Trends in Higher Education and the Labor Market: An Environmental Scan for Strategic Planning

In this report, The Hanover Research Council provides information on trends in higher education and the labor market. Each section of the report is dedicated to a separate trend: increasing use of technology; rising enrollments; rising enrollments in online courses; globalization of higher education; growing commitment to sustainability; greater interest in campus security; and the decline of full-time and tenured faculty.
Overview

In this report, The Hanover Research Council discusses and provides data on the most salient trends in higher education and the future labor market. The report is intended to serve as an environmental scan for one Member's strategic planning process. Indeed, the presentation of higher education and employment trends addresses the “opportunities” and “threats” components of a SWOT analysis.

The compilation of the report took place in several stages. First, Hanover consulted several higher education sources to identify possible current trends, especially those that are expected to continue into the near future. In particular, we relied on the following publications:

- “Trends in Higher Education, August 2008,”² published by the Society for College and University Planning, a community of higher education administrators who are responsible for strategic planning on their campuses; and
- News and features articles from Chronicle of Higher Education, the leading newspaper on the academic world in the U.S.

Then, we browsed other publications with an interest in higher education, such as Community College Times and Forbes Magazine for additional discussion of key trends. This process led us to uncover trends like the rising enrollment in higher education, including in online courses. Next, we went to the most authoritative sources to find data on each trend. For example, to demonstrate that more students are in fact attending colleges and universities in the U.S., we identified enrollment projections on the website of the National Center for Education Statistics, the statistical arm of the Department of Education. To support the contention that increasing numbers of students are indeed taking courses online, we searched for data in the publications of The Sloan Consortium, a non-profit dedicated to research on online education.

This process led us to uncover the following seven major trends in higher education:

- Increasing use of technology
- Rising enrollments
- Rising enrollment in online education

Globalization
- Going green
- Increasing interest in campus security
- Decline in full-time, tenured/tenure-track faculty

For each trend, we provide a brief discussion and several examples of colleges and universities' experiences with the trend, paying particular attention to community colleges where possible. Then, we provide the major conclusions from the sources we used to study the trend. Finally, we present data and analysis from these sources that support our designation of the issue as a "trend" in higher education.

Additionally, we referred to the U.S. Bureau of Labor Statistics (BLS) and Michigan’s Department of Energy, Labor & Economic Growth for trends in the labor market at the national, state-wide, and local levels. We located the most recent labor projections data, and interpreted it in this report.

We conclude with a summary of major findings in each section, also bolded throughout the entirety of this report.
Trend 1: The Increasing Use of Technology

One of the most significant trends in higher education is undoubtedly the increasing adoption of cutting-edge technology. Indeed, nine of the twelve trends discussed in Cisco’s “21st Century Trends for Higher Education” pertain to the use of technology by students, faculty, and college administrators; furthermore, an entire section in the Society for College and University Planning’s “Trends in Higher Education” is devoted to the technology in colleges and universities. Several surveys conducted by organizations like EDUCAUSE and the Community College Leadership Program at the University of Texas in Austin indicate that students are increasingly relying on the internet, Web 2.0 technology like social networking sites, and mobile technology like iPhones.

In response to student usage, many faculty and college administrators are beginning to harness technology for both academic and marketing purposes. An article appearing in the Chronicle of Higher Education in November 2009, for example, features a number of professors at Purdue University who use software called Hotseat that allows students to key in questions during lectures using applications like Twitter or Facebook. Other faculty report using Twitter to send brief notes to students and keep in touch with colleagues. Another Chronicle article, appearing in April 2008, discusses the trend of college alumni associations creating social networking sites akin to Facebook to maintain ties with alumni and keep tabs on their whereabouts for fundraising.

This section draws on a number of sources, including those discussed above. Specifically, we use data from EDUCAUSE’s annual “ECAR Study of Undergraduate Students and Information Technology”; survey results from the Community College Survey of Student Engagement (CCSSE); and insight from the Chronicle of Higher Education’s interviews with higher education consultants and technology experts.

The ECAR and CCSSE surveys indicate that:

- Undergraduates are increasingly adopting and using the latest technology, specifically laptops and mobile phones.
- More undergraduates are spending time online and on the computer for both academic and recreational purposes.
- Social networking online and text messaging from handheld mobile devices are the latest fads among students.
- The gap between the traditional-age students and older students with regard to technology use is narrowing.

---

1 Jeffrey R. Young, “Teaching with Twitter not for the Faint of Heart: Students are Emboldened, but They Can Also Hijack Discussions,” The Chronicle of Higher Education, Technology, November 22, 2009.
The Chronicle's interviews with technology experts and commentary reveal the following possible trends in higher education, including at the community college level:

- Expansion of computer gaming, social networking, and high-impact technology like clickers for academic purposes; and the
- Expansion of cloud computing.

