



### **Peer Reviewed**

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## Abstract

More than 11 million students took distance education courses in 1999 (Hankin, 1999). Distance learning represents a strategic commitment of many colleges and universities, which depends in part on the attitudes and perceptions

of faculty towards distance learning. This research describes current practices and faculty views towards distance learning at the undergraduate and graduate levels. Information on current offerings using distance technology; the willingness of faculty to teach using distance delivery modes; the degree to which requisite distance delivery technologies are used by faculty; and perceived stakeholder demand for distance education were solicited from members of the accounting professorate. Results indicate that one-third of accounting faculty have taught courses utilizing distance delivery, and that over two-thirds of accounting faculty are willing to teach courses utilizing distance delivery. In addition, lower level accounting courses are perceived as most suitable for distance delivery.

### Introduction

Distance education serves the needs of an increasing, non-traditional student population. Distance education can take many forms ranging from the use of email for communications in lieu of class meetings to the extensive use of electronic teaching aids, including live visual transmissions, web boards, and other technologies.

Today only 30 percent of college students are considered traditional full time college students (Allen, 1997). From 1972-1994, the percentage of college students over 25 increased from 29 percent to 41 percent (Gubernick & Ebeling, 1997). Responding to the need created by these changes for flexibility in time and location of instruction, distance education has become a strategic commitment of many colleges and universities.

Bates (1995) describes distance education as developing in four generations. The first generation (1960s) utilized a traditional delivery model where knowledge was transferred in one direction only, from professor to student. The second generation (1970s) utilized more technologies (i.e. audiocassettes, videocassettes), but not the computer. The third generation began with the introduction of the personal computer and incorporates more interaction, including e-mail, chat rooms, video conferencing, and bulletin boards. The fourth generation builds on the third generation capability, adding to it more synchronous interactions. Most distance education is in the third generation, but it is expected to move to the fourth generation as bandwidth increases and software costs decrease. Successful delivery of distance education courses depends, not only upon the competitive use of technology, but also on solid faculty participation and support.

The AACSB Task force on Distance Learning Report (1999) recommended that institutions "...systematically solicit information and perspectives from all involved stakeholder constituencies to provide guidance for distance learning planning. Such perspectives should be sought regularly to assist planning, implementation, program evaluation, maintenance and improvement." The purpose of this study is to assess the current level of support for distance education as well as accounting faculty concerns. The results of this study should provide insight for institutions utilizing distance delivery and for those considering offering programs utilizing distance delivery.

## **Literature Review**

In 1998, the National Center for Educational Statistics (Bradburn, 2002) surveyed 960 institutions and 28,704 faculty members. It revealed that about six percent of instructional faculty and staff taught distance courses. This survey also reported that 90 percent of National Educational Association (NEA) members stated that distance learning courses were offered or being considered at their institutions. Distance learning courses were distributed similarly across fields. These courses were taught at statewide institutions with multiple campuses (50 percent) by full-time faculty (89 percent) who were unlikely to be over the age of 55. This study also found that distance learning faculty were more likely to teach at a community college (68 percent). In an AACSB-sponsored study, Britt and Frand (1999) found that 39 percent of the 232 business schools in 11 different countries offered distance learning programs. Their data indicate that full-time faculty are deeply involved in curriculum development and recruitment (84 percent) and program supervision and governance (66 percent). In 63 percent of survey responses, full-time faculty taught all distance learning courses. The adoption of distance learning programs at eminent universities lends added credibility to distance learning. Harvard's online public health program and Duke University's global MBA broaden the scope of the mission of these institutions as well as create expectations for economies of scale.

