



# Trends in Higher Education

March 2005

The Society for College and University Planning publishes this quarterly environmental scanning report as one outcome of routine work which informs our board of directors. We share this in the interest of providing our members and the broader higher education community with an ongoing analysis of trends that affect integrated planning in institutions. For your convenience, trends are categorized as Demographics, Economy, Environment, Learning, Politics, and Technology. Within each category we share some facts from our environmental scanning and we also share with you some of our thoughts about the implications of those facts.

We hope that you find it useful and welcome your thoughts and comments; share them by email at [trends@scup.org](mailto:trends@scup.org). This report and others in the series can be found in SCUP's website.

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## Demographics

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**Fact:** Only 55 percent of American students who start college complete within six years and only 41 percent of African American or Hispanic students.

- Attracting qualified minority students has become more complicated following the recent Supreme Court cases: many selective campuses are not reaching their admission targets.
- Since 1980 the percent of students who plan to work full-time while in school has risen to 6.3 percent.
- The most recent Cooperative Institutional Research Program (Astin) survey of freshmen found that 48 percent had 'A' averages in high school, so ability may not be the primary factor in completion.

**Our Thoughts:** Retaining students needs to be as high a priority as recruiting them—successful retention always helps recruiting.

- Programs that support groups of minority students from the same high school in attending selective schools together show promise for increasing retention above and beyond meeting financial needs.
- Research indicates that the two factors contributing most to college graduation are what students come with (academic preparation and performance in high school) and whether they can stay in college without stopping out (continuous enrollment).



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- Fact:** **Rates of growth in the 18- to 24-year-old and 25-and-older populations vary widely across states over the next 10 years.**
- 17 states, mostly in the West, will experience greater than 10 percent growth in the traditional student population of 18- to 24-year-olds.
  - Seven ‘rust belt’ states are most likely to experience low growth (i.e., less than 10 percent) in both population groups.
  - Community colleges will continue to increase their share of college-goers in all population groups.

- Our Thoughts:** **How can we make sure that students’ needs for access are met? Should we also ensure that states ‘poor’ in population aren’t disadvantaged in higher education access?**
- Four-year institutions are becoming increasingly selective as applicants rise and budgets go down; including those publics with access mandated.
  - The capacity of community colleges to absorb more students is severely limited. Without additional funds, building the space to meet those needs will be difficult. One funding exception may be residence halls, as community colleges expand their reach.

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- Fact:** **Student visa requests increased for the first time since the 9/11 attacks and the passage of the Patriot Act.**
- Applications for admission, however, are still below 2001 numbers.
  - A proposal by the administration would increase the cost of visas for foreign scholars and university employees to \$500 from under \$100.

- Our Thoughts:** **Foreign enrollments on US campuses have now dropped to their lowest level since 1971.**
- Major graduate institutions reported a drop of 6 percent in foreign enrollments.
  - The sharpest drops were in enrollments from India, China, and Japan.
  - China and India are rapidly building their own higher education infrastructure. International opportunities for architecture, construction, and engineering in higher education will abound.



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# Economy

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- Fact:** Congress and the president are still working on the Higher Education Reauthorization Act (HERA) and things continue to look bad for all higher education institutions—the president’s budget makes major, significant cuts.
- The National Center for Public Policy and Higher Education paints a dim picture of college affordability with grades of ‘F’ going to 36 states and ‘D’ to another 11.
  - While Congressman Howard P. “Buck” McKeon’s legislation to ‘punish’ colleges for large tuition increases was withdrawn, he’s still working to include institutional reporting requirements on costs in the HERA.
  - Pell, Perkins, research funding—nothing is sacred and everything is going down or away.

- Our Thoughts:** All but three states had an increase in revenue projections in 2004—but mostly they’re replenishing their rainy day funds in fear of bad times coming back soon.
- We’ll continue to see large endowment and capital campaign announcements from more and more campuses.
  - Community colleges are now turning to fund raising beyond grant writing in an effort to increase revenues.
  - Affordability will continue to decrease access and the ability of students to graduate on time, or at all.

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- Fact:** Tuition again saw a significant increase—an average of nearly 10% at public four-year institutions. Likewise, the average cost of books for one undergraduate semester is now \$900.