Students' Ownership and Use of Technology

In this section, we derive data on students' ownership and use of technology from EDUCAUSE and the Community College Survey of Student Engagement (CCSSE). EDUCAUSE is a nonprofit organization that promotes the use of IT in higher education. Since 2004, its Center for Applied Research (ECAR) has conducted an annual survey to gauge undergraduates' use of technology. 30,616 students at 115 higher education institutions, including 12 community colleges, participated in the latest ECAR survey, administered in spring 2009. By contrast, the CCSSE, conducted by the Community College Project at the University of Texas in Austin, assesses the institutional practices and student behaviors that are correlated with student learning and retention. Over 400,000 students at 663 community colleges in 48 states participated in the 2009 administration of the CCSSE. Viewing ECAR's survey data from the last several years, with special attention to 2008 and 2009, and focusing on the CCSSE's data for 2009, will provide insight into current trends and the future directions of students' use of technology.

The graphs and data on the following pages point to the most relevant trends concerning student technology use.

Among the first questions ECAR asks students is the type of computer they own and its age. Figure 1 on the next page shows that while a vast majority of undergraduate students in the U.S. own computers, the proportion has nonetheless increased by about 5.4% between 2004 and 2009. In the latest survey, nearly all students reported owning a computer. Figure 1 also shows that ownership of the type of computer — a desktop or a laptop — has reversed in the past five years. More students owned a desktop than a laptop by about a ratio of 4:3 in 2004. By 2009 the ratio was 1:2, with about half as many students owning desktops as laptops. Despite the current recession, ECAR found that "students are entering school with newer equipment." In the 2009 survey, nearly eight in ten freshmen reported owning a laptop less than a year old and somewhat less than half of the respondents claimed their newest computer, whether a desktop or a laptop, is one year-old or less.

---

8 Ibid.
As Figure 2 suggests, the average number of hours students spend online has increased by about 9% annually over the past few years. Nowadays, students spend over 21 hours online each week. The CCSSE confirms the rising use of the internet among community colleges students over the past several years. Its 2009 report states that “over the last five years… respondents have reported steady increases in use of technology — computers, the Internet, and e-mail.”

---

With a large majority of students owning computers and spending more of their time online, ECAR next determined what students do with IT. Figure 3a illustrates that more students are using computer applications and going online for academic purposes. For example, the proportion of students who reported using the internet to access their college’s/university’s library websites and course management systems like Blackboard has increased by about 13% during the last five years. More than nine in ten students now utilize the computer to access their college or university’s libraries and create presentations in applications like PowerPoint. The shares of students who engage in other academic activities on the computer, such as creating spreadsheets in Excel and graphics in Adobe Photoshop, have also steadily increased since 2004.10

Figure 3a: Students’ Computer and Internet Activities for Academic Purposes

But, as ECAR discovered, the increased time spent on the internet by students has not been solely to the benefit of their academic experiences. Figure 3b shows increases in the proportion of students who use the internet for entertainment. In particular, the share of students who go online to participate in social networking on websites like Facebook and MySpace has increased by about 28% over the past four years. The numbers of students who download music, audios, and videos, who blog, and who send text messages has also increased. According to ECAR’s latest survey, nearly nine in ten students engage in social networking and send text messages. Interestingly, the percentage of students who send instant messages has declined.

somewhat since 2007. ECAR believes that this finding may be attributed to the rise in text messaging, which can be done more conveniently over a smartphone or other handheld device.

**Figure 3b: Students’ Internet and Computer Activities for Entertainment Purposes**

![Chart showing trends in social networking, instant messaging, text messaging, downloading music or videos, and blogging from 2006 to 2009.](chart)

Source: ECAR

As seen above, increasing numbers of students are accessing social networking sites (SNS). Because of this emerging trend, ECAR focused on social networking as a special topic in its 2008 survey, seeking to understand who uses SNS and their motivations for doing so.\(^\text{11}\)

Figure 4 illustrates changes in the proportions of students who use social networking websites by age. A large majority of traditional-age undergraduates – that is, students aged from 18-24 years-old – have been social networking since 2006. Presently, more than nine in ten students whose ages fall within this range go online to social network. In addition, the proportion of nontraditional-age students – that is, undergraduates over the age of 25 – who social network online has increased dramatically in the past few years. For example, in 2006, about one in ten students over 40 years-old reported having used a social networking website. By 2009, the ratio had increased to one in two students over the age of 40. Figure 4 clearly shows that the gap between younger and older students with regard to social networking has narrowed. In 2006, there was about an 80% gap in the proportions of 18-19 years-

old and students over the age of 40 who social networked. Three years later, the gap narrowed to approximately 50%.

