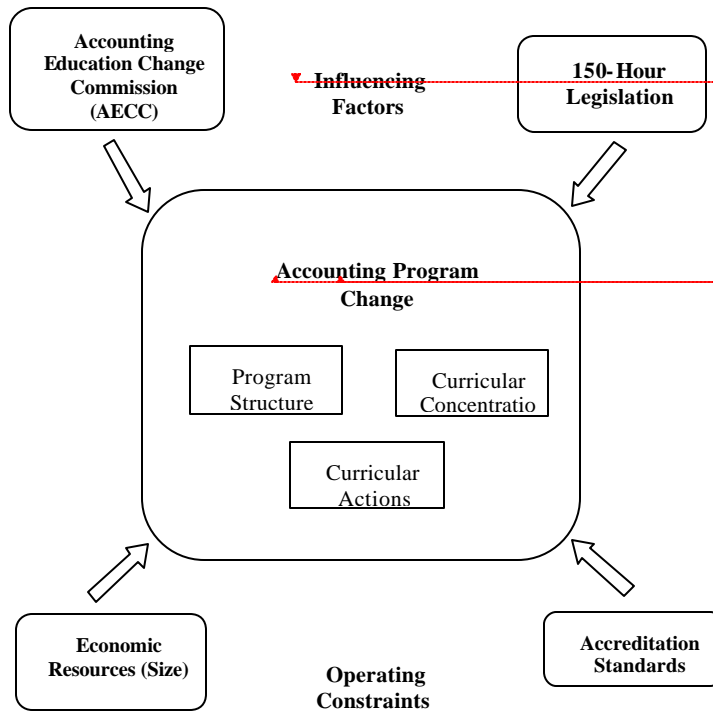
The present study focused on accounting program design as influenced by the 150-hour requirement and AECC recommendations within two constraints of school size and accreditation status. Other factors could influence design, and additional constraints affect the development of accounting programs. Future research could focus on these additional influences.

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**Figure 1: Accounting Program Change
Influences and Constraints**



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Table 1: Respondent and Institution Characteristics
n=231

<u>Respondent Characteristics</u>		<u>Institution Characteristics</u>	
Position:		Type:	
Dean	1%	Public	55%
Director	11	Private	45
Chair/head	70	Student Populations (means):	
Other	18	Total	8,189
Rank:		Business	1,437
Full Professor	55%	Junior/senior accounting	155
Associate Professor	38	Graduate accounting	45
Assistant Professor	11	AACSB Accreditation:	
Instructor	1	College	47%
Highest Degree:		Accounting program	20
PhD/DBA	64%		
MBA/MS	34		
JD	2		
Professional Certification:			
CPA only	71%		
CMA only	4		
CPA and CMA	8		
Other	14		
None	3		
Years academic experience (mean)	20 years		

Constraints	Influence	
	AECC	150-Hour
All Schools	3.67	3.55
Size:		
Less than 2,000	3.28	3.63
2,000 – 5,000	3.31	3.47
5,000 – 10,000	3.76	3.41
10,000 – 20,000	3.58	3.95
Over 20,000	4.00	4.00
Accreditation:		
Accredited	3.71	3.80
Not Accredited	3.40	3.54

Bold = Significant ANOVA difference between appropriate groups ($p < .05$)

Table 3: Accounting Program Structures Existing and Planned Degrees (Number of Schools)

Degrees	Number of Schools						Total
	4	4+1	2+3	3+2	5	4+2	
Bachelor	210	18			1		229
MBA		87		1	1	22	111
MBA - accounting		51	2		1	7	61
MS - accounting	1	77	2	2	3	1	86
MS – tax		22				2	24
Other	8	13	1	4	4	2	32

Table 4: Comparisons of Graduate Structures By School Characteristics and Influence Factors*			
Characteristic	Graduate Structure		
	Not 4+1	4+1	Total
School Size:			
2000 or less	3	7	10
2001 – 5000	4	9	13
5001 – 10,000	2	29	31
10,001 – 20,000	3	25	28
Over 20,000	2	10	12
Total	14	80	94
College Accreditation:			
Accredited – AACSB	8	61^m	69
Not Accredited	9	22^f	31
Total	17	83	100
AECC Influence:			
Important	10	60	70
Not Important	7	21	28
Total	17	81	98
150-Hour Law Influence:			
Important	10	60	70
Not Important	7	21	28
Total	17	81	98

Bold = significant Chi-Square difference ($p < .05$).

