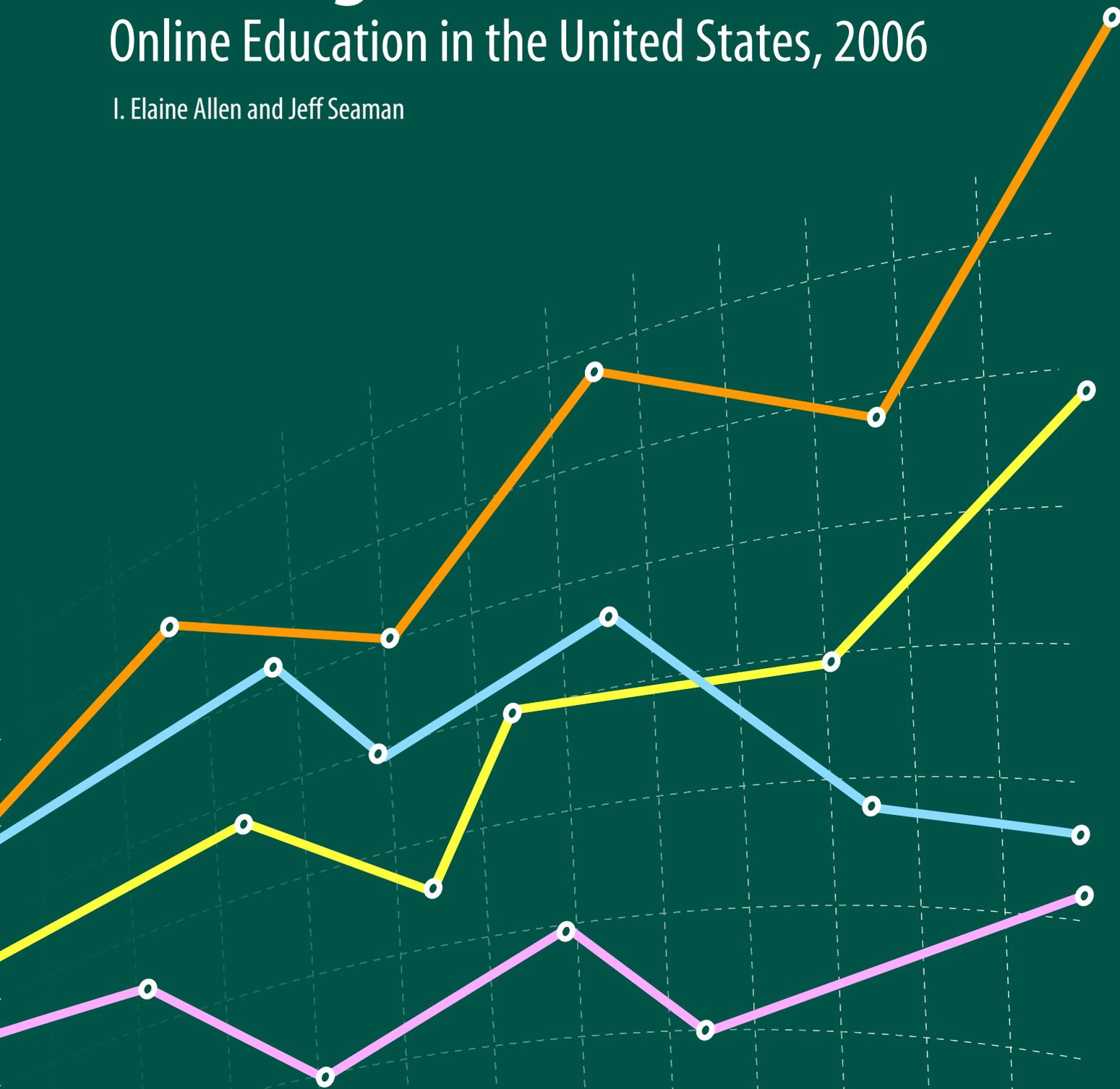


Making the Grade

Online Education in the United States, 2006

I. Elaine Allen and Jeff Seaman



Neither this book nor any part may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, microfilming, and recording, or by any information storage or retrieval system, without prior permission in writing from the publisher.

The consent of the Sloan Consortium (Sloan-C) does not extend to copying for general distribution, for promotion, for creating new works, or for resale. Specific permission must be obtained in writing from Sloan-C for such copying. Direct all inquiries to Sloan-C, at Olin Way, Needham, MA 02492-1200, or to publisher@sloan-c.org.

Copyright ©2006 by Sloan-C™
All rights reserved. Published 2006
Printed in the United States of America
9 8 7 6 5 4 3 2 1

Making the Grade

Online Education in the United States, 2006

I. Elaine Allen, Ph.D.

Associate Professor of Statistics & Entrepreneurship
Co-Director, Babson Survey Research Group
Babson College

Jeff Seaman, Ph.D.

Chief Information Officer, Survey Director
The Sloan Consortium
Olin and Babson Colleges
Co-Director, Babson Survey Research Group
Babson College

November 2006

Data collection for this report was made possible by a grant from the Alfred P. Sloan Foundation. The Sloan Consortium (Sloan-C) acts as the publisher. In order to ensure objectivity, Sloan-C does not have any editorial control over the survey design, data capture, data analysis, or presentation of the findings. The authors wish to thank the Sloan-C Publications Director for her wonderful efforts in improving the report, and Sloan-C itself for its publication and distribution efforts.

The Sloan Consortium (Sloan-C) has its administrative home at Olin and Babson Colleges. For more information about Sloan-C, visit www.sloan-c.org. For more information about Olin and Babson Colleges, visit www.olin.edu and www.babson.edu.

CONTENTS

Executive Summary	1
Has the Growth of Online Enrollments Begun to Plateau?	1
Who is Learning Online?	2
What Types of Institutions Have Online Offerings?	2
Have Perceptions of Quality Changed for Online Offerings?	2
What are the Barriers to Widespread Adoption of Online Education?	3
What is Online Learning?	4
Detailed Survey Findings	5
How Many Students are Learning Online?	5
Who Offers Online Courses and Programs?	8
In for the Long Term?	9
Are these New Students?	10
Learning Outcomes	11
Barriers to Widespread Adoption of Online Learning	12
Partner Organizations	15
Survey Methodology	16
Appendix – Additional Tables	17
How Many Students are Learning Online?	17
Who Offers Online Courses and Programs?	17
In for the Long Term?	18
Are these New Students?	18
Learning Outcomes	19
Barriers to Widespread Adoption of Online Learning	20

EXECUTIVE SUMMARY

Making the Grade: Online Education in the United States, 2006 represents the fourth annual report on the state of online learning in U.S. higher education. This year's study, like those for the previous three years, is aimed at answering some of the fundamental questions about the nature and extent of online education. Supported by the Alfred P. Sloan Foundation and based on responses from over 2,200 colleges and universities, the study addresses the following key questions:

HAS THE GROWTH OF ONLINE ENROLLMENTS BEGUN TO PLATEAU?