The CCSSE confirms that the technology gap between young and older students is closing among community college students. In its 2009 Making Connections: Dimensions of Student Engagement report, CCSSE found that

In 2004, 54% of nontraditional-age students, versus 60% of traditional-age students, used the Internet or instant messaging to work on an assignment. Today, that gap has closed to one percentage point: 65% for nontraditional-age students and 66% for traditional-age students. Similarly, the age gaps for using e-mail to communicate with an instructor and using computers in academic work have narrowed.\(^\text{12}\)

Figure 4: Undergraduates Who Have Used Social Networking Sites by Age

![Graph showing the percentage of undergraduates who have used social networking sites by age from 2006 to 2009.]

While ECAR’s 2008 survey focused on SNSs, the 2009 survey featured a special section on students’ use of mobile technology, another emerging trend.\(^\text{14}\) Figure 5a shows changes in students’ ownership of mobile technology. The proportion of students who own smartphones or devices capable of accessing the internet has skyrocketed in the past five years, especially between 2007 and 2009. Indeed, the

---
\(^{14}\) Ibid, Pg. 85.
share of students who own these kinds of phone/devices appears to have multiplied 50 times over since 2005.

**Figure 5a: Undergraduate’s Ownership of Mobile Technology**

![Graph showing ownership of mobile technology from 2005 to 2009.](image)

Source: ECAR

Figure 5b shows that almost half of students who own internet capable handheld devices anticipate increasing the amount of time they spend using them in the next three years. About a quarter expect to “greatly increase” their use and somewhat less than a quarter expect their usage to “stay the same.”
Figure 5b: Undergraduates’ Anticipated Increase/Decrease in Use of the Internet from a Handheld Device in the Next Three Years

Greatly increase 25.1%
Increase 48.6%
Stay the same 22.6%
Greatly decrease 2.1%
Decrease 1.6%

Source: ECAR
*Note this only includes respondents own an internet capable handheld device and access the internet from it

Figure 5c suggests the extent to which undergraduates think they will conduct many of the activities they do on a computer on a handheld internet device in the next three years. About 45% of students agreed or strongly agreed that they would expect to transition to their activities to a smartphone or a handheld device like the iPod touch, while about 28% disagreed or strongly disagreed.

Figure 5c: Undergraduates’ Degree of Agreement with the Statement “In the Next Three Years, I Expect to Do Many Things on a Cell Phone or Handheld Internet Device that I Currently Do on a Desktop or Laptop.”

Neutral 24%
Agree 29%
Disagree 18%
Strongly agree 16%
Strongly disagree 10%
Don’t know 3%

Source: ECAR

16 Ibid. 100.
Possible Trends in Higher Education Concerning IT

Beyond the trends in students’ use of technology indicated by the ECAR and the CCSSE, a variety of articles published over the last two years in the Chronicle of Higher Education provide predictions about the future direction of technology use in higher education. For example, an April 2008 article entitled “IT on Campuses: What the Future Holds,” offers a summary of comments made by experts at the Chronicle’s Technology Forum, held in February 2008. Mark David Milliron, president of the consulting group Catalyze Learning International, spoke about conversations he has recently engaged in with not only colleges, but also K-12 school districts and legislative bodies. He noted:

I think some of the big conversations that people are really pushing, which is really encouraging to see, is that they are beginning to talk about ending the "segregation." They have segregated their facilities conversations over here and their technology conversations over there, and now they are really beginning to think about how they pull those things together.

And as they do that, they are really wrestling with, how do we more aggressively use blending across our different programs and services? How do we use more mobile technology, in particular, not just wireless, but all the devices that we have? They are getting into conversations about gaming, about social networking, about real, high-impact presentation technologies, even holographics, and then really looking at the analytic side of it, and the whole time thinking about how they maintain the human touch.17

In another article, “IT Trends for Community Colleges,” the Chronicle discusses Milliron’s comments and predictions about IT use that are more specific to two-year colleges. At the technology forum, Milliron spoke about trends that he believes will becoming increasingly apparent at community colleges. These are:18

- More use of computer and video games in the curriculum and on campuses. Milliron expects more community colleges will consider "serious" games, already widely used by the military, as a tool to better engage students and encourage "immersion" experiences. Such games have also been used to encourage connections among students outside the classroom.

- Expansion of social-networking technology for educational reasons. Students will be encouraged to move beyond Facebook and MySpace, and use similar networking technology to connect around academic and other issues.