#### Interactive Technologies and Distance Education

Although the term distance learning encompasses a wide array of instruction methodologies, as previously discussed, the NEA study (2002) reported that virtually all of the faculty teaching distance learning courses use an interactive technology to teach their courses, with only two percent relying exclusively on one-way, pre-recorded videos. [1] Of the faculty teaching webbased distance learning courses, 83 percent use email to communicate with their students. Of the faculty not teaching web-based courses, 42 percent use email to communicate with their students. Almost all of the respondents (96 percent) have one-on-one communication with their students either through email, chat rooms, threaded discussion groups, or face-to-face meetings.

The 2002 NEA study also found that faculty teaching courses with more student interaction were more likely to hold a positive attitude toward distance learning than faculty with less student interaction. Technical support is also considered key to successful delivery of educational material. The NEA (2002) reports that 76 percent of distance learning faculty rate technical support as good or excellent, and 70 percent report that workshops or training sessions are available to them on a regular basis. These findings confirm prior research by Clark (1993), who found that faculty receptivity, perceptions and attitudes are relatively complex, and that resource support in the form of both technologies and development personnel are critical for building faculty support.

#### Faculty Perceptions and Attitudes

Early research on faculty perceptions and attitudes towards participation in distance learning had mixed findings. Studies by Hendrick (1986), Brock (1987), Mulay (1988) and Dillon (1989) concluded that faculty held negative attitudes; while studies by Mani (1988), Dillon (1989), Johnson & Silvernail (1990), and Taylor and White (1991) found that faculty who taught distance learning courses had significantly more positive attitudes toward distance delivery models. Gilcher & Johnstone (1989), Kirby & Garrison (1989), and Black (1993) found that faculty attitudes become more favorable with experience in teaching distance education courses. This finding is confirmed by a follow-up study in 2000 (NEA 2001) that found that the majority of distance learning faculty (72 percent) held a positive opinion of distance learning.

In a national survey of business college faculty and administrators, Ross & Klug (1999) addressed factors that influence attitudes of business college faculty and administrators towards distance learning at the baccalaureate and masters levels of teaching. Their survey utilized a stratified random sample of 1,045 full-time business faculty and administrators from marketing, management, economics, accounting and finance disciplines. They measured respondents' attitudes towards distance learning and willingness to teach a distance education course. Survey respondents who reported that distance education was appropriate at their institution and in their specific discipline were more receptive to and supportive of distance learning. Those respondents with more knowledge of and/or experience with distance learning reported higher levels of fit than their inexperienced colleagues.

Perceptions of distance learning have also been examined within the business discipline in information systems, economics, marketing, and finance. In a study of distance learning in information systems departments, 12 of 46 respondents planned to use distance learning within the next two years (Morse et al. 1997). Those who did not plan to use distance learning reported that distance education was not viewed as viable because of lack of funding, equipment, administrative support, and faculty support. Most instructors in this study who utilized distance technologies used web based instruction and interactive television. Farinella et al. (2000, 2003) surveyed finance and economics facultys' current distance learning offerings, willingness to teach, perceptions of suitability by specific course area, and current usage of the requisite technologies. In both studies, while faculty indicated that their institutions had adequate resources to offer distance education, they also reported a perceived degradation of quality with the implementation of distance delivery. Previous experience teaching a distance course had a significant positive effect on perceived suitability of courses and on faculty willingness to teach. Although the existing literature

suggests that distance delivery courses do not compromise overall quality, surveyed finance faculty do not believe that their institutions can utilize distance delivery without compromising the overall quality of the course. Interestingly, the majority of finance faculty (67 percent) and economics faculty (54 percent) stated that they are willing to teach using distance delivery. Similar results were reported in a survey of marketing faculty (Langford et al. 2001). In summary, research indicates that faculty members are more likely to view distance learning favorably with increased teaching experience, adequate technical support, and training.

Research on distance learning in accounting is not well developed. This study hopes to provide an understanding of accounting faculty members' attitudes towards distance education and of accounting faculty perceptions of suitability of accounting courses for distance delivery.