Background: For the past several years, online enrollments have been growing substantially faster than the overall higher education student body. However, last year's study, while reporting the same numeric increase as the previous year, had a lower percentage growth rate. Could this be an early indicator that online enrollment growth has finally begun to plateau?

The evidence: There has been no leveling of the growth rate of online enrollments; institutions of higher education report record online enrollment growth on both a numeric and a percentage basis.

- Nearly 3.2 million students were taking at least one online course during the fall 2005 term, a substantial increase over the 2.3 million reported the previous year.
- The more than 800,000 additional online students is more than twice the number added in any previous year.

WHO IS LEARNING ONLINE?

Background: There is some evidence that online education appeals to a different type of student from those who do face-to-face instruction. Online students tend to be older, and often hold additional employment and family responsibilities, as compared to the more traditional student. Do these differences mean that online students are taking different level courses or studying at different types of institutions?

The evidence: The population of online students is a close match to the general higher education student body, but the mix of schools at which they study is not.

- Online students, like the overall student body, are overwhelmingly undergraduates. The proportion of graduate-level students is slightly higher in online education relative to the overall higher education population.
- Online students, especially undergraduates, are more likely to be studying at Associates institutions than are their face-to-face contemporaries.

WHAT TYPES OF INSTITUTIONS HAVE ONLINE OFFERINGS?

***Background:** The previous three reports in this series have shown a very uneven distribution of online course and program offerings by type of institution. Public institutions and the largest institutions of all types have consistently been at the forefront of online offerings. Those that are the least likely to offer online courses, and typically have the most negative opinions about online education in general, have been the small, private, four-year institutions.*

The evidence: This year's results show no major changes from previous patterns. The same types of institutions are in the forefront of online offerings.

- More than 96 percent of the very largest institutions (more than 15,000 total enrollments) have some online offerings, which is more than double the rate observed for the smallest institutions.
- The proportion of institutions with fully online programs rises steadily as institutional size increases, and about two-thirds of the very largest institutions have fully online programs, compared to only about one-sixth of the smallest institutions.
- Doctoral/Research institutions have the greatest penetration of offering online programs as well as the highest overall rate (more than 80%) of having some form of online offering (either courses or full programs).

HAVE PERCEPTIONS OF QUALITY CHANGED FOR ONLINE OFFERINGS?

***Background:** The first study in this series found that a majority of Chief Academic Officers rated the learning outcomes for online education “as good as or better” than those for face-to-face instruction. The following year’s report displayed similar results. Do academic leaders hold the same opinion today, given the rapid growth in the numbers of online students?*

The evidence: By an increasing margin, most Chief Academic Officers believe that the quality of online instruction is equal to or superior to that of face-to-face learning.

- In 2003, 57 percent of academic leaders rated the learning outcomes in online education as the same or superior to those in face-to-face. That number is now 62 percent, a small but noteworthy increase.
- The proportion who believe that online learning outcomes are superior to those for face-to-face is still relatively small but has grown by 40 percent since 2003 from 12.1 percent in 2003 to 16.9 percent.

WHAT ARE THE BARRIERS TO WIDESPREAD ADOPTION OF ONLINE EDUCATION?

Background: Previous studies in this series have identified a number of areas of concern for the potential growth of online offerings and enrollments. Academic leaders have commented that their faculty often don't accept the value of online learning and that it takes more time and effort to teach an online course. To what extent do these leaders see these issues and others as critical barriers to the widespread adoption of online learning?

The evidence: Problem areas identified in previous years are still seen as areas of concern among academic leaders.

- Only 4.6 percent of Chief Academic Officers agreed that there are no significant barriers to widespread adoption of online learning.
- Nearly two-thirds of the academic leaders cite the need for more discipline on the part of online students as a critical barrier.
- Faculty issues, both acceptance of online and the need for greater time and effort to teach online, are also important barriers.
- Neither a perceived lack of demand on the part of potential students nor the acceptance of an online degree by potential employers was seen as a critical barrier.

WHAT IS ONLINE LEARNING?

The focus of this report is online education. To be consistent with previous work, we have applied the same definitions used in our three prior annual reports. These definitions were presented to the respondents at the beginning of the survey, and then repeated in the body of individual questions where appropriate.

Online courses, the primary focus of this report, are those in which at least 80 percent of the course content is delivered online. “Face-to-face” instruction includes those courses in which zero to 29 percent of the content is delivered online; this category includes both traditional and Web facilitated courses. The remaining alternative, blended (sometimes called hybrid) instruction is defined as having between 30 percent and 80 percent of the course content delivered online. While the survey asked respondents for information on all types of courses, results of the analysis of blended options will be presented in a future publication; the current report is devoted to online only.

While there is a great deal of diversity among course delivery methods used by individual instructors, the following is presented to illustrate the prototypical course classifications used in this study.

Proportion of Content Delivered Online	Type of Course	Typical Description
0%	Traditional	Course with no online technology used — content is delivered in writing or orally.
1 to 29%	Web Facilitated	Course that uses web-based technology to facilitate what is essentially a face-to-face course. Uses a course management system (CMS) or web pages to post the syllabus and assignments, for example.
30 to 79%	Blended/Hybrid	Course that blends online and face-to-face delivery. Substantial proportion of the content is delivered online, typically uses online discussions, and typically has some face-to-face meetings.
80+%	Online	A course where most or all of the content is delivered online. Typically have no face-to-face meetings.

Schools may offer online learning in a variety of ways. The survey asked respondents to characterize their face-to-face, blended, and online learning by the level of the course (undergraduate, graduate, continuing education, etc.). Likewise, respondents were asked to characterize their face-to-face, blended, and online program offerings for certificate, associate, bachelors, masters, doctoral, and professional programs.

DETAILED SURVEY FINDINGS

How Many Students are Learning Online?

Online enrollment growth continues unabated, tops 3 million.

In 2003, the first in this series of annual reports on the state of online learning in U.S. higher education, *Sizing the Opportunity: The Quality and Extent of Online Education in the United States, 2002 and 2003* was released. The initiation of this annual study emerged from a search for an authoritative answer to a simple question: “How many students are learning online?” The answer determined by that first study was that for the fall 2002 term, slightly more than 1.6 million students took at least one online course at U.S. degree-granting institutions. This same study asked institutions to predict the rate of growth (or decline) in their online enrollments for the following year, and respondents projected an

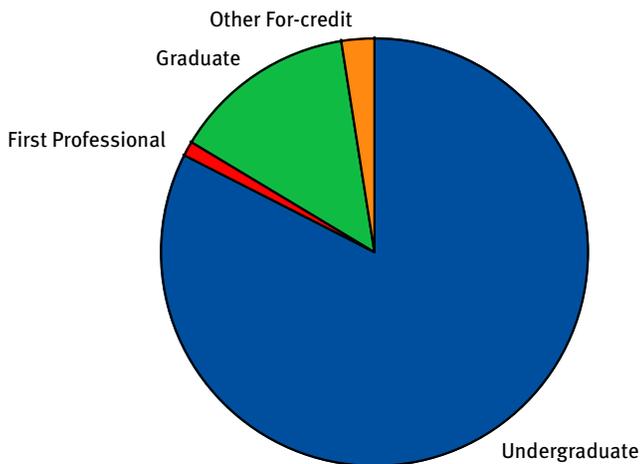
average annual growth rate of 19.8 percent. This number was substantially above the annual rate of increase in the overall population of higher education students, whose annual growth has been estimated as between 0.8 and 1.3 percent. The second annual study, *Entering the Mainstream, The Quality and Extent of Online Education in the United States, 2003 and 2004*, found that the overall growth in the number of online learners actually exceeded the optimistic projections of the previous year, increasing at a 22.9 percent rate, to reach 1.9 million online students for fall 2003.