---

The use of new, high-impact technologies in the classroom. Examples might include requiring students to use cell phones or other hand-held devices to provide instant feedback during an assignment, or the use of holographic projections to beam lifelike images (say, of a cell or a human brain) into a science laboratory.

Finally, in an October 2008 article, an IT writer at the Chronicle discusses “Three Ways That Web-Based Computing Will Change Colleges – and Challenge Them.” The feature offers the author’s insight on future trends concerning cloud-computing, a term that refers to programs run over the internet rather than on an individual’s computer. According to the Chronicle, these are promises of cloud-computing in higher education:

- **Sharing from everywhere** – Students working on group projects can use tools like Google Docs to edit shared documents online from anywhere they have an internet connection. Students can ask parents and faraway friends to edit their term papers remotely without sending clunky attachments. Professors can upload and access their lecture notes and scholarly papers from any location using Microsoft Office Live or another networked service.

- **Supercharging research** – Colleges can set up systems that allow professors to tap into supercomputers or they can string together normal computers working in tandem over the internet to provide the firepower of a supercomputer.

- **Reshaping IT departments** – Colleges can band together to build joint data centers that let students and faculty at different institutions use their own computers to access specialized software, like 3D modeling programs.

---

Trend 2: Rising Enrollments

Community colleges continue to see a trend that they [would] rather not: Many states are trimming funding to colleges in budget-cutting maneuvers while enrollments keep going up, often in double digits. As the fall semester has started over the past two weeks, community colleges across the country have released data on student enrollments and nearly all of them report increases over last fall.20

The excerpt above is taken from an article published in Community College Times in September 2009. The article goes on to give numerous examples of public, two-year colleges around the U.S. that have experienced sharp rises in enrollment from fall 2008 to fall 2009. Oklahoma Community College, for example, experienced an 18% rise in enrollment. Tidewater Community College in Virginia saw a 25% increase an enrollment. Ivy Tech College in Indiana grew by 28% in terms of student attendance. Community colleges in Missouri had 13% more students on opening day than the year before, while those in Maryland enrolled 11% more.21

This section provides details on the trend of increasing enrollments at higher education institutions in the U.S. In addition to articles in newspapers like Community College Times, many other sources point to the rising enrollment of undergraduates, a trend that is expected to continue for the next several years. In particular, this section relies on the latest edition of Projections of Education Statistics, published by the National Center for Education Statistics, and the report of a survey conducted by the League for Innovation in the Community College and the Campus Computing Project entitled “Community Colleges and the Economic Downturn.”

Between 2010 and 2015, the NCES study anticipates the following enrollment trends for higher education:

- Rising total headcount and first-time freshmen enrollments, particularly at public-four year colleges;
- A more diverse student body in terms of age and race/ethnicity;
- An increase in the ratio of female to male students; and
- An increase in the ratio of full-time to part-time students.

The League’s survey found that between winter 2008 and winter 2009, community colleges experienced:

- Rising headcount enrollment;

21 Ibid.
- Rising enrollment in several key program areas, particularly remedial education and vocational courses; and
- Rising enrollment in several occupational areas, particularly healthcare programs.

In its annual *Projections of Education Statistics*, the NCES uses the U.S. Census Bureau’s population projections to estimate enrollment in higher education institutions. The latest study, published in September 2009, finds that “total enrollment in degree-granting institutions is expected to increase between fall 2007, the last year of actual data, and fall 2018.”

Illustrated below and on the following pages are the NCES’s major projections concerning enrollment at postsecondary institutions.

Figure 1a below shows actual enrollment for 2005-2007 and the NCES’s range of projected enrollment for 2008-2015. As the graph indicates, in the middle alternative projection, total enrollment in higher education is supposed to grow by about 810,000 students between 2010 and 2015 — that is, about 4.2%. The low alternative projection estimates a growth rate of 4.4% while the high alternative projection estimates that enrollment will grow about 6% in the next five years.

**Figure 1a: Total Enrollment (in Millions)**

```
Source: NCES
```

---

According to the NCES's data, a part of the increase in total enrollment will be the result of more students attending college for the first time. Figure 1b shows that in the middle alternative projection, the NCES anticipates 120,000 more students entering college or the first time between 2010 and 2015, a growth rate of about 4.2%. In the low alternative projection, this constituency is supposed to grow 3.7% while in the high alternative projection the NCES estimates that it will grow 4.5%.

**Figure 1b: Enrollment of First-Time Freshmen (in Millions)**

The NCES does not anticipate the gains in enrollment to be spread evenly among different kinds of higher education institutions. More students are projected to attend public, four-year colleges and universities than other types of institutions. Figure 1c shows that the NCES expects enrollment at four-year schools to grow by 340,000 students between 2010 and 2015, a rate of about 5.4%. At 6.2%, private, four-year colleges are projected to grow the fastest in terms of enrollment over the next five years. Last, the NCES projects that enrollment at private, two-year colleges will grow about 4.8%; public, two-year college enrollment is projected to grow 4.3%.