## Methodology

An electronic survey of accounting faculty was conducted in December 2002. The addresses were obtained from "Hasselback's Guide to Accounting Faculty". The survey was mailed to 5,915 faculty members, with 666 returned as undeliverable. Based on an estimate of faculty turnover and address changes, a 10 percent to 15 percent return rate was obtained. We received 704 usable responses, resulting in a 13.4 percent response rate.

The survey instrument used was similar to the instrument used by Farinella et al. (2000, 2003) and Langford et al. (2001). Information collected focused on the following:

- 1. Demographic information on the respondents
- 2. Attitudes towards the suitability of 17 distinct accounting courses using distance delivery
- 3. Current usage of technologies employed to support distance learning
- 4. Perceptions of distance delivery models by various stakeholders
- 5. Assessment of the demand for and viability of distance learning programs by the institution.

Summary statistics were calculated for each survey question. These are reported in the next section. Duncan's multiple range test was used to indicate significant differences between responses.

## **Summary Statistics**

Summary statistics present a profile of faculty respondents; stability of academic environment; survey results of perceived suitability of undergraduate and graduate accounting courses for distance delivery; the level of integration of distance delivery into the accounting curriculum at their institutions; and faculty perceptions of demand for distance delivery at their institutions. Survey results are also reported for questions regarding adequacy of technological support, perceived impact on course quality, and planning for distance delivery offerings.

Table One (below), Panel A, provides a profile of faculty respondents.

## Table One

## **Respondent Demographics**

Panel A	Percent
Rank of Respondents	
Lecturer	6.7
Visiting Professor	1.0
Assistant Professor	28.1
Associate Professor	32.6
Full Professor	31.3
Panel B	
Number of Years as a Full Time Faculty Member	
0-5	18.9
6-10	17.9
11-15	18.8
16-20	14.1
> 20	29.9
Panel C	
Do you teach at a public or private institution?	
Public	69.2
Private	30.8

Panel A indicates that 63.9 percent of respondents were senior faculty members, with 32.6 percent associate professors and 31.3 percent full professors. Very few lecturers or visiting professors responded to the survey (6.7 percent and 1.0 percent respectively). Panel B indicates 62.8 percent of respondents were full time faculty members with more than 10 years experience. Panel C indicates over two-thirds of the respondents taught at public institutions.

The next group of questions (shown below in Table Two.) was designed to determine the stability of the faculty member's academic environment; current levels of institutional commitment to distance education instruction; and willingness to teach a course using distance delivery.

## Table Two

## **Accounting Curriculum**

Panel A	Percent
Have substantive changes in pedagogy been made in	
accounting curriculum over the past three years?	
Yes	45.7
No	54.3
Panel B	
Does your institution utilize distance delivery within the accounting curriculum?	
Yes	46.1
No	53.9
Panel C	
Have you ever taught a course using distance delivery in the past five years?	
Yes	35.4
No	64.6
Panel D	
Would you be willing to teach a course using distance delivery?	
Yes	66.3
No	33.7

The majority of the respondents (54.3 percent) indicated that there had been no substantive changes in pedagogy in the accounting curriculum over the past three years. The use of distance delivery appears to be well underway, as 46.1 percent of respondents reported their institutions utilized distance delivery. Although 64.6 percent of respondents had not taught a course utilizing distance delivery in the past five years, 66.3 percent of respondents indicated they would be willing to teach a course utilizing distance delivery.

A third set of questions shown below in Table Three measured the level of integration of distance delivery technologies into the accounting curriculum. Faculty were asked whether specific technologies were currently incorporated into the accounting curriculum. Usage of ten technologies commonly associated with distance delivery were surveyed ordered by intensity of the level of integration. Technologies ranged from the use of email to the use of two-way interactive video. The technologies include electronic enhancements to courses that may or may not serve to substitute for live class sessions (email, electronic databases, web pages, chat rooms, electronic journals, bulletin/web boards) and technologies that fully replace traditional classrooms (internet courses, telecourses, videotaped classroom sessions, and two-way interactive video). Survey results indicate E-mail and web pages are the most widely used technologies. Telecourses, two-way interactive video, and videotaped classroom sessions were the least used technologies.