STUDENTS TAKING AT LEAST ONE ONLINE COURSE - FALL 2005

Undergraduate	2,621,713
First Professional	39,350
Graduate	443,827
Other for-credit	75,159
Total	3,180,050

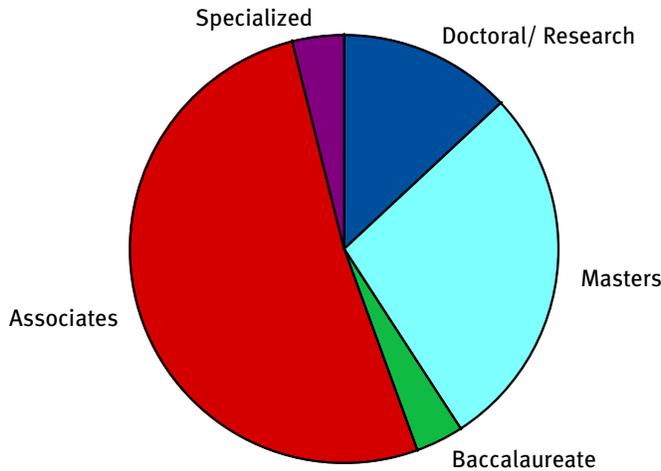
This yearly increase of about 360,000 new online learning students was matched by the results of the 2005 study, *Growing by Degrees, Online Education in the United States, 2005*, with more than 2.3 million students taking at least one online course during the 2004 fall term. Despite a similar increase in numerical terms, the larger base population meant that the actual percentage growth was somewhat lower (18.2%) than both the previous year’s rate and institutions’ own predictions of their rate of growth. Some observers had postulated that this slowing of the rate of growth might mark the beginning of a plateau in online enrollments.

LEVEL OF STUDENT TAKING AT LEAST ONE ONLINE COURSE - FALL 2005



Contrary to such expectations, the results from this, our fourth annual study, clearly show there has been no leveling in the growth rate. Higher education institutions taught nearly 3.2 million online students during the fall term of 2005, an increase of about 850,000 students and a growth rate of 35 percent. This year marks both the largest absolute increase in the number of online students and the largest percentage increase. The overall size of the higher education student population is estimated to be 17 million with online students now representing close to 17 percent of all higher education students.

TYPE OF INSTITUTION FOR STUDENTS TAKING AT LEAST ONE ONLINE COURSE - FALL 2005



Who are these 3.1 million students? The overwhelmingly majority (over 80%) are studying at the undergraduate level with only 14 percent taking graduate level courses and the remainder working towards a first professional degree (chiropractic, dentistry, medicine, optometry, veterinary medicine, law, etc.) or in some other for-credit course.

Using survey results and figures from the most recent *Digest of Education Statistics, 2005* to compare enrollment patterns shows slight variations in the proportions of students by education type. The actual proportion of undergraduates in online education (82.4%) is slightly below that of the total population of higher education students (85.6%), and first

professional degree students are also slightly underrepresented compared to the overall higher education population (1.2% of the online population compared to 1.9% overall). Graduate level students, in contrast, are a bit overrepresented (14.0% of online versus 12.4% of the general population).

STUDENTS TAKING AT LEAST ONE ONLINE COURSE - FALL 2005

	Doctoral/ Research	Masters	Baccalaureate	Associates	Specialized
Undergraduate	252,230	608,210	97,491	1,498,246	69,542
First Professional	5,383	699	549	4,872	8,531
Graduate	129,103	224,904	9,226	600	38,904
Other for-credit	4,190	5,990	406	43,804	1,453
Total	390,905	839,802	107,672	1,547,522	118,429

Examining enrollment patterns by institutional type yields strikingly different results between online education and all of higher education. More than half (51.5%) of all online students are studying at two-year Associates institutions, compared to 37.9 percent of the overall higher education student population (*Digest of Education Statistics, 2005*). This pattern is just as pronounced among undergraduate-level students, with Associates institutions teaching nearly six in ten (59.3%) of all undergraduate online students (compared to 44% of all undergraduates). Associates institutions are clearly making more inroads among the online learners than they have for the higher education student population in general.

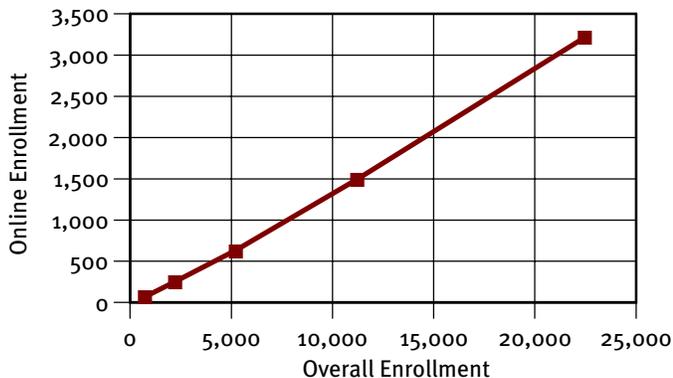
As might be expected, the largest institutions teach the greatest number of online students. This is due not just to their larger size translating into a larger absolute number of students, but also because the larger the institution, the more likely it is to have developed online courses and online programs.

MEAN NUMBER OF ONLINE STUDENTS PER INSTITUTION - FALL 2005

	Doctoral/ Research	Masters	Baccalaureate	Associates	Specialized
Undergraduate	1017.1	988.3	148.7	797.5	84.2
First Professional	21.7	1.1	0.8	2.6	10.3
Graduate	520.6	365.5	14.1	0.3	47.1
Other for-credit	16.9	9.7	0.6	23.3	1.8

Institutional size has a clear impact on the average number of online students at institutions. The largest institutions (overall enrollments of 15,000 or more) are each teaching an average of more than 3,200 online students at the undergraduate level. This

MEAN UNDERGRADUATE ONLINE ENROLLMENT BY SIZE OF INSTITUTION - FALL 2005



compares to about half that amount (1,500 online students) for the next smaller-sized institution type (those with overall enrollments between 7,500 and 14,999). The average number of online students enrolled is directly proportional to the size of the institution. For each institutional size type, the average number of students is around 20 percent of the lower range of each size type, except for the smallest of the institutions (those with less than 1,500 total students). However, the proportion of the student population that is taking at least one online course has begun to reach a level that they can no longer be considered insignificant for institutions of all sizes.