^m = More than expected.

^f = Fewer than expected.

* Number of schools varies due to missing responses by some schools.

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Table 5: Characteristics of Programs with Accounting Concentrations (Number of Schools)

Concentration	Comparison of Schools by Size					Comparison of Schools by Accreditation		Comparison of Schools by AECC Influence		Comparison of Schools by 150-law Influence	
	<2K	2K-5K	5K-10K	10K-20K	>20K0	Accredited	Not Accredited	AECC Important	AECC Not Important	150-law Important	150-law Not Important
Undergraduate:											
Group Size	n=45	n=52	N=52	n=43	n=17	n=108	n=121	n=133	n=84	n=144	n=75
Existing	4^f	8	10	15^m	3	30^m	12^f	<u>27</u>	<u>14</u>	<u>28</u>	<u>13</u>
Planned	<u>1</u>	<u>1</u>	<u>5</u>	<u>4</u>	<u>1</u>	<u>8</u>	<u>5</u>	<u>9</u>	<u>4</u>	<u>10</u>	<u>3</u>
Graduate:											
Group Size	<u>n=10</u>	<u>n=13</u>	<u>N=31</u>	<u>n=28</u>	<u>n=12</u>	<u>n=69</u>	<u>n=31</u>	<u>n=70</u>	<u>n=28</u>	<u>n=70</u>	<u>n=28</u>
Existing	<u>3</u>	<u>7</u>	<u>6</u>	<u>14</u>	<u>5</u>	<u>28</u>	<u>8</u>	<u>25</u>	<u>11</u>	<u>25</u>	<u>11</u>
Planned	<u>0</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>11</u>	<u>3</u>	<u>10</u>	<u>4</u>	<u>10</u>	<u>4</u>

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Bold – significant Chi-Square difference between appropriate groups (p < .05)

^m = More than expected

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Volume XVI¶
2006¶
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Table 6: Reported Concentrations (Number of Schools)

Concentrations	Undergraduate	Graduate
Existing and Planned:	n=42	n=49
Tax	17	4
Internal Audit	11	16
Systems	5	5
Public	2	4
Controller	5	31
Corporate	5	16
Consulting	27	8
Gov/NFP	13	2
Other	3	3
Total	88*	89*

*Total may exceed number of schools because some schools offer multiple concentrations.

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Table 7: Comparison of Number of Schools Reported Types of Undergraduate Program Changes

Type of Program Change	Comparison of Schools by Size					Comparison of Schools by Accreditation		Comparison of Schools by AECC Influence		Comparison of Schools by 150-law Influence	
	<2K (n=45)	2K-5K (n=52)	5K-10K (n=52)	10K-20K (n=43)	>20K (n=17)	Accredited (n=108)	Not Accredited (n=121)	AECC Important (n=133)	AECC Not Important (n=86)	150-law Important (n=144)	150-law Not Important (n=75)
Add required accounting course	16 ^m	18 ^m	8 ^f	8 ^f	8 ^m	28	36	43	22	50 ^m	15 ^f
Delete required accounting course	4 ^f	9 ^f	18 ^m	19 ^m	9 ^m	47 ^m	16 ^f	48 ^m	15 ^f	52 ^m	11 ^f
Revise accounting course	21 ^f	28 ^f	27 ^f	34 ^m	11 ^m	78 ^m	57 ^f	97 ^m	38 ^f	94	41
Add required non-accounting course	12	13	12	9	6	26	33	41	18	47 ^m	12 ^f
Delete required non-accounting course	6 ^m	2 ^f	2 ^f	9	1	12	10	12	10	18	4
Revise non-accounting course	5	7	6	8	2	16	15	17	14	22	9
Revise prereq. for course	7	8	7	11	4	28 ^m	14 ^f	32 ^m	10 ^f	32	10
Expand number of accounting electives	14	14	9	7	3	21	29	36	14	39 ^m	11 ^f
New instructional methods	19	19	21	22	10	55 ^m	45 ^f	77 ^m	23 ^f	68	32

Bold – significant Chi-Square difference between appropriate groups ($p < .05$).