# Table 3

## **Incorporation of Technology** [1]

	Average Rank [2] (Std. Dev.)	Strongly Disagree (Percent)	Disagree (Percent)	No Opinion (Percent)	Agree (Percent)	Strongly Agree (Percent)	Duncan's Multiple-ran Test [3]		ın's ranı t	ge	
Email	4.40 (.93)	3.9	1.5	3.3	33.6	57.7	A				
Web Pages	4.22 (.99)	4.2	2.1	8.7	37.2	47.8	A				
Electronic Databases	3.76 (1.11)	6.0	7.5	18.0	41.1	27.3		В			
Bulletin/Web Boards	3.56 (1.21)	8.1	11.7	20.7	34.8	24.6		В	С		
Internet Courses	3.25 (1.46)	19.5	14.1	12.6	29.1	24.6			С	D	
Chat Rooms	3.13 (1.26)	14.1	17.1	23.7	31.2	13.8			С	D	
Electronic Journals	3.09 (1.21)	12.3	18.6	30.9	24.3	13.8				D	
Telecourse	2.63 (1.35)	28.2	18.3	26.1	15.3	11.7					Е
Two-Way Interactive Video	2.58 (1.39)	30.3	20.7	21.9	13.5	13.2					E
Videotaped Classroom Sessions	2.51 (1.29)	29.7	21.6	24.3	16.2	8.1					E
(F– Value)[4]	19.67 (.0001)										

[1] The table contains the percentage of responses in each category. Sample size is 333.

[2] The average ranking is the mean response based on the following: 1 =strongly disagree, 2 =disagree, 3 =no opinion, 4 =agree, 5 =strongly agree.

[3] Differences in the groupings from Duncan's multiple-range test indicate statistically significant differences between the means.

[4] The F-value is from a one-way ANOVA test of the null hypothesis that the mean response for each course is equal. The p-value is in parenthesis.

The final row of Table Three reports an F-value for the hypothesis test that the means for each technology are equal. The statistic indicates the means are not equal, and that this is statistically significant at the 0.0001 level. Duncan's multiple range test was used to determine where these differences occur, and the test indicates significant differences in the mean responses between the groupings, while no significant differences exist within the groupings.

The next series of questions (Shown below in Table Four.) asked whether faculty had taught a course using distance delivery within the past five years and, if so, which undergraduate and graduate courses. The survey also asked which courses were currently taught using distance delivery.

	Undergraduate (Percent)	Graduate (Percent)
Managerial	4.42	5.98
Financial	6.55	4.99
Corporate Tax	0.57	0.71
AIS	2.14	0.43
Individual Tax	1.14	0.43
International Accounting	0.00	0.28
Accounting Theory	0.14	0.14
Cost	2.71	0.71
Advanced Taxation	0.43	0.85
Advanced AIS	0.28	0.71
Audit	1.99	0.57
Other Course	3.42	5.41
Advanced Cost	0.28	0.71
Advanced Audit	0.14	0.85
Advanced	1.71	0.28
Intermediate I	2.85	0.28
Intermediate II	3.13	0.28

## Table 4 Courses Taught using Distance Delivery Format [1]

[1] The table contains the percentage of Yes responses for each course. The sample size is 702.

The responses for undergraduate courses shown in Table Four ranged from a high of 6.55 percent for managerial accounting to a low of 0.00 percent for international accounting. Financial and managerial accounting were the most frequently taught courses utilizing distance delivery at the undergraduate level, followed by intermediate II (3.13 percent), intermediate I (2.85 percent), and cost accounting (2.71 percent). Responses for graduate courses identified financial and managerial accounting as the most frequently taught courses utilizing distance delivery (4.99 percent and 5.98 percent, respectively, but indicated decreased usage of distance delivery for other graduate courses as compared to undergraduate.