MEAN NUMBER OF ONLINE STUDENTS PER INSTITUTION - FALL 2005

	Under 1500	1500- 2999	3000- 7499	7500- 14999	15000+
Undergraduate	69.3	257.4	636.1	1498.4	3218.6
First Professional	4.1	0.7	0.5	5.3	77.0
Graduate	6.6	21.6	66.9	227.5	743.4
Other for-credit	4.0	20.7	9.6	5.3	108.7

Not surprisingly, the Doctoral/Research and Master’s institutions have the largest average online enrollments since they are more likely on average to be the largest schools. Associates institutions also have a sizable average online enrollment (nearly 800 undergraduate students per institution), but the large number of Associates institutions is what accounts for the large number of online students at such schools.

Who Offers Online Courses and Programs?

The largest institutions continue to lead in online offerings.

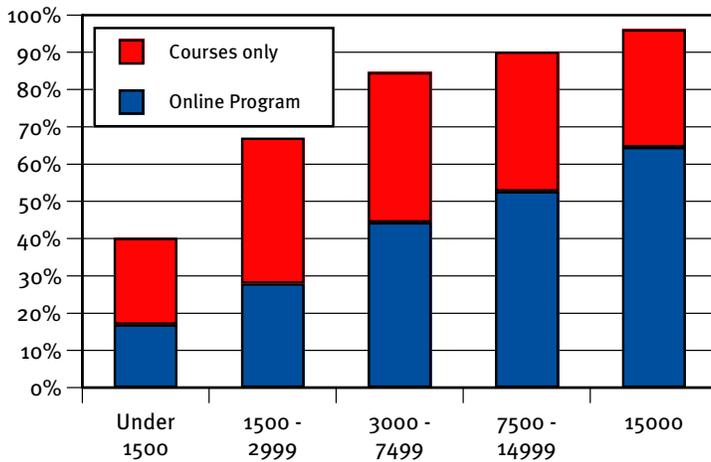
The previous three reports in this series have shown a very uneven distribution of online course and program offerings by type of institution. Public institutions and the largest institutions of all types have consistently been at the forefront of online offerings. Those that are the least likely to offer online education, and typically have the most negative opinions about it, have been the small, private, four-year institutions. This year's results show no major changes to that pattern.

ONLINE OFFERINGS - FALL 2005

Online program	31.4%
Courses only	31.5%
No online	37.0%

Not all schools offer online courses, and not all schools that have online courses offer fully online programs. Examining the pattern of online offerings does show some interesting patterns when the results are compared to the distribution of online students.

ONLINE OFFERINGS BY SIZE OF INSTITUTION - FALL 2005



Doctoral/Research institutions, which enroll 13 percent of all online students, have the greatest penetration of offering online programs as well as the highest overall rate (more than 80%) of having some form of online offering (either courses or full programs). Although Associates schools have by far the largest contingent of online students, they trail both Doctoral/Research and Master institutions in the proportion with online programs or any type of online offering. This matches the distribution we observed for the average number of online students per institution, where these three types of institutions were ranked in the same order.

ONLINE OFFERINGS - FALL 2005

	Doctoral/Research	Masters	Baccalaureate	Associates	Specialized
Online program	55.7%	43.6%	17.2%	31.2%	26.0%
Courses only	24.9%	33.9%	24.0%	39.8%	22.7%
No online	19.4%	22.5%	58.8%	29.0%	51.3%

There is a very strong positive relationship between institutional size and online program offerings: the larger the institution, the more likely it is to have a fully online program, and the more likely it is to have some form of online offering. More than 96 percent of the very largest institutions (over 15,000 total enrollments) have some online offerings, which is more than double the rate observed for the smallest institutions. The proportion of institutions with fully online programs also rises steadily as institutional size increases, and about two-thirds of the very largest institutions have fully online programs, compared to only about one-sixth of the smallest institutions. The difference in online program offerings between institutional types is just as striking, Doctoral/Research institutions are far more likely to have online programs than are Baccalaureate institutions.

In for the Long Term?

The proportion of academic leaders reporting online as part of their long-term strategy continues to grow.

One criticism of online education has been that while it may serve some students for some specialized areas, it may not be well suited to meet the core needs of higher education. Our previous studies have addressed several aspects of this belief, with mixed results. Topics investigated have included perceptions of the quality of online courses, faculty acceptance (both reported later in this report), core/adjunct faculty mix, and the importance of online education to long-term institutional strategy. The 2005 study reported that schools were using the same mix of core and adjunct faculty for their online offerings as they were for their face-to-face courses.

ONLINE EDUCATION IS CRITICAL TO THE LONG-TERM STRATEGY OF MY INSTITUTION

	2003	2004	2005	2006
Agree	48.8%	53.5%	56.0%	58.4%
Neutral	38.1%	33.7%	30.9%	27.4%
Disagree	13.1%	12.9%	13.1%	14.2%

For online education to continue its rapid growth, it must be perceived as important by the Chief Academic Officers who are planning tomorrow's educational offerings. Chief Academic Officers were asked again this year to rate their level of agreement with the statement that online education is critical to the long-term strategy of their school.

The previous three years responses show a continual increase in the proportion of Chief Academic Officers who agree with this statement, growing a few percentage points a year, from 48.8 percent the first year to 56.0 percent last year. This year's results follow the same pattern, with overall agreement now at 58.4 percent.

ONLINE EDUCATION IS CRITICAL TO THE LONG-TERM STRATEGY OF MY INSTITUTION

	Doctoral/ Research	Masters	Baccalaureate	Associates	Specialized
2006	61.0%	65.1%	37.3%	67.0%	52.0%
2005	52.4%	55.7%	27.7%	72.2%	46.5%
2004	56.2%	48.9%	25.8%	67.1%	48.7%
2003	53.7%	46.5%	31.1%	57.7%	38.5%

As reported in previous years, almost all types and sizes of institutions show a steady increase in the importance of online education to their long-term strategy. Although Associates schools continue to exhibit the highest level of agreement (67%), an even more interesting finding is the marked jump in agreement among the other institutional categories. Doctoral/Research, Masters, and Baccalaureate institutions all reported increases of nearly ten percentage points in the level of agreement, and for Specialized schools the increase was 5.5 percentage points. For each of these institutional types, the level of agreement was at least five percentage points higher than those reported in any of the previous years' surveys. This development bears watching to see if it becomes a trend which may signal a possible turning point in the importance of online education for the long-term strategy of all types of institutions.

Are these New Students?

The belief that online education serves students who would not otherwise be served is pervasive.

A critical question for those who support online education has been to determine whether online learning is merely a different way to serve the existing student base, or whether it provides opportunities for an entirely new group of students. Measuring the specific characteristics of online students is beyond the scope of this study, but we are able to probe the beliefs of those running and planning both face-to-face and online programs and courses. Chief Academic Officers were asked the degree of their belief that “Online education reaches students not served by face-to-face programs.”