- Our Thoughts:** Institutions need to apply a much finer analysis to its aggregate look at yields as they relate to financial aid—the now infamous ‘tuition discounting’.
- Price sensitivity analysis is making its way into affordability analyses—what does it take to get the class you want?
  - Institutional research is vital to ensuring that sufficient information is available on each student and aggregates of students to determine what economic offers, to which students, create the desired yield.
  - Private institutions are ahead of publics in such analyses.



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- Fact:** **The global economy is more integrated than ever, which means perturbations in one place ripple quickly.**
- 2004 saw historic increases in the price of oil.
  - The US dollar continued to decline on world markets and may force the Chinese to re-value the Yuan before the end of 2005.
  - Rising US interest rates, however cautiously they increase, along with a drop in housing starts and sales, signal a short-lived recovery.

- Our Thoughts:** **The cost of doing business in US higher education institutions will continue to increase faster than the rest of the economy.**
- The building 'boom' will slow, if only because money just won't go as far.
  - Energy efficiency will return to the forefront as a key way to keep costs down in new and aging buildings.
  - Demand for metal, concrete, and other construction materials in Asia, following the tsunami and combined with the needs of China, mean that getting the building you asked for and can pay for will be difficult and take longer.

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## Environment

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- Fact:** **The Kyoto accord went into affect on February 16, 2005.**
- Signatories are pushing for legislation to meet its provisions—including using taxation as a tool for the greening of their countries.
  - Trading credits may provide a source of income for countries that produce fewer green house gases—how will they invest those funds?

- Our Thoughts:** **With or without the United States, the world is pushing for reduced pollution across borders.**
- Will US higher education institutions and companies lose the research and development game to those countries that have stronger financial incentives for green materials and practices?
  - Will other countries start imposing tariffs on US goods that aren't made in sustainable ways?
  - Will non-Kyoto signers be disadvantaged in global trade in other ways?



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**Fact:** Leadership in Energy and Environmental Design (LEED) certification remains the most recognizable symbol of green facilities. LEED is branching out, but not everyone sees the need to pay the US Green Building Council (USGBC) for that symbol.

- In 2001 there were 5 LEED-certified projects. By October 2004 there were 162 with 1,614 projects seeking LEED certification upon their completion.
- New construction LEED certification is where USGBC started. Now it's promoting criteria for certifying existing buildings, commercial interiors, and core and shell projects.

**Our Thoughts:** Sustainable design is simply becoming 'good design'. Energy conservation, students raised on environmental awareness, and local purchasing for economic development all played a role in this development.

- The spread of life-cycle costing will enhance the marketability of green building.
- Increasingly campuses are assigning a sustainability portfolio to a professional on campus. This helps in the sharing of best practices and provides a more easily identifiable locus for targeting green products/design.
- Green products and bidding are becoming more acceptable and desirable in campus purchasing offices.

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**Fact:** Commercial research in a variety of areas has interesting implications for green practices and design, as *The New York Times* reported in its annual review of the year in ideas.

- Translucent concrete has arrived on the scene, but presently it's too expensive for large-scale construction.
- Ben & Jerry's debuted a thermoacoustic freezer last year that uses helium or argon instead of hydrofluorocarbons for a significant decrease in hazardous chemical emissions. Pennsylvania State University researchers devised it and Ben & Jerry's gave Penn State the patent.
- A new fire-suppression system uses a liquid that evaporates 25 times faster than water, snuffing out fires by turning into a gas. It also disappears from the atmosphere five days after use and does not deplete the ozone layer.

**Our Thoughts:** Even on initially small scales, new processes and inventions will begin to open doors to more inventive design options.

- Translucent concrete offers options for smaller spaces, particularly at ground level, where visual contact increases safety, navigation ease, or aesthetics.
- While the ice cream freezer is still relatively small, such advances help reduce the depletion of the ozone layer.
- Fire-suppression that doesn't damage electrical equipment, library and art collections, and other critical documents could prove to be highly desirable for institutions.



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# Learning

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- Fact:** Since the passage of the Bayh-Dole technology-transfer law in 1980, the number of patents issued to universities has risen from under 250 to more than 3,600. Aside from patent revenues, bringing technologies to market has been a learning experience for business students.
- In 2002, US higher education institutions earned \$1.3 billion in patent revenues.
  - Between 1980 and 2002 more than 4,300 companies were formed based on academic research.