---

24 "Table 10," Ibid.
With regard to the age of college students, the NCES predicts that students between the ages of 25-34 years old will grow the fastest in the upcoming years. As Figure 1c shows, the number of students whose age falls within this range is expected to grow by 479,000 between 2010 and 2015, about 11.3%. Traditional-age students – that is, undergraduates between the ages of 18 and 24 – are projected to grow 2.8% and older undergraduates – that is, students over 35 years of age – are projected to grow by 5.5%. These projections suggest that the student body in the U.S. is expected to become more nontraditional in age in the upcoming years.
The NCES projections anticipate that the trend of more women than men enrolling in college will continue in the near future. As Figure 1d shows, the number of female undergraduates in the U.S. is projected to grow by 805,000 between 2010 and 2015, about a 7.4% change. The proportion of male undergraduates, on the other hand, is expected to grow only 2%.

**Figure 1d: Enrollment by Gender (in Millions)**

Interestingly, although the NCES predicts that the student body will become even more nontraditional in age, it anticipates that students' attendance status will lean toward full-time rather than part-time. As Figure 1e shows, the number of full-time students is projected to grow by about 656,000 students between 2010 and 2015, a change of about 5.5% for the five-year period. Part-time enrollment is projected to experience approximately 4.4% growth.

---

27 "Table 11," Ibid.
In addition to becoming more nontraditional in age, the NCES study anticipates that the student body at U.S. institutions of higher education will become more diverse in terms of race/ethnicity. As Figure 1f shows, the number of Hispanic students is projected to grow by about 387,000 and the number of black students is projected to grow by about 331,000 between 2010 and 2015. At 17.1% and 13.7%, Hispanics and Asians/Pacific Islanders, respectively, have the highest growth rates of the six race/ethnicity categories tracked by the NCES. The NCES projects the proportion of black students will grow by 13.2% while the number of white students will grow by only 0.2%. Finally, the number of American Indian and Alaskan natives attending college is anticipated to grow by 8.2% in the next five years.

---

**Figure 1e: Enrollment by Attendance Status (in Millions)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Full-time</th>
<th>Part-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005 (Actual)</td>
<td>10.797</td>
<td>6.690</td>
</tr>
<tr>
<td>2010 (Projected)</td>
<td>11.899</td>
<td>7.227</td>
</tr>
<tr>
<td>2015 (Projected)</td>
<td>12.555</td>
<td>7.542</td>
</tr>
</tbody>
</table>

Source: NCES

28 "Table 11," Ibid.
Beyond the data provided in the *Projections* report, a recent survey by the League for Innovation in Community Colleges and the Campus Computing Project also reveals "dramatic gains in community college enrollments over the past 12 months." In February and March 2009, the League surveyed 120 community college administrators and district chancellors about changes in college enrollment, campus employment, and budgets in light of the economic recession. Since these are among the latest statistics on community colleges, they may be taken as indications of emerging enrollment trends.

Figure 2a on the next page shows the enrollment trends uncovered by the League's survey. As the graph indicates, total headcount enrollment increased at about eight in ten community colleges between winter 2008 and winter 2009 at community colleges. In addition to general enrollment growth, large numbers of administrators and chancellors reported gains across key categories of their student populations: 85.7% of colleges experienced an increase in full-time students; 82.3% saw an increase in part-time students; 67.9% of colleges reported enrolling more transfer oriented students; 61.4% saw an increase in reverse transfer students – that is, students who transferred from four-year colleges; 72% of colleges enrolled more students in certificate programs; and 77% enrolled larger numbers of students in workforce development programs.

---

29 "Table 22," Ibid.
In terms of the types of programs offered, the League’s survey found that more community colleges have enrolled students in remedial education and vocational training courses than other courses over the past year. Indeed, as Figure 2b shows, about eight in ten administrators and chancellors at community colleges reported increases in student enrollment in these program areas. More than three-quarters of colleges saw rising enrollments in core academic/transfer courses. Finally, about 60% of public, two-year colleges reported increases in career enhancement/refresher courses and student success/freshmen year programs.
Another component of the League’s survey sought to discover the occupational areas that have experienced the most growth in terms of enrollment over the past year. Figure 2c shows over three-quarters of community colleges reported increasing enrollments in their healthcare programs. About 67% of colleges reported higher enrollment in IT programs and about 58.4% saw greater enrollment in business and accounting programs.
Trend 3: Rising Enrollments in Distance Courses and Programs