ONLINE EDUCATION REACHES STUDENTS NOT SERVED BY FACE-TO-FACE PROGRAMS

Agree	72.6%
Neutral	23.0%
Disagree	4.3%

There is an overwhelming level of agreement with this statement. Unlike virtually every other opinion about online education that we have measured in the four years of these studies, there appears to be no difference among the various types and sizes of institutions in their agreement with this statement. This indicates a widespread belief that online education provides a level of access to those who would not otherwise be able to attend college on campus.

It is not as clear whether Chief Academic Officers believe that online education serves *only* those who would not otherwise be served. There is some evidence many administrators, especially those using online offerings to provide schedule flexibility for their on-campus students or to free up limited physical space such as classrooms, believe that online learning serves both types of students. Determining the relative proportions of how online education serves these two groups is beyond the scope of this study, however.

ONLINE EDUCATION REACHES STUDENTS NOT SERVED BY FACE-TO-FACE PROGRAMS

	Doctoral/ Research	Masters	Baccalaureate	Associates	Specialized
Agree	70.6%	77.7%	69.1%	75.5%	65.8%
Neutral	24.2%	17.4%	27.5%	20.3%	31.5%
Disagree	5.2%	5.0%	3.4%	4.3%	2.7%

Learning Outcomes

A majority of academic leaders continues to believe online is as good as or better than face-to-face.

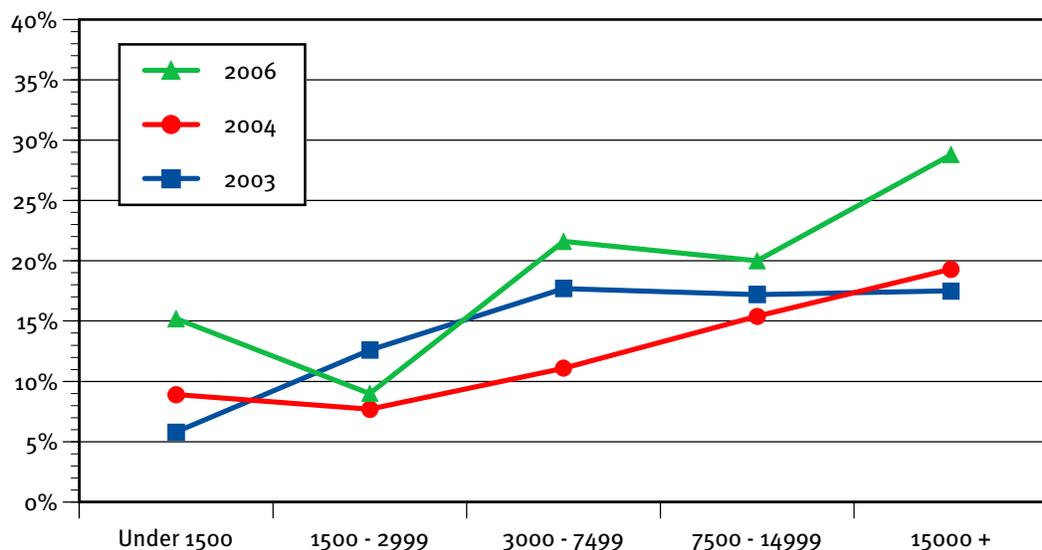
The most continually surprising survey finding to those new to online is that a majority of Chief Academic Officers rated learning outcomes for online instruction as the same or superior to those for face-to-face instruction. This result was first observed in 2003, when 57 percent of all academic leaders surveyed responded that the learning outcomes in online education were on a par or better than those for face-to-face instruction. This is by no means universal endorsement of the quality of online courses, as almost four in ten academic leaders still feel it to be inferior. Nevertheless, the consistency of this majority response and the small but measurable increase in this rating continues to be at odds with the lingering belief that sacrificing quality necessarily results from moving instruction online.

LEARNING OUTCOMES IN ONLINE EDUCATION COMPARED TO FACE-TO-FACE

	2003	2004	2006
Superior	0.6%	1.0%	1.8%
Somewhat superior	11.7%	10.0%	15.1%
Same	44.9%	50.6%	45.0%
Somewhat inferior	32.1%	28.4%	30.3%
Inferior	10.7%	10.1%	7.8%

Results for 2004 were very similar, with slightly more than 60 percent of Chief Academic Officers rating the learning outcomes for online instruction as equal to or better than those of face-to-face courses. The most recent results have 62 percent of all respondents rating the learning outcomes as equal to or superior, which is a relatively small increase. There is, however, a much larger change in the proportion that think online is superior, growing from 12.1 percent in 2003 to 16.9 percent in the most recent survey, which is a 40 percent increase. There has been a small drop in the proportion that rank online learning outcomes in the lowest category (“inferior to face-to-face”), which is now 7.8 percent, down from 10.7 percent in the first year.

PROPORTION REPORTING LEARNING OUTCOMES FOR ONLINE ARE SUPERIOR TO FACE-TO-FACE BY SIZE OF INSTITUTION AND YEAR



The steady increase in the number of academic leaders who believe that online learning outcomes are superior to those for face-to-face is evident for most sizes of schools. The smallest schools were the least positive in the first study (only 5.8% thinking online as superior), but have shown the greatest change (now up to 15.2%). The largest schools continue to be among the most positive towards online learning, and this has continued. Nearly 80 percent (79.1%) of academic leaders at the largest schools (those enrollments of 15,000 or more) now rate online learning outcomes as the same or better than those for face-to-face. An impressive 28.8 percent of these leaders believe online to be superior for student learning outcomes.

Barriers to Widespread Adoption of Online Learning

Less than 5 percent believe there are no significant barriers.

Chief Academic Officers have the primary responsibility for the conduct and planning of each school’s academic offerings, and as such, their opinions about online education play a critical role in understanding how and where online may continue its growth. These academic leaders are very positive about a number of aspects of online education. Previous reports in this series have shown that they believe students are at least as satisfied with online instruction as they are with face-to-face classes, that evaluating the quality of online instruction is no more difficult than for face-to-face, that online education is part of their long-term strategy, and that an increasing majority view the quality of online education as the same or better than face-to-face instruction.

A number of concerns have been apparent as well. Chief Academic Officers have reported that online instruction takes more time and effort than face-to-face courses, that students need more discipline to succeed in online courses, and that much of their faculty have yet to accept the value of online instruction.

THERE ARE NO SIGNIFICANT BARRIERS TO WIDESPREAD ADOPTION OF ONLINE LEARNING

Agree	4.6%
Neutral	52.1%
Disagree	43.3%

Previous studies have noted the dichotomy of Chief Academic Officers’ positions; on the one hand, they have a high opinion of a number of aspects of online learning, have made it part of their long-term strategy, and are presiding over impressive levels of growth in online enrollments. On the other hand, their issues about faculty acceptance and the time and effort required to teach online may put significant limits on how rapidly their online programs can grow. This year’s study revisits a number of these concerns to see if the large growth in the numbers of online

learning students has translated to changes in attitudes on these potential problem issues. Do these academic leaders see significant barriers to the widespread adoption of online learning?