- Our Thoughts:** More often than not, engaging students in active and meaningful learning benefits not only the student, but also the university and community.
- How do we encourage faculty members to include applied learning with economic impacts in their courses?
  - High schools are increasingly requiring community service to graduate. For publicly supported institutions, a similar requirement may not be far off.
  - Service learning, internships, co-op placements have all been around for many years—with a little creativity, these opportunities could have documented economic benefits to go with their learning outcomes.

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- Fact:** Between early 2000 and early 2001, 46 percent of adults in the US participated in some type of adult education, not including full-time attendance at a postsecondary institution. By contrast, only 22 percent did in 1965.
- One percent more women (5%) than men (4%) participated in part-time college or university degree programs.
  - The higher the income level, the more likely an individual was to engage in adult education programs—either work-related or of personal interest.
  - Work-related courses were the type of educational activity in which adults participated most frequently (30% of all adults).
  - The more education a person had attained, the more likely he or she was to engage in adult education.

- Our Thoughts:** The desire for continuing education, including degree programs, is likely to keep growing over the next decade and beyond. Both work-related and personal interest courses will be in demand.
- Demands for continuing education by professional and other skilled groups will likely increase as more adults choose these careers. Insurance and legal risks might also push professionals to needing additional educational certification.
  - Adults are often better served by different classroom and pedagogical arrangements. Can four-year institutions be as flexible as two-years have proved to be?
  - For-profit higher education is a likely beneficiary of this trend.



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**Fact:** Neuroscience research continues to highlight the importance of emotion in most aspects of cognitive development, memory, problem solving, decision-making, and other cognitive functions.

**Our Thoughts:** The affective connections to learning are still not widely recognized in higher education.

- As digital intelligence is capable of more and more of the analytic, linear, sequential, and ‘left-brain’ functions, conceptual, big-picture, ‘right-brain’ functions will be increasingly necessary for professionals. How will higher education ensure that students gain or maximize these abilities?
- Classroom design influences our emotions as much as pedagogy. How will we re-conceptualize design to connect positive emotions and experiences with cognitive learning?
- Pedagogy that includes conscious attention to our ‘old brain’ needs might prove even more difficult for faculty to learn than integrating technology did.

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## Politics

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**Fact:** The Higher Education Reauthorization Act budget proposed by the Bush administration contains more drastic funding cuts than anyone imagined before the election.

- Fights about the removal of all funds for Perkins Loans, Tech-prep, and pre-college programs are a surety.
- Assessment is recommended for an increase, so No Child Left Behind for high school is more than likely to move forward. Will it make a difference for students’ readiness?
- Research funding is taking a cut for the first time in years.
- The National Endowments for the Arts and the Humanities are once again scheduled for elimination.

**Our Thoughts:** While the dust certainly has not settled yet, higher education is taking as big a hit at the federal level as it has in states over the past three years.

- Private institutions will start to feel the pinch, just as publics have—students, of course, will ultimately be the big losers as tuition keeps going up.
- It may be impossible for higher education to keep a united front in its lobbying to keep funds nearer to traditional levels—there are too many competing interests.
- K-12 and higher education will be more divided than ever as the pie only gets smaller and smaller.



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**Fact:**

**Legislation aimed at increasing accountability in higher education institutions continues to play well at the state and federal levels.**

- California's Performance Review commission sent a strong message to four-year institutions with its report last year that lowering costs and increasing the ease of transferring credits were key to continued funding. It also recommended that community colleges begin awarding four-year bachelor's degrees.
- While it didn't stay there, U.S. Senator Robert C. Byrd put a provision in the final spending bill for 2005 that would have required any educational institution that receives federal aid to offer its students instruction on the U.S. Constitution.

**Our Thoughts:**

**As costs increase, public institutions are going to see increased scrutiny from legislatures and Congress on what students are getting for their tuition dollars. Accreditation agencies' efforts to measure student outcomes aren't likely to be enough to convince parents, tired of high costs and kids who come home, that college is worth it.**

- Performance measurement and assessment are going to stay at the top of senior level administrators' list of issues. Proving that you've prepared a student for the world of work, no matter how loudly the liberal education is touted as laudable, is now a requirement of college graduation.
- State-wide post-graduation testing may continue to wax, since No Child Left Behind for college may not be far away.