Responses to courses currently taught utilizing distance delivery indicated that financial accounting was most frequently taught using distance delivery at the undergraduate level, and financial and managerial accounting were most frequently taught using distance delivery at the graduate level. (See Table Five below.) Financial and managerial accounting at the undergraduate and graduate levels are generally required core business courses for non-accounting business majors.

# Table 5

	Undergraduate	Graduate
	(Percent)	(Percent)
Managerial	0.85	2.71
Financial	2.56	2.56
Corporate Tax	0.28	0.43
AIS	1.00	0.43
Individual Tax	0.43	0.43
International Accounting	0.00	0.14
Accounting Theory	0.00	0.14
Cost	1.14	0.57
Advanced Taxation	0.28	0.57
Advanced AIS	0.14	0.28
Audit	1.00	0.43
Other Course	2.28	3.42
Advanced Cost	0.28	0.14
Advanced Audit	0.00	0.00
Advanced	0.71	0.00
Intermediate I	1.00	0.00
Intermediate II	0.43	0.00

# **Courses Currently Taught Using Distance Delivery** [1]

[1] The table contains the percentage of Yes responses for each course. The sample size is 702.

Faculty were then asked which courses they would be willing to teach using distance delivery. (See Table Six below.)

## **Table Six**

# Courses Faculty Are Willing To Teach Using Distance Delivery [1]

	Undergraduate Percent	Graduate Percent
Managerial	25.93	14.39
Financial	33.19	15.67
Corporate Tax	6.84	4.13
AIS	10.11	3.85
Individual Tax	9.26	3.99
International Accounting	4.27	2.99
Accounting Theory	5.70	4.99
Cost	18.09	7.69
Advanced Taxation	4.27	4.42
Advanced AIS	3.13	2.56
Audit	8.69	3.99
Other Course	7.41	6.55
Advanced Cost	6.27	5.13
Advanced Audit	3.28	2.42
Advanced	6.27	1.28
Intermediate I	18.52	4.27
Intermediate II	15.10	3.85

[1] The table contains the percentage of Yes responses for each course. The sample size is 702.

Again, financial and managerial accounting were the top, with 25.93 percent willing to teach managerial accounting and 33.19 percent willing to teach financial accounting at the undergraduate level. At the graduate level, 14.39 percent were willing to teach managerial accounting utilizing distance delivery/ and 15.67 percent were willing to teach financial accounting utilizing distance delivery. Higher proportions of faculty were willing to teach more undergraduate courses than graduate courses, possibly reflecting the difficulty involved in communicating more complex topics via distance delivery.

The survey then sought faculty opinions as to the suitability of 16 distinct accounting courses for distance delivery at the undergraduate and graduate levels. (See Table Seven below.) In it faculty were asked to indicate whether or not a course was suitable for distance delivery by responding based on a five point scale ranging from "strongly agree" to "strongly disagree" with an option of "N/A" to indicate that a course was not offered. To calculate the average ranking,

numerical values of 1 = "strongly disagree", 2 = "disagree", 3 = "no opinion", 4 = "agree", 5 = "strongly agree" were assigned to the responses.