The short answer is that very few academic leaders see no significant barriers to widespread adoption of online learning, as only 4.6 percent of all Chief Academic Officers agreed that “There are no significant barriers to widespread adoption of online learning.” This belief is pervasive; even among those who are the most positive towards online instruction (academic leaders at the largest institutions) only one in ten believe that there are no significant barriers.

THERE ARE NO SIGNIFICANT BARRIERS TO WIDESPREAD ADOPTION OF ONLINE LEARNING

	Under 1500	1500–2999	3000–7499	7500–14999	15000+
Agree	3.2%	2.7%	5.2%	8.8%	10.6%
Neutral	52.2%	51.1%	53.2%	47.1%	56.6%
Disagree	44.6%	46.2%	41.6%	44.1%	32.8%

their level of agreement that these were “significant barriers” to the widespread adoption of online learning. The choices included those issues identified by our previous studies, as well as questions about the potential demand and acceptance of online instruction.

The question was specifically constructed using the phrase “significant barriers” to begin to differentiate between normal problems of growth for any type of program and those that the academic leaders saw as having far more impact. Survey respondents were presented with a list of possible barriers, and asked to rate

The factor which was cited most often by academic leaders of every institutional size and

BARRIERS TO WIDESPREAD ADOPTION OF ONLINE LEARNING (PERCENT AGREEING)

Students need more discipline to succeed in online courses	63.6%
Greater faculty time and effort required to teach online	31.9%
Lack of acceptance of online instruction by faculty	25.9%
Online education costs more to develop and deliver	23.5%
Lack of acceptance of online degrees by potential employers	13.8%
Lack of student demand for online courses and degrees	4.6%

type was that “Students need more discipline to succeed in online courses.” Nearly two-thirds (63.6%) of all institutions agreed that this represents a significant barrier, with results ranging from a low of 38.7 percent (Doctoral/Research institutions) to a high of 78.8 percent (Private for-profit institutions). No other factor was close, with the next-most cited issue being “Greater faculty time and effort required to teach online” mentioned by less than half as many (31.9%) Chief Academic Officers.

This overall pattern of results among all institutions masks some very pronounced differences among different subgroups of institutions. Time and effort (37.8%) and the lack of acceptance by faculty (31.1%) were nearly as important for Doctoral/Research institutions as the issue of student discipline (38.7%). The only group that had a significant level of concern with student demand was the Specialized institutions, and here only a small minority (12.3%) rated this as a significant barrier. As might be expected, those with the greatest numbers of online students (Doctoral/Research, Masters, and Associates schools) had the fewest worries about student demand.

FACULTY AT MY SCHOOL ACCEPT THE VALUE AND LEGITIMACY OF ONLINE EDUCATION

Agree	27.5%
Neutral	57.8%
Disagree	14.7%

The question of acceptance of an online degree by potential employers was near the bottom of the list of concerns, with the three online leaders (Doctoral/Research, Masters, and Associates schools) again showing very different opinions than those of the Baccalaureate and Specialized institutions. Clearly institutions with the greatest average number of online students have relatively little concern that student demand or employer acceptance will act as a significant barrier to offering online courses and programs.

An economic and logistic issue - that faculty need greater time and effort to teach online - is consistently the second-most cited significant potential barrier. Results from last year's report indicated that institutions with the most experience with online instruction are the most concerned with this issue. Interestingly, most respondents (58%) to last year's survey felt there was no difference in faculty time and effort between online and face-to-face teaching. It appears virtually all of those who agree that it does take more time faculty time and effort to teach online (35% from last year's study) believe that this issue is a critical barrier (31.9% this year).

BARRIERS TO WIDESPREAD ADOPTION OF ONLINE LEARNING (PERCENT AGREEING)

	Doctoral/ Research	Masters	Baccalaureate	Associates	Specialized
Students need more discipline to succeed in online courses	38.4%	57.7%	52.0%	74.0%	55.8%
Greater faculty time and effort required to teach online	37.8%	34.4%	32.8%	27.0%	37.1%
Lack of acceptance of online instruction by faculty	31.1%	33.3%	42.7%	17.5%	29.3%
Online education costs more to develop and deliver	22.3%	22.7%	21.4%	27.7%	16.7%
Lack of acceptance of online degrees by potential employers	10.2%	11.5%	22.5%	7.9%	25.0%
Lack of student demand for online courses and degrees	1.7%	1.5%	5.9%	2.3%	12.3%

The issue of faculty acceptance of online education has been an important issue for academic leaders from the first survey. Results from this year show no significant changes. Only one-in-four academic leaders (27.6%) believe that their faculty “accept the value and legitimacy of online education.” This number has shown little change in acceptance over the course of the research (27.6% in 2003 and 31.0% in 2005). The results for 2006 remain very close to those recorded in 2003 for public, private nonprofit, and private for-profit institutions. One notable exception is a sharp increase (from 5.1% to 17.6%) in the proportion of academic leaders from private for-profit institutions who disagree that faculty accept online education, with a corresponding drop (from 42.1% to 31.5%) in the proportion who agree with this statement. The response rate among for-profit institutions is the lowest in the study, so it is unclear how much of this change may be due to a different pool of respondents. The proportion of academic leaders who believe that their faculty accept the value of online education is nowhere near a majority for any of these institutional categories.

FACULTY AT MY SCHOOL ACCEPT THE VALUE AND LEGITIMACY OF ONLINE EDUCATION

	Public			Private nonprofit			Private for-profit		
	2003	2005	2006	2003	2005	2006	2003	2005	2006
Agree	34.2%	36.4%	32.3%	20.2%	20.6%	20.3%	28.8%	42.1%	31.5%
Neutral	63.2%	58.6%	58.9%	67.6%	62.1%	60.5%	63.3%	52.9%	50.9%
Disagree	2.7%	4.9%	8.8%	12.2%	17.3%	19.2%	7.8%	5.1%	17.6%

PARTNER ORGANIZATIONS



Alfred P. Sloan Foundation

The Alfred P. Sloan Foundation makes grants in science, technology and the quality of American life. It's Anytime, Anyplace Learning program seeks to make high quality learning, education and training available anytime and anywhere for those motivated to seek it. The program has paved the way for nearly 3.2 million learners nationwide to take online courses today. www.sloan.org



The College Board

The College Board is a not-for-profit membership association whose mission is to connect students to college success and opportunity. Founded in 1900, the association is composed of more than 5,000 schools, colleges, universities, and other educational organizations. www.collegeboard.com



Southern Regional Education Board

SREB, a nonprofit and nonpartisan organization based in Atlanta, Georgia, advises state education leaders on ways to improve education. SREB was created in 1948 by Southern governors and legislatures to help leaders in education and government work cooperatively to advance education and improve the social and economic life of the region. www.sreb.org



Midwestern Higher Education Compact

Established in 1991 as an interstate compact agency, the Midwestern Higher Education Compact (MHEC) is charged with promoting interstate cooperation and resource sharing in higher education accomplishing this through three core functions: cost savings programs, student access and policy research. www.mhec.org



American Distance Education Consortium

ADEC is a non-profit distance education consortium composed of approximately 65 state universities and land-grant colleges. The consortium was conceived and developed to promote the creation and provision of high quality, economical distance education programs and services to diverse audiences through the most appropriate information technologies available. www.adec.edu



The Sloan Consortium

The Sloan Consortium is the nation's largest association of institutions and organizations committed to quality online education and administered through Babson College and Franklin W. Olin College of Engineering. www.sloan-c.org



Babson Survey Research Group

The Babson Survey Research Group in the Arthur M. Blank Center for Entrepreneurial Research at Babson College conducts regional, national, and international research projects, including survey design, sampling methodology, data integrity, statistical analyses and reporting.