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**Fact:**

**Europe's desire to allow seamless transfer across institutions is still far from being realized. The UK Higher Education Policy Institute reports that overly-bureaucratic solutions continue to dominate and they are just not working.**

- It's been a number of years since the Bologna Process was first outlined and the variation in awareness, let alone adoption of its principles among European countries and the institutions within them is as great as ever.
- U.S. students who study abroad often find their credits don't count, even when their own institution has sponsored the courses.

**Our Thoughts:**

**Global students want to be able to move their learning credits across all boundaries, not just within a country. Increasingly, students are going to want to study in a variety of institutions at different times in their careers. The first country that recognizes this and allows easy transfer will capture a large chunk of the future learners.**

- If credits aren't recognized within the EU, is Europe really likely to successfully compete for international students?



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# Technology

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**Fact:** Spending on information-technology in higher education is likely to decline again this year, but spending is still over \$5 billion.

- Although overall spending is declining, private institutions report an expected increase of close to 28 percent.
- Public institutions expect a drop of 13 percent in technology spending.
- Private institutions report averaging \$553 in technology spending per student, while publics average only \$203.

**Our Thoughts:** Technology spending in all sectors has finally begun to slow. The productivity promises of the 1980s have arrived and technology may not be able to contribute much more to the efficiency of educational delivery.

- Fewer institutions say they're offering distance education programs 64 percent this year versus 67 percent last year.
- Public institutions just can't afford to keep pouring money into hardware, especially when they have to reduce technology support personnel on the payroll.
- Parents and students, while expecting excellent connectivity, may no longer be willing to pay escalating technology fees on top of tuition increases. If communities go wireless, campuses will try to piggy-back.

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**Fact:** Unlike other technology spending, wireless access is on the rise across the country.

- The overall wireless market is likely to go over \$200-billion in the next three years. 2004 again saw double-digit growth in wireless communications technology in the US.
- Seventy-nine percent of colleges surveyed recently reported having wireless networks, up from only 45 percent in 2002.

**Our Thoughts:** The convergence of wireless devices continues to speed up, as the old Dick Tracey vision of instant access anywhere has finally come of age.

- Eventually the US will have to adopt the global standards used elsewhere.
- Global students will expect professors to be as flexible and adept at electronic communication as they are, no matter where they are located. While faculty members have mostly learned the power of email, ubiquitous connectivity means much more than that.
- Power lines are now likely to be the way that everyone gets access into their house, with wireless taking over from there. The rural-urban divide will finally disappear.



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**Fact:** The southern state in India that is the center of its information technology industry plans to build a high-speed broadband network that provides access to all its citizens within two years.

- The government and private industry have forged a partnership to make sure that everyone has access in an effort to push even further in its plans to be a knowledge-based employment center.
- US school children are now tutored by Indian nationals through the Internet.

**Our Thoughts:** Outsourcing is no longer limited to manufacturing and help centers. High value added services, like education, tax preparation, medical diagnostics, and legal services are all going to India—a country that will soon have more English speakers than the rest of the world combined.

- It won't take US for-profit higher education providers long to realize that India is place that's both a market and supplier of its products and services.
- Will US research institutions begin to outsource some their more hazardous experiments? More and more data collection is becoming routine with the introduction of technology, so out-sourcing research may well be just around the corner.

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**Fact:** Students are showing up on campuses with more electronic devices and they're expecting technical support for all of them.

- The University of Minnesota now sets up 'computer inoculation stations' in residence halls to help students keep their computers free of viruses and spyware.

**Our Thoughts:** This may be the perfect opportunity for partnerships with for-profit services. Ensuring that students aren't infecting university systems is becoming a necessary expense in the age of increasingly nasty attacks on campuses computing environments.

- Is it time for campuses to consider computer 'health' insurance for students? Priced right it could help students and the university simultaneously, particularly now most campuses are requiring students to come ready to compute.
- Could those unused computer labs become quick diagnostic and repair centers?