A number of articles appearing recently in the *Chronicle of Higher Education* point to the trend of increasing numbers of students taking courses online. For example, in January 2009, one of the *Chronicle's* IT writers surmised that the "recession may drive more adult students to take online classes."\(^\text{31}\) In a May 2009 op-ed, a professor defended what she considered to be "the excellent inevitability of online courses."\(^\text{32}\) And, a July 2009 feature found that some commuter-serving universities and colleges are "parlay[ing] stronger local brands, cheaper tuition, and blended programs that shift a lot of class time online into an appealing package for area adults."\(^\text{33}\)

To illustrate the trend of higher education institutions offering — and students opting to take — online courses, this section relies on data from The Sloan Consortium’s report on online education called “Staying the Course: Online Education in the United States, 2008”; findings from the “Community College and the Economic Downturn” survey, conducted jointly by the League for Innovation in Community College and the Campus Computing Project; and data from the NCES on enrollment at the University of Phoenix – Online Campus. Although data from these sources is based on the past several years, it is among the latest available research and suggests that the trend of increasing enrollment in distance education will continue.

A 2008 Sloan Consortium report on online education found that:\(^\text{34}\)

- Over 3.9 million students were taking at least one online course during the fall 2007 term; a 12 percent increase over the number reported the previous year.
- The 12.9 percent growth rate for online enrollments far exceeds the 1.2 percent growth of the overall higher education student population.
- Over twenty percent of all U.S. higher education students were taking at least one online course in the fall of 2007.
- While many institutions have had online offerings for a number of years, institutions new to online continue to be added; fully one in five institutions with online courses introduced their first offerings this past year.


The League’s survey found that 93 percent of participating community colleges had experienced growth in online enrollments between winter 2008 and winter 2009.\textsuperscript{35} Finally, statistics on enrollment at the University of Phoenix show astronomical growth for the online campus of the private, for-profit institution.

The Sloan Consortium, an organization dedicated to integrating online education in the mainstream of higher education, publishes an annual report on the state of online education in the U.S. The latest report, published in November 2008, found that “online enrollments have continued to grow at rates far in excess of the total higher education student population, with the most recent data demonstrating no signs of slowing.”\textsuperscript{36} The graphs below and on the following pages illustrate this trend.

Figure 1a below shows that about 3.9 million students in the U.S. took at least one class online in 2007, about a 13% increase over the previous year. In terms of enrollment, online education grew by about 20% annually between 2002, when the Sloan Consortium began tracking the trend, and 2007.\textsuperscript{37}

**Figure 1a: Students Taking at Least One Course Online (in Millions)**

![Graph showing online enrollment growth](image)

Source: The Sloan Consortium

Using the NCES’s statistics for total enrollment, the Sloan report also found online enrollment as a proportion of total enrollment for 2002-2007. As Figure 1b shows, in 2007, enrollment in online courses and programs accounted for approximately 21.9% of total enrollment in higher education institutions in the U.S. This statistic is


\textsuperscript{37} Ibid., 5.
about an 11.7% increase from the previous year. Between 2002 and 2007, online enrollment as a proportion of total enrollment grew about 18.3% annually.38

**Figure 1b: Online Enrollment as a Percent of Total Enrollment**

![Graph showing online enrollment as a percent of total enrollment from 2002 to 2007.](image)

Source: The Sloan Consortium

The League survey, as discussed earlier, also reveals increases in online enrollment over the past academic year at community colleges. As Figure 2a shows, nine in ten community college administrators and chancellors reported an increase in enrollment in online courses between winter 2008 and winter 2009. 55% of colleges experienced gains in enrollment in online degree programs and 50% saw gains in enrollment in online certificate programs.39

---

38 Ibid.
A final way that the trend of increasing online enrollment may be detected is by viewing changes in enrollment at a specific online college. The online campus of the University of Phoenix, for example, experienced exponential growth between 2000 and 2007.\textsuperscript{41} As Figure 3 on the next page shows, the University of Phoenix Online enrolled about 224,900 students in fall 2007, which, according to the NCES, is the highest university enrollment in the U.S. This was a nearly 36% increase over the institution's fall 2006 enrollment. Between 2000, when the University of Phoenix began offering programs online, and 2007, the university's online enrollment grew at an average rate of 50% annually.

\textsuperscript{40} Ibid.