SURVEY METHODOLOGY

The sample for the analysis is composed of all active, degree-granting institutions of higher education in the United States that are open to the public.

Announced with the publication of last year's report, the Babson Survey Research Group has entered into a data collection partnership with the College Board. The College Board now includes questions for this study of online learning as part of its extensive data collection effort for its Annual Survey of Colleges. Babson Survey Research Group and the College Board coordinate survey instruments and sample outreach; each respondent institution receives identically-worded questions, and those that have responded to one survey are not asked to respond to the same questions on the other.

All sample schools were sent an invitation email and multiple reminders, inviting their participation and assuring them that no individual responses would be released. All survey respondents were promised that they would be notified when the report was released and would receive a free copy.

The sample universe contains 4,491 institutions; a total of 2,472 responses were received, representing a 55.0 percent overall response rate. Of these, 2,251 responded to a sufficient number of questions to be included in this analysis (50.1%). These responses were merged with the data from the previous survey years (994 responses in 2003, 1,170 in 2004, and 1,025 in 2005) for examination of changes over time.

Institutional descriptive data come from the College Board Annual Survey of Colleges and from the Nation Center for Educational Statistics' IPEDS database (<http://nces.ed.gov/ipeds/>). After the data were compiled and linked to the College Board Annual College Survey and to the IPEDS database, the responders and nonresponders were compared to create weights, if necessary, to ensure that the survey results reflected the characteristics of the entire population of schools. The responses are compared for 35 unique categories based on the 2005 Carnegie Classification of Institutions of Higher Education (<http://www.carnegiefoundation.org/classifications/>). These weights provided a small adjustment to the results allowing for inferences to be made about the entire population of active, degree-granting institutions of higher education in the United States.

APPENDIX

How Many Students are Learning Online?

STUDENTS TAKING AT LEAST ONE ONLINE COURSE - FALL 2005

	Under 1500	1500–2999	3000–7499	7500–14999	15000+
Undergraduate	140,719	216,193	529,187	560,307	1,175,307
First Professional	8,265	574	399	1,998	28,114
Graduate	13,467	18,158	55,655	85,085	271,462
Other for-credit	8,109	17,421	7,957	1,981	39,692
Total	170,560	252,346	593,198	649,372	1,514,574

Who Offers Online Courses and Programs?

ONLINE OFFERINGS - FALL 2005

	Public	Private, nonprofit	Private, for-profit
Online program	46.1%	20.8%	23.0%
Courses only	44.5%	25.8%	17.2%
No online	9.4%	53.4%	59.8%

ONLINE OFFERINGS - FALL 2005

	Under 1500	1500–2999	3000–7499	7500–14999	15000+
Online program	17.0%	28.0%	44.4%	52.7%	64.6%
Courses only	23.2%	39.1%	40.2%	37.5%	31.6%
No online	59.8%	32.9%	15.4%	9.8%	3.8%

In for the Long Term?

ONLINE EDUCATION IS CRITICAL TO THE LONG-TERM STRATEGY OF MY INSTITUTION (PERCENT AGREEING)

	Public	Private, nonprofit	Private, for-profit
2006	74.9%	46.2%	48.7%
2005	73.9%	41.0%	52.9%
2004	65.9%	36.9%	65.1%
2003	66.8%	34.9%	31.2%

ONLINE EDUCATION IS CRITICAL TO THE LONG-TERM STRATEGY OF MY INSTITUTION (PERCENT AGREEING)

	Under 1500	1500–2999	3000–7499	7500–14999	15000+
2006	43.7%	60.3%	71.1%	75.4%	79.1%
2005	47.3%	61.2%	66.9%	71.3%	67.5%
2004	41.7%	52.1%	62.0%	70.8%	67.2%
2003	34.2%	47.5%	65.3%	61.7%	61.2%

Are these New Students?

ONLINE EDUCATION REACHES STUDENTS NOT SERVED BY FACE-TO-FACE PROGRAMS

	Public	Private, nonprofit	Private, for-profit
Agree	79.4%	67.9%	68.1%
Neutral	16.8%	29.4%	23.4%
Disagree	3.7%	2.7%	8.5%

ONLINE EDUCATION REACHES STUDENTS NOT SERVED BY FACE-TO-FACE PROGRAMS

	Under 1500	1500–2999	3000–7499	7500–14999	15000+
Agree	68.0%	68.6%	79.5%	81.8%	78.9%
Neutral	25.1%	30.9%	17.4%	15.7%	16.7%
Disagree	6.9%	0.5%	3.1%	2.5%	4.4%

Learning Outcomes

LEARNING OUTCOMES IN ONLINE EDUCATION COMPARED TO FACE-TO-FACE

	Doctoral/ Research			Masters			Baccalaureate		
	2003	2004	2006	2003	2004	2006	2003	2004	2006
Superior	1.2%	1.2%	3.2%	0.0%	2.1%	4.2%	0.7%	0.0%	2.9%
Somewhat superior	17.5%	11.4%	25.1%	15.5%	9.3%	16.0%	6.9%	6.8%	11.6%
Same	49.0%	60.0%	47.0%	44.2%	51.9%	58.3%	28.9%	28.4%	28.5%
Somewhat inferior	24.7%	23.1%	16.7%	31.9%	30.7%	21.2%	42.3%	34.3%	38.0%
Inferior	7.6%	4.3%	8.0%	8.4%	6.0%	0.3%	21.2%	30.5%	19.1%

	Associates			Specialized		
	2003	2004	2006	2003	2004	2006
Superior	1.0%	0.9%	1.5%	0.0%	0.9%	0.0%
Somewhat superior	11.7%	11.1%	14.3%	9.2%	9.0%	15.2%
Same	54.1%	63.2%	48.7%	34.9%	40.0%	33.2%
Somewhat inferior	26.8%	22.9%	31.4%	40.2%	36.3%	36.3%
Inferior	6.4%	1.9%	4.2%	15.8%	13.7%	15.2%