# Table 7

## Courses Identified as Suitable for Distance Delivery [1]

	Average Rank [2] (Std. Dev.)	N/A (Percent)	Strongly Disagree (Percent)	Disagree (Percent)	No Opinion (Percent)	Agree [Percent)	Strongly Agree (Percent)	D Mi F	unca 's ultip lang Tes [3]	an Ie- Ie t
Introduction to Managerial	3.33 (1.37)	6.9	16.3	11.9	6.5	42.3	16.3	A		
Introduction to Financial	3.30 (1.40)	6.5	17.8	11.3	5.4	42.3	16.7	A		
Individual Taxation	3.12 (1.28)	9.7	15.0	13.5	17.4	34.1	10.2		В	
Cost	3.11 (1.31)	9.3	15.6	16.0	13.0	35.4	10.8		В	
AIS	3.07 (1.30)	11.7	14.8	15.6	18.0	28.6	11.3		В	
Corporate Tax	3.02 (1.29)	12.4	15.8	15.2	17.3	30.2	9.1		В	
Auditing	2.79 (1.35)	9.7	21.7	18.9	14.8	26.0	8.9			С
Intermediate	2.64 (1.36)	8.9	25.4	22.6	10.4	24.7	8.0			С
Intermediate	2.62 (1.37)	9.3	26.1	21.9	11.1	23.2	8.4			С
Advanced	2.62 (1.32)	10.8	24.5	21.3	14.1	22.6	6.7			С
(F- Value)[4]	20.82 (.0001)									

[1] The table contains the percentage of responses in each category. Sample size is 539.

[2] The average ranking is the mean response based on the following: 1 = strongly disagree, 2 = disagree, 3 = no opinion, 4 = agree, 5 = strongly agree. N/A (not applicable) responses were not used to calculate the means.

[3] Differences in the groupings from Duncan's multiple-range test indicate statistically significant differences between the means.

[4] The F-value is from a one-way ANOVA test of the null hypothesis that the mean response for each course is equal. The p-value is in parenthesis.

The average faculty response for undergraduate courses ranged from a high of 3.33 for introduction to managerial accounting to a low of 2.62 for intermediate accounting II and advanced accounting. The narrow range of mean values indicates that accounting faculties' attitude towards distance delivery of undergraduate accounting courses were generally indifferent. The average faculty response for graduate courses ranged from a high of 3.29 for managerial accounting to a low of 2.61 for intermediate accounting II. The range of values indicates that accounting faculty attitudes towards distance delivery of graduate accounting courses is also generally indifferent and slightly less favorable than their attitudes towards the delivery of undergraduate accounting courses. These results are slightly more negative than results in marketing (Langford et al. 2001) and in finance (Farinella et al. 2000) and more positive than recent results in economics (Farinella et al. 2003).

Table Seven shows a F-value for the hypothesis test that the means for each undergraduate accounting course are equal. The test indicates the means are not equal and the test statistic is significant at the 0.0001 level. Duncan's multiple-range test results are reported in the final three columns of Table Seven and indicate where these differences occurred. Duncan's multiple range test results indicate significant differences exist between the responses for the ten courses. Lower level courses, including financial and managerial accounting, were perceived as more suitable for distance delivery than upper level courses, in particular, auditing, intermediate accounting I and II, and advanced accounting.

Similarly, Table Eight (below) addresses suitability of graduate courses for distance delivery and reports an F-value for the hypothesis test that the means for each graduate accounting course are equal.