Figure 3: Enrollment at the University of Phoenix Online Campus, 2000-2007 (in Thousands)

Source: NCES
Trend 4: Globalization

The literature on higher education indicates that U.S. colleges and universities are actively recruiting foreign students and building branch campuses overseas. For example, the title of an article appearing in the *Chronicle of Higher Education* in May 2009 finds that “Internationally, the Business of Education is Booming.”42 Other titles from the past two years discuss the trend of “Foreign Students Pouring Back into the U.S.”43 and “American Colleges Going to Iraq to Recruit Students.”44 Even community colleges have begun recruiting foreign students as a way to enhance revenues and foster diversity on their campuses. An article published in October 2008 observes that

Despite the obstacles, two-year institutions across the United States are pursuing a variety of strategies to give their students an international edge. Some go for greater numbers of international students, while others are after stronger ties with immigrant groups or multinational firms in their region to provide students with globally relevant volunteer experiences or internships. Still others have developed certificate programs for students who complete several courses with an international perspective.45

The article goes on to discuss the internationalization efforts of several colleges. Bunker Hill Community College in Massachusetts, for example, sends representatives to recruitment fairs overseas and relies on its international students to spread the word to their compatriots. Daytona State College in Florida has received grants to create a community college in the Dominican Republic and adapt a curriculum for the Bahamas. Other community colleges, including several in Los Angeles, have built residence halls to accommodate a growing international student presence.46

Conversely, higher education institutions are encouraging students to study abroad in order to raise their global awareness and enable them to compete in an increasingly international economy. Indeed, spending a semester or more overseas has become a staple of the academic experience at many top-tier colleges and universities. Many community colleges have also begun offering study abroad options to their students. Parkland College in Illinois, for instance, offers several short-term overseas study courses that send students to destinations like Costa Rica, Senegal, and Ecuador.47

---

Oakton College sends students to Latin America and Europe through the Illinois Consortium for International Studies and Programs.\footnote{Ibid.}

To illustrate the trend of greater globalization in higher education, this section draws on data from the past ten years of the Open Doors report, published by the Institute of International Education. Supported by the U.S. Department of State's Bureau of Educational and Cultural Affairs, the Institute for International Education is a non-profit organization that conducts statistical surveys of international students studying in the U.S. and Americans studying overseas. The graphs below and on the following pages illustrate the IIE’s major findings, which are published in its annual Open Doors report.

A number of trends can be detected from the data, including:

- Rising enrollments of international students at U.S. higher education institutions since 2006, including at associate-degree granting colleges;
- Rising number of American students going abroad since 2000; and
- A somewhat ambiguous pattern of U.S. students enrolled in associate-level programs opting to study abroad.

A press release of the IIE’s 2009 Open Doors report announced that “the number of international students at colleges and universities in the United States increased by 8% to an all-time high of 671,616 in the 2008/09 academic year.”\footnote{“Record Number of International Students in U.S. Higher Education,” Institute of International Education, <http://opendoors.iienetwork.org/?p=150649>, November 16, 2009} This can be seen in Figure 1, which shows that the number of international students studying in the U.S. has increased by an average rate of 3% over the past ten years, with a dip in enrollment between the 2003-2004 and 2005-2006 academic years.\footnote{“International Student and Total U.S. Enrollment,” IIE, <http://opendoors.iienetwork.org/?p=150810>} However, since 2006, international student enrollment has grown by about 19%. Similarly, another press release from the IIE announced that “the number of Americans studying abroad increased by 8.5% from the 2006/2007 academic year to 262,416 in the 2007/08 academic year.”\footnote{“Americans Study Abroad in Increasing Numbers,” IIE, <http://opendoors.iienetwork.org/?p=150651>, November 16, 2009.} The steady increases of American students studying abroad since 1999 can also be seen in Figure 1.\footnote{“Open Doors 2009 Data Tables,” IIE, <http://opendoors.iienetwork.org/?p=150807>}

\footnote{Ibid.}


\footnote{“International Student and Total U.S. Enrollment,” IIE, <http://opendoors.iienetwork.org/?p=150810>}

\footnote{“Americans Study Abroad in Increasing Numbers,” IIE, <http://opendoors.iienetwork.org/?p=150651>, November 16, 2009.}


\footnote{Ibid.}
Figure 1: Total International Students Enrolled in Higher Education Institutions in the U.S. and Total U.S. Student Studying Abroad (in Thousands)

Source: IIE

The IIE’s data on international students studying in U.S. higher education institutions may be broken down by the type of institution attended. Figure 2 shows the data for associate, degree-granting institutions. As seen below, the about 95,800 international students enrolled in associate degree-granting colleges during the 2008-09 academic year,\textsuperscript{53} about a 10.5% increase from the previous year.\textsuperscript{54} International student enrollment at these institutions increased at an average rate of 3.6% over the past ten years. Like other institutions, colleges granting associate degrees experienced a decline in students in the years following the September 11\textsuperscript{th} attacks, but enrollment appears to have been growing since 2006.
Figure 2: Total International Students Enrolled in Associate Degree-Granting Institutions in the U.S. (in Thousands)