LEARNING OUTCOMES IN ONLINE EDUCATION COMPARED TO FACE-TO-FACE

	Under 1500			1500–2999			3000–7499		
	2003	2004	2006	2003	2004	2006	2003	2004	2006
Superior	0.3%	0.4%	1.8%	0.0%	1.2%	1.5%	2.0%	0.7%	1.9%
Somewhat superior	5.5%	8.5%	13.4%	12.6%	6.5%	7.5%	15.7%	10.4%	19.7%
Same	36.2%	36.2%	36.3%	41.0%	50.7%	45.8%	55.5%	59.5%	55.8%
Somewhat inferior	43.0%	37.4%	36.7%	33.9%	28.3%	34.7%	20.1%	24.7%	20.4%
Inferior	15.0%	17.4%	11.8%	12.6%	13.3%	10.5%	6.7%	4.6%	2.2%

	7500–14999			15000+		
	2003	2004	2006	2003	2004	2006
Superior	0.0%	1.4%	2.0%	1.2%	2.4%	2.3%
Somewhat superior	17.2%	14.0%	18.0%	16.3%	16.9%	26.5%
Same	59.0%	61.9%	54.2%	61.2%	59.4%	50.3%
Somewhat inferior	19.7%	20.4%	24.4%	17.4%	18.9%	18.6%
Inferior	4.1%	2.2%	1.5%	3.9%	2.4%	2.3%

LEARNING OUTCOMES IN ONLINE EDUCATION COMPARED TO FACE-TO-FACE

	Public			Private, nonprofit			Private, for-profit		
	2003	2004	2006	2003	2004	2006	2003	2004	2006
Superior	0.5%	0.7%	1.8%	0.3%	1.3%	2.8%	2.0%	0.0%	0.0%
Somewhat superior	16.9%	12.7%	18.1%	6.7%	7.0%	13.7%	10.0%	4.3%	12.0%
Same	57.6%	62.0%	53.7%	32.8%	35.5%	37.1%	39.6%	78.3%	42.2%
Somewhat inferior	21.0%	22.0%	24.1%	43.8%	36.8%	31.1%	32.6%	13.0%	40.7%
Inferior	3.9%	2.5%	2.3%	16.5%	19.4%	15.2%	15.9%	4.3%	5.2%

Barriers to Widespread Adoption of Online Learning

THERE ARE NO SIGNIFICANT BARRIERS TO WIDESPREAD ADOPTION OF ONLINE LEARNING

	Public	Private, nonprofit	Private, for-profit
Agree	6.9%	3.5%	2.4%
Neutral	50.5%	48.7%	61.2%
Disagree	42.7%	47.7%	36.4%

THERE ARE NO SIGNIFICANT BARRIERS TO WIDESPREAD ADOPTION OF ONLINE LEARNING

	Doctoral/ Research	Masters	Baccalaureate	Associates	Specialized
Agree	6.8%	8.3%	3.5%	4.2%	4.1%
Neutral	48.6%	42.2%	47.3%	58.0%	51.2%
Disagree	44.6%	49.5%	49.2%	37.8%	44.7%

BARRIERS TO WIDESPREAD ADOPTION OF ONLINE LEARNING (PERCENT AGREEING)

	Public	Private, nonprofit	Private, for-profit
Students need more discipline to succeed in online courses	66.8%	52.4%	78.3%
Greater faculty time and effort required to teach online	34.6%	36.5%	18.3%
Lack of acceptance of online instruction by faculty	22.6%	35.7%	14.5%
Online education costs more to develop and deliver	25.1%	18.4%	29.8%
Lack of acceptance of online degrees by potential employers	8.9%	19.0%	14.1%
Lack of student demand for online courses and degrees	1.9%	6.0%	7.2%

BARRIERS TO WIDESPREAD ADOPTION OF ONLINE LEARNING (PERCENT AGREEING)

	Under 1500	1500–2999	3000–7499	7500–14999	15000+
Students need more discipline to succeed in online courses	66.3%	70.1%	60.8%	58.1%	47.8%
Greater faculty time and effort required to teach online	34.1%	29.2%	31.0%	31.1%	29.5%
Lack of acceptance of online instruction by faculty	24.8%	32.4%	25.7%	22.8%	21.7%
Online education costs more to develop and deliver	22.7%	28.5%	21.4%	29.4%	15.7%
Lack of acceptance of online degrees by potential employers	16.6%	15.1%	11.3%	7.9%	9.3%
Lack of student demand for online courses and degrees	5.5%	5.7%	4.2%	2.0%	1.2%

FACULTY ACCEPT THE VALUE AND LEGITIMACY OF ONLINE EDUCATION

	Doctoral/ Research			Masters			Baccalaureate		
	2003	2005	2006	2003	2005	2006	2003	2005	2006
Agree	23.6%	18.2%	19.9%	23.9%	24.2%	20.0%	17.6%	13.5%	17.9%
Neutral	73.3%	71.4%	69.3%	71.2%	67.3%	70.1%	61.7%	58.7%	57.0%
Disagree	3.2%	10.4%	10.8%	4.9%	8.5%	9.9%	20.8%	27.8%	25.2%

	Associates			Specialized		
	2003	2005	2006	2003	2005	2006
Agree	35.4%	39.5%	33.8%	19.6%	28.0%	22.8%
Neutral	59.5%	57.4%	53.4%	73.7%	56.4%	60.5%
Disagree	5.2%	3.1%	12.8%	6.7%	15.6%	16.7%

FACULTY ACCEPT THE VALUE AND LEGITIMACY OF ONLINE EDUCATION

	Under 1500			1500–2999			3000–7499		
	2003	2005	2006	2003	2005	2006	2003	2005	2006
Agree	23.8%	30.0%	28.9%	25.7%	26.8%	20.9%	33.2%	37.3%	30.3%
Neutral	66.5%	58.0%	51.1%	65.4%	61.2%	64.8%	61.2%	55.9%	61.7%
Disagree	9.6%	12.1%	20.0%	8.9%	12.0%	14.3%	5.6%	6.8%	8.0%

	7500–14999			15000+		
	2003	2005	2006	2003	2005	2006
Agree	29.6%	23.8%	26.2%	34.1%	32.8%	30.3%
Neutral	66.8%	74.1%	62.0%	64.7%	55.7%	62.6%
Disagree	3.7%	2.1%	11.9%	1.2%	11.4%	7.1%

Making the Grade: *Online Education in the United States, 2006* represents the fourth annual report on the state of online education in U.S. Higher Education. Supported by the Alfred P. Sloan Foundation and based on responses from over 2,200 colleges and universities, this year's study, like those for previous years', is aimed at answering some of the fundamental questions about the nature and extent of online education:

- Has the growth in online enrollments begun to plateau?
- Who offers online courses and programs?
- Is online education becoming part of long-term strategy for most schools?
- How do Chief Academic Officers rate the quality of online courses?
- What barriers do academic leaders see to widespread adoption of online learning?

The survey analysis is based on a comprehensive nationwide sample of active, degree-granting institutions of higher education in the United States that are open to the Public.



Copyright ©2006 by Sloan-C™
All rights reserved. Published 2006



US \$29.95