# Table 8

# Graduate Courses Identified As Suitable For Distance Delivery

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	Avg. Rank [2] (Std.)	N/A	Strongly Disagree (Percent)	Disagree (Percent)	No Opinion (Percent)	Agree (Percent)	Strongly Agree (Percent)	Duncan's Multiple Range Test [3]		<del>)</del> -			
Managerial	3.29 (1.33)	14.8	14.5	9.7	11.1	37.0	13.0	A					
Financial	3.26 (1.35)	16.7	14.8	9.8	10.0	35.3	13.4	A					
Individual Tax	2.99 (1.30)	23.8	15.8	9.7	17.6	25.8	7.4		В				
AIS	2.99 (1.32)	23.2	16.0	10.8	16.9	24.5	8.7		В				
International Accounting	2.98 (1.29)	26.0	15.2	9.3	18.7	23.4	7.4		В	С			
Corporate Tax	2.95 (2.95)	21.9	16.9	10.8	17.6	25.2	7.6		В	С	D		
Other Course	2.92 (1.25)	27.6	14.8	7.4	26.0	16.7	7.4		В	С	D		
Advanced AIS	2.89 (1.31)	26.4	16.3	10.8	18.9	19.9	7.8		В	С	D		
Cost	2.88 (1.31)	25.4	16.5	13.0	14.8	23.6	6.7		В	С	D		
Advanced Taxation	2.84 (1.31)	24.5	17.4	11.7	19.5	19.5	7.4		В	С	D	E	
Accounting Theory	2.80 (1.37)	21.7	21.2	11.9	14.5	23.0	7.8		В	С	D	E	F
Audit	2.77 (1.32)	23.6	19.1	13.2	17.3	19.9	7.1			С	D	E	F
Advanced Audit	2.77 (1.35)	26.2	19.3	12.1	16.5	18.4	7.6			С	D	E	F
Advanced Cost	2.76 (1.31)	24.7	18.0	15.2	15.8	19.7	6.7				D	E	F
Intermediate	2.66 (1.32)	28.0	19.1	15.0	14.8	16.9	6.1					E	F
Advanced	2.65 (1.33)	25.8	20.8	14.3	15.2	18.0	5.9					E	F
Intermediate II	2.61 (2.66)	28.6	18.9	16.3	15.2	15.4	5.6						F
(F-Value) <sup>3</sup>	8.79 (.0001)												

Duncan's multi-range test indicates that the means are not equal, and the test statistic is significant at the 0.0001 level. The multiple-range test results are reported in the final six columns of Table Eight and indicate where these differences occurred. Again, lower level courses, financial and managerial accounting specifically, were perceived as most suitable for distance delivery, followed by graduate courses in individual taxation and accounting information systems. Upper level courses, including intermediate accounting I and II and advanced accounting in particular, were not viewed favorably for distance delivery.

Faculty members were asked for their perceptions of demand for distance delivery among various stakeholder groups, including students, faculty members, college-level administrators, university-level administrators, state-level administrators, and employers. The results are shown below in Table Nine.

<sup>[1]</sup> The table contains the percentage of responses in each category. Sample size is 539.

<sup>[2]</sup> The average ranking is the mean response based on the following: 1 = strongly disagree, 2 = disagree, 3 = no opinion, 4 = agree, 5 = strongly agree. N/A (not applicable) responses were not used to calculate the means.

<sup>[3]</sup> Differences in the groupings from Duncan's multiple-range test indicate statistically significant differences between the means.

# Table 9

## Groups Identified As Receptive To The Use Of Distance Delivery [1]

	Average Rank [2] (Std. Dev.)	Strongly Disagree (Percent)	Disagree (Percent)	No Opinion (Percent)	Agree (Percent)	Strongly Agree (Percent)	Duncan Multiple range Te <b>[3]</b>		an ' iple- e Te: <b>3]</b>	s st
University Level Administrators	3.93 (.89)	1.5	4.7	19.7	47.3	26.8	A			
College Level Administrators	3.85 (.90)	1.3	7.6	18.5	50.5	22.1	A			
State Level Administrators	3.68 (.92)	2.1	2.3	43.7	29.5	22.5	A	В		
Students	3.56 (1.00)	3.6	13.8	18.3	51.2	13.0		в	С	
Employers	3.42 (.85)	2.3	8.5	43.1	37.2	8.9			С	
Faculty Members	2.70 (1.00)	10.4	41.6	16.8	30.3	1.0				D
(F-Value) <b>[4]</b>	26.31 (.0001)									

[1] The table contains the percentage of responses in each category. Sample size is 529.

[2] The average rank is the mean response based on the following: 1 =strongly disagree, 2 =disagree, 3 =no opinion, 4 =agree, 5 =strongly agree.

[3] Differences in the groupings from Duncan's multiple-range test indicate statistically significant differences between the means.

[4] The F-value is from a one-way ANOVA test of the null hypothesis that the mean response for each course is equal. The p-value is in parenthesis.