^m More than expected. ^f Fewer than expected.

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Table 8: Comparison of Number of Schools Reported Types of Graduate Program Changes

Type of Program Change	Comparison of Schools by Size					Comparison of Schools by Accreditation		Comparison of Schools by AECC Influence		Comparison of Schools by 150-law Influence	
	<2K (n=10)	2K-5K (n=13)	5K-10K (n=31)	10K-20K (n=28)	>20K (n=12)	Accredited (n=69)	Not Accredited (n=31)	AECC Important (n=70)	Not AECC Important (n=28)	150-law Important (n=70)	Not 150-law Important (n=28)
Add required accounting course	5	4	12	15	8	33	13	34	12	41^m	5 ^f
Delete required accounting course	0	1	4	4	5	13	2	12	3	14^m	1 ^f
Revise accounting course	3	6	11	12	8	32	10	32	10	36^m	6 ^f
Add required non-accounting course	1	4	11	6	5	20	7	21	6	23	4
Delete required non-accounting course	1	0	3	3	2	8	2	7	3	9	1
Revise non-accounting course	2	1	1	2	2	7	2	8	1	7	2
Revise prereq. For course	2	2	2 ^f	3 ^f	6 ^m	11	4	12	3	13	2
Expand number of accounting electives	1	5	5	10	2	19	4	18	5	20	3
New instructional methods	3	5	13	10	5	26	10	31^m	5 ^f	28	8

Bold – significant Chi-Square difference between appropriate groups ($p < .05$) ^m More than expected. ^f Fewer than expected.

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Appendix

Survey Instrument

Dear Professor _____:

Currently, over 40 states have enacted laws to require 150 hours of education to be eligible to sit for the CPA examination. The enclosed materials are part of our study of how accounting programs are addressing the 150-hour requirement and the role that student accounting internships play in those curricula.

You were selected as a participant for the study from the Hasselback *1998-1999 Accounting Faculty Directory*. As a leader of your school's accounting program, you are positioned to provide the data necessary for our study. We hope you will take the short amount of time necessary to respond to this research instrument. Your institution and responses will be treated with complete confidentiality.

The research instrument is designed to minimize the amount of your valuable time required and should be completed in approximately thirty (30) minutes.

Your responses will contribute to the success of our study and an improved understanding of 150-hour educational programs and the role of student internships. Please return the completed questionnaire in the enclosed stamped envelope.

Thank you for your contribution to this study which could not be completed without your participation.

Sincerely,

Signature

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Section I - Demographic Information

Please use an "X" to indicate the most appropriate answer. For open ended questions, please provide your best estimate.

1. My institution is: ____ public, ____ private.
2. My institution's terms are: ____ semesters, ____ quarters.
3. My institution's general student populations is: _____.
4. My institution's college of business student population is: _____.
5. The number of juniors and seniors majoring in accounting is: _____.
6. The number of graduate students majoring or concentrating in accounting is: _____.
7. My institution's business program:
____ is accredited by AACSB ____ is not accredited by AACSB.
8. My institution's accounting program:
____ is accredited by AACSB ____ is not accredited by AACSB.
9. Please provide the following information about yourself:

Position

Primary teaching area

Academic rank

Highest degree attained

Professional certifications

Years of academic experience

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Section II - Accounting Program

Please use an "X" to indicate the most appropriate answer.

- For your institution's accounting program, please indicate the degree(s) offered, and for each degree, whether the degree existed three years ago, is new or revised within the past three years, and the program's structure (e.g., 4+1, 3+2, 2+3, 5, 4, etc.). For degrees planned within the next three years, please indicate whether the degree is new, revised and the structure. If a degree is offered under more than one program structure, please indicate all applicable structures.