Source: IIE

Similar to the data on foreign students, the IIE's data on American students studying overseas may be broken down by academic level. Figure 3 shows that about 5,770 American students enrolled in associate-level programs studied abroad in 2007-2008, about an 11.6% decrease from the previous year. Indeed, the trend of American students enrolled in associate degree programs studying abroad does not reflect the steady increases of all American students studying abroad, as seen in Figures 1 and 3. In the past ten years, there have been a number of declines in associate degree-seeking students going abroad – for example in 1999-2000, 2003-2004, and 2007-08 academic years.55

Figure 3: U.S. Associate's Degree Students Studying Abroad

Source: IIE

55 "Percent of U.S. Study Abroad Students." IIE. <http://opendoors.iienetwork.org/?p=150839>
Trend 5: Going Green

An October 2009 article in the higher education section of *Forbes Magazine* begins with the observation that “everything under the sun is being sold as green, and higher education is no different.” In a series of features, the magazine has spotlighted “America’s greenest colleges”, such as Evergreen State College in Washington and College of the Atlantic in Maine. Evergreen obtains 100% of its electricity from renewable sources, and College of the Atlantic is unique in that students can only major in human ecology. Another indication of the growing interest in sustainability in higher education is the growing number of college presidents who have signed the American College and University Presidents’ Climate Commitment (ACUPCC), pledging to take efforts to eliminate their campuses greenhouse emissions over time. In August 2008, 526 presidents had signed the ACUPCC. To date, the ACUPCC boasts 665 signatories, a 26.4% increase over a year and a half.

According to *Forbes*, higher education institutions are “going green” because of public concern about climate change and are interested in reaping financial returns on sustainable investments, such as energy-efficient buildings and recycling efforts. Additionally, some organizations have begun ranking colleges based on their commitment to sustainability; Princeton Review, for one, includes “green ratings” in its college guides. Higher education institutions are aware that sustainability is playing a bigger role in many students’ decision to apply. In the 2008 survey of freshman at four-year colleges and universities, for instance, the Higher Education Institute learned that nearly 30% of students reported feeling that it is "essential" or "very important" to help clean up the environment. This was about a 3% increase from 2007 and more than a 7% increase from 2006.

This section demonstrates the sustainability trend in higher education by drawing on the results of the The College Sustainability Report Card, an assessment issued by the Sustainable Endowments Institute (SEI). SEI, a nonprofit founded in 2005, engages in research and promotes sustainability in campus operations and endowment practices. Since 2007, the SEI has issued “green report cards” annually to hundreds of colleges and universities in the U.S. on the basis of their performance across 43 indicators in nine categories. By examining the average performance of colleges and

---

57 Ibid.
61 Ibid.
their collective performance across the various SEI's categories and indicators over the past three years, we can see the trend of “going green” in higher education.

Data from the The College Sustainability Report Card indicate that:62

- Colleges are progressively, but incrementally, receiving better grades for their sustainability efforts;
- About nine in ten colleges maintain websites to inform the college community and public about sustainability initiatives; have an advisory council to guide the administration on issues of campus sustainability; and offer fair-trade items like coffee in their dining halls;
- Three-fourths of colleges have committed to green building criteria in new construction and renovation and maintain vehicles that run on clean-burning fuels or electricity;
- About two-thirds of colleges employ full-time staff to develop, facilitate, and oversee sustainability goals; and
- Few colleges have invested in community development loans and other local enterprises, but this is steadily increasing.

The graphs below and on the following pages illustrate some of the SEI's major findings from 2008-2010.63

Figure 1, on the next page, demonstrates that the proportion of postsecondary institutions receiving passing grades on the Green Report Card have steadily increased in the past few years. For 2010, 5% more colleges and universities received “A” averages than for 2008, and nearly half received a “B” average. Alternatively, fewer colleges received failing grades of “D” and “F,” with no colleges receiving an “F” in 2010.

---

63 Ibid.
Figure 1: Cumulative Grade Distribution of U.S. Colleges and Universities on the Green Report Card

Another way that SEI data can be used to illustrate progress on sustainability is by examining changes in the proportion of higher education institutions that have satisfied requirements for some of the assessment indicators.

Figure 2a demonstrates that over nine in ten institutions now use a website to communicate sustainability initiatives to the campus community and public. More than two-thirds employ full-time staff dedicated to sustainability. The proportion of colleges that have an office focused on achieving sustainability goals increased by more than 20% between the SEI assessments for 2009 and 2010.