The respondents reported the lowest level of demand among faculty members (2.70) and the highest level of demand among university-level administrators (3.93) and college level administrators (3.85). Perceived level of demand among employers and students were between these two groupings. The F-value for the hypothesis test that the means for each stakeholder group are equal indicated that the means were not equal. The test statistic is significant at the 0.0001 level. Duncan's multiple range test was again conducted and indicated significant differences between the mean responses of university and college level administrators and faculty members. The final set of questions addressed the adequacy of technological support, perceived impact on course quality, and the level of institutional planning for distance delivery offerings. Results are shown below in Table Ten.

# Table Ten

# **Assessment Of Institution's Distance Offerings**

Panel A	Percent
My institution has adequate technology to offer a course using distance	
delivery.	
Strongly Disagree	5.31
Disagree	14.61
No Opinion	5.69
Agree	44.40
Strongly Agree	29.98
Mean	3.79
Standard Deviation	1.17
Panel B	
My institution can offer a distance course without compromising the overall	
quality of the course.	
Strongly Disagree	13.85
Disagree	25.62
No Opinion	14.61
Agree	34.72
Strongly Agree	11.2
Mean	3.03
Standard Deviation	1.27
Panel C	
Has a professional marketing survey been conducted by your institution to	
measure the demand for distance offerings?	
Ves	5 69
No	31 12
Linknown	63.19
	00.10
Panel D	
Has a professional feasibility study been conducted by your institution?	
Yes	9.87
No	27.32
Unknown	62.81

A total of 74 percent of accounting faculty agreed that their institution had adequate technology to offer courses utilizing distance delivery (29.98 percent strongly agreeing and 44.4 percent agreeing). The mean value of 3.71 indicates

faculty perceive their technological readiness to offer distance delivery favorably. On the question of whether distance delivery compromises the overall quality of courses, the results were fairly evenly split. Over 46 percent of faculty perceive no compromise in quality, and almost 40 percent perceive a compromise. The mean value of 3.03 reflects this difference.

Finally, 31 percent of faculty reported that no marketing survey had been conducted to measure the demand for distance learning; however, 63 percent of respondents did not know whether a survey had been conducted. Likewise, in response to a question asking whether a professional feasibility study had been conducted, 27 percent responded no, and 63 percent did not know.

## Conclusions

The survey's results indicate over one third of accounting faculty respondents taught a course utilizing distance delivery in the past five years, and over two thirds of accounting faculty respondents were willing to teach a course utilizing distance delivery. The results also indicate that over two thirds of respondents believe their institution had adequate technology to support the use of distance delivery. That there is strong interest in teaching using distance delivery is supported by respondents' strong perception of adequate technology to implement distance courses being available. The literature indicates faculty willingness to teach utilizing distance delivery is strongly affected by adequacy of technology, and our results support this belief.

Accounting faculty members appear most willing to teach the introductory courses utilizing distance delivery, and in fact report teaching those courses. These courses are also service courses to non-accounting majors and generally have high student numbers. This result may reflect the extent that specific course content changes, with lower level courses that provide fundamental concepts changing the least. This result may also reflect the extent to which support materials (including electronic test banks, websites supplying presentations, quizzes, study guides, and other student support materials) are available from textbook publishers, with distance delivery support materials more fully developed for lower level courses.

Finally, accounting faculty survey respondent opinions are mixed as to whether distance delivery compromises the overall quality of a course, with 39 percent perceiving a degradation in quality, and 46 percent perceiving no degradation in course quality. This result is more favorable than results in finance and economics, where approximately 60 percent of faculty perceived degradation in course quality with distance delivery. This result may reflect the increased availability distance delivery course materials in accounting or a greater familiarity of accounting faculty with technology tools as compared to finance or economics faculty.

## Footnote

[1]. This survey included only NEA members. Part-time faculty who taught only one course would be less likely to be an NEA member.

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