Degree Offered				Degree Planned			
Existing	New	Revised	Structure	Degree	New	Revised	Structure
				BA/BS			
				MBA			
				MBA (accounting)			
				MS (accounting)			
				MS (tax)			
				Ph.D./DBA			
				Other			

- What areas of concentration are offered in your institution's accounting program? Please check all that apply and whether the concentration is new (within the past three years) or planned (within the next three years). If your program has no concentrations, please check here (____) and proceed to the next question.

Undergraduate			Graduate			
Offered	New	Planned	Concentration	Offered	New	Planned
			Tax			
			Internal Auditing			
			Systems			
			Public Accounting/Auditing			
			Controllership			
			Corporate Accounting			
			Consulting			
			Government/Not-for-Profit			
			Other (please specify)			

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3. (a) Listed below are various strategies and options available when implementing accounting curricular or program changes in response to the recommendations of the Accounting Education Change Commission or the 150-hour requirement. Please indicate your institution's use of these techniques (mark all that apply).

Undergraduate Program	Curricular and Program Changing Techniques	Graduate Program
	1. Added new required accounting course(s).	
	2. Deleted required accounting course(s).	
	3. Revised content of existing required accounting course(s).	
	4. Added new required non-accounting course(s).	
	5. Deleted required non-accounting course(s).	
	6. Revised content of existing required non-accounting course(s).	
	7. Revised prerequisites for existing course(s).	
	8. Expanded number of accounting electives in program.	
	9. Incorporated new instructional method(s) into existing required accounting course(s).	
	10. Other (please specify).	

- (b) Please indicate the importance of the Accounting Education Change Commission's recommendations in motivating the changes indicated in part (a) above.

Very Unimportant Unimportant Neutral Important Very Important

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- (c) Please indicate the importance of the 150-hour education requirement in motivating the changes indicated in part (a) above.

Very Unimportant Unimportant Neutral Important Very Important

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4. Please indicate (as best you can) the proportion of students taking the following career paths following graduation from your institution's **undergraduate** program before and after the changes for the 150-hour requirement. If the 150-hour requirement is not yet in effect in your state, please check here (_____) and indicate the career paths you **anticipate** in the "Post-150-Hour Requirement" section.

Career Path	Before 150-Hour Requirement	After 150-Hour Requirement
Public Accounting-Big 6 (5)		
Public Accounting-Other		
Corporate/Industry		
Government/Not-for-Profit		
Graduate School		
Unknown		
	100%	100%

5. If your accounting program includes graduate degree options, please indicate (as best you can) the proportions of students taking the following career paths following graduation from your institution's **graduate** program before and after the changes for the 150-hour requirement. If the 150-hour requirement is not yet in effect in your state, please check here (_____) and indicate the career paths you **anticipate** in the "Post-150-Hour Requirement" section.

	Before 150-Hour Requirement	After 150-Hour Requirement
Public Accounting-Big 6 (5)		
Public Accounting-Other		
Corporate/Industry		
Government/Not-for-Profit		
Graduate School		
Unknown		
	100%	100%

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6. Please indicate the extent to which you agree or disagree with the following statements regarding the 150-hour requirement.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a. Student communication skills espoused by the Accounting Education Change Commission (AECC) can be developed in a 150-hour program.					
b. Student intellectual skills espoused by the AECC can be developed in a 150-hour program.					
c. Student interpersonal skills espoused by the AECC can be developed in a 150-hour program.					
d. Student professional orientation can be developed in a 150-hour program.					
e. The change to the 150-hour requirement will significantly benefit the accounting profession.					
f. The 150-hour curriculum will significantly benefit students who aspire to careers in other than public accounting.					
g. Other than being able to sit for the CPA examination, the 150-hour requirement will significantly benefit students who aspire to careers in public accounting.					
h. The 150-hour curriculum will significantly improve student initial success on professional examinations (CPA, CMA, CIA, etc.).					

7. If your institution is located in one of the 41 jurisdictions that has enacted a 150-hour educational requirement, please indicate the effect the requirement has had or is anticipated to have on student enrollment. For all other respondents, please proceed to question 8.

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	Down Significantly	Down Slightly	About Same	Up Slightly	Up Significantly
a. The number of undergraduate students in your program is (will be):					
b. The number of graduate students in your program is (will be):					
c. The number of students participating in your internship program is (will be):					
d. Undergraduate student enrollment in your program over the next five years will be:					
e. Graduate student enrollment in your program over the next five years will be:					

8. What are the strengths of your program in meeting the 150-hour requirement?

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8. Must students complete specified courses before internship eligibility? ____ Yes ____ No

If yes, which ones (please specify)?

9. What proportion of your students perform internships with the following employer types?

____ Big 6 (5) public accounting

____ Other public accounting

____ Corporations/ Industry

____ Government/Not-for-profit

100%

10. Does your institution actively solicit firms to participate in the internship program?

____ Yes ____ No

11. How are students and employers matched for internships?

____ Program administrator makes arbitrary assignments

____ Employer selects students after a series of competitive interviews

____ Program administrator matches student requests and employer choices

____ Other (please specify) _____

12. Are your students in competition with students from other schools for internship positions?

____ Yes ____ No

13. What is the duration of the internship period?

____ < 10 weeks ____ 10-12 weeks ____ 13-15 weeks ____ 16 weeks or more

14. Must the student work full-time during the internship? ____ Yes ____ No

If No, what is the minimum number of hours per week the student must work? _____

15. Are students compensated for their internship? ____ Yes ____ No

If yes, please indicate how the rate of compensation is determined.

____ Student and employer reach an agreement as to the compensation.

____ Program administrator sets the rate of compensation.

____ Other, please specify

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16. Do interns receive formal performance evaluations from employers? ____ Yes ____ No

How frequently (please specify)? _____

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17. What form of academic credit is awarded to students for internships?

- Letter grade Pass/Fail Credit/No credit
 Satisfactory/Unsatisfactory No academic credit is given

18. If academic credit is awarded, how is student performance (grade) determined?

- Employer evaluations only
 Student assignments (as part of internship)only
 Combination of employer evaluation and student assignments
 Other, please specify

19. Please indicate your assessment of past and future internship participation patterns compared to

current participation.

	Down Significantly	Down Slightly	About Same	Up Slightly	Up Significantly
a. Compared to five (5) years ago, student participation in the internship program is:					
b. Over the next five (5) years, student participation in the internship program is predicted to be:					
c. Compared to five (5) years ago, the number of public accounting firms participating is:					
d. Over the next five (5) years, public accounting firm participation is predicted to be:					
e. Compared to five (5) years ago, corporation/industry firms participating are:					
f. Over the next five (5) years, corporation/industry firm participation is predicted to be:					

20. If your accounting program does not include student internships, please list the reason(s) why.

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21. Please indicate the extent to which you agree or disagree with the following statements regarding accounting internships:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) Internships improve the student's collegiate educational experience.					
b) Internships improve a student's subsequent academic performance.					
c) Internships provide feedback on your accounting program curriculum.					
d) Internships help students clarify career objectives.					
e) Internships improve the early employment experience of accountants (reduce "reality shock").					
f) Internships provide students with a recruiting advantage.					
g) Internships help attract higher quality students to your accounting program.					
h) Internships contribute to the career success of accounting graduates.					
i) Internships provide students with a better understanding of business and accounting techniques.					
j) Internships improve student understanding of interpersonal and organizational dynamics.					
k) It is important for students to have completed specified courses (e.g., tax) in the area of their internship work.					

You have completed the questionnaire. Thank you very much for your participation.

If you would like a summary of the study's findings, please complete the following:

Name _____

Address _____

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Table 5: Characteristics of Programs with Accounting Concentrations (Num

Concentration	Comparison of Schools by Size					Comparison of Schools by Accreditation		Comparison by AECC
	<2K	2K-5K	5K-10K	10K-20K	>20K0	Accredited	Not Accredited	Important
Undergraduate:								
Group Size	n=45	n=52	N=52	n=43	n=17	n=108	n=121	n=133
Existing	4^f	8	10	15^m	3	30^m	12^f	27
Planned	1	1	5	4	1	8	5	9
Graduate:								
Group Size:	n=10	n=13	N=31	n=28	n=12	n=69	n=31	n=70
Existing	3	7	6	14	5	28	8	25
Planned	0	3	3	3	3	11	3	10