



Environmental Scan 2010



Owens Community College

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Office of Institutional Research

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Introduction

The Environmental Scan 2010 is a compilation of trends and events that shape the environment in which Owens Community College operates. It contains information describing factors external to Owens Community College, the external scan, as well as information about Owens Community College itself, the internal scan. The external component consists of demographic, economic, social/cultural, technological, political/governmental, environmental/physical, educational, and workforce factors. The internal component focuses on Owens Community College enrollment, retention, academic preparation, student engagement and accountability metrics. Although dealt with separately in this document, these factors are integrated and combine to produce a complex environment that must be viewed as a system, each part affecting the others.

Materials for Environmental Scan 2010 were gathered from written reports, electronic media, and major publications. The information was reviewed and chosen with an eye toward how the information could provide opportunities or threats for future planning. The Environmental Scan 2010, when used in conjunction with the AQIP Systems Portfolio, provides a comprehensive view of the “Owens World” that impacts our strategic planning and decision-making.

The Executive Summary provides key points from the external and internal scans. Each point can be found in more detail in the associated narrative section. Following the Executive Summary are the External Scan and Internal Scan Narratives.

Executive Summary

The environment in which Owens Community College operates is continuously changing. Sometimes a significant event occurs that has a visible and immediate impact on the way we operate. In other instances, situations gradually evolve, but nonetheless they also affect our business practice. In order to stay on our path toward achievement of our mission, we must understand the changes that are occurring around us and use that strategic intelligence in planning and decision-making that will affect our future. Following are the key points from the external and internal scan narratives that provides context for planning.

External Scan Highlights

Demographic Factors

Service Area Trends

- The total population of our service area is decreasing. (p.14)
- The population of the age groups 15-19 and 20-24 in our service area has peaked and is projected to decline by about 10 percent over the next 10 years. (p.14)
- The population aged 15-44 in our service area has steadily decreased since 2000 and the decline is projected to continue. (p.14)
- The minority and Hispanic populations are growing at a faster rate than the White non-Hispanic population in our service area. (p.15)
- High school graduation rates have declined in the service area from 2006-2007 to 2007-2008. (p.16)
- Poverty rates are increasing in the service area but disproportionately across counties, with Lucas County showing greatest increases. (p.16)
- Per capita income increased more slowly in the service area than at state and national levels. (p.16)
- Toledo area leads a trend toward higher education with 60 percent of area 18 to 24-year-olds enrolled in higher education in 2008. (p.17)

National Trends

- Increasing numbers of students with learning disabilities are in the educational pipeline. (p.18)
- Postsecondary enrollment rates for the traditional college-age population have plateaued over the past 5 years. (p.18)
- In 2009, high school graduates headed to college in record numbers. (p.18)
- Growth is projected to continue for undergraduate enrollment at two-year institutions, especially among females. (p.18)
- Number of young adults attending college has hit an all-time high. (p.18)
- Full-time students are a growing share of college enrollments, especially at two-year institutions. (p.19)
- The status dropout rate continues to decline. (p.19)
- Differences in the immediate college enrollment rate by race and family income persist. (p.19)

- International student enrollment is increasing. (p.19)
- The number of degrees earned is increasing at a faster rate for non-Whites and females. (p.20)
- Private for-profit institutions are gaining market share. (p.20)
- Community college enrollment is up with no rise in student age. (p.20)
- Demographics will continue as a driving force for development and reform of global higher education in the coming decades. (p.20)
- The United States is headed for “demographic singularity”. (p.21)
- Empowering girls through education will improve future communities. (p.21)
- Companies will see the age range of their workers span four generations. (p.21)
- College gender gap appears to be stabilizing with one notable exception – Hispanics. (p.21)

Economic Factors

- Donations to educational organizations show a large decline. (p.22)
- Individual giving has decreased along with corporate donations and foundation grants. (p.22)
- Sharp drop is seen in gifts to colleges and universities. (p.22)
- Scholarships for college have dwindled as providers pull back their support. (p.23)
- More students borrow to pay for college. (p.23)
- Students are borrowing more and taking on riskier forms of debt than ever before. (p.23)
- Students rely on federal loans to pay rising tuition. (p.23)
- Tuition costs are less at community colleges. (p.23)
- Dislocated workers have a unique opportunity to take advantage of federal funding that will pay for training to acquire new job skills. (p.23)
- Twin forces of global economic contraction and technological evolution are altering the outlook for American consumers. (p.24)
- Toledo Public Schools are in dire financial condition. (p.25)
- Social safety nets will get cut. (p.26)
- The United States will see a shrinking labor force and growing income disparity by 2050. (p.26)
- Phantom economic recovery exists for the middle class. (p.26)
- Higher Education in the U.S. is at a turning point with money, enrollment and academic effectiveness being top issues. (p.26)

Social/Cultural Factors

- Millennials appear more alike than different from their parents’ generation concerning factors important in college choice. (p.27)
- Millennials are really different than generations before them – confident, connected and open to change. (p.27)
- Students primarily use social networking sites for socializing-communicating. (p.27)
- Recession is having a considerable impact on high school seniors and their families. (p. 28)
- Homeschooling is increasing in the U.S. (p. 28)
- Majority of adult Americans now have broadband internet connections. (p.28)
- Mobile connectivity is now a powerful differentiator among technology users. (p.28)
- An increasing percentage of older generations are now online doing more online activities. (p.29)

- The internet and cell phones have become central components of modern family life. (p.29)
- The majority of employed adults (62%) use the internet or email at their job, and many have cell phones and Blackberries that keep them connected even when they are not at work. (p.29)
- Teens write a lot, but they do not think of their emails, instant and text messages as writing. (p.30)
- Content creation by teenagers continues to grow. (p.30)
- Adults seeking higher education often are career re-inventors. (p.30)
- For the First Global generation, the American Dream is shifting away from materialism toward the search for inner tranquility – a tendency to look for a deeper meaning from life. (p.30)
- Important social trends that will unfold over the next 20 years that drive business futures: emergence of China as the world’s largest economic power; global demographic and migration shifts; energy and water shortages; managing waste, reusing products; falling educational standards, less-skilled thought leaders; brand relationships intensify; instant gratification shopping; on-demand media; customization, personalization and community experiences; youth rules. (p.31)
- The U.S. is moving toward a matriarchal economy. (p.31)
- A digital divide separates socioeconomic classes. (p.31)
- Young people will read more and the old will play more video games. (p.31)
- Self-reliance and cooperation will become prevalent societal values as Generation X and Generation Y replace the baby-boom generation. (p.31)
- American adults are delaying the future. (p.32)
- Communications systems are altering human behavior. (p.32)
- Targeted college campus violence, from serious assaults to the mass shootings, is up sharply over the last two decades. (p.32)

Technological Factors

- Emerging technologies that will likely enter mainstream use in learning-focused organizations in the next five years (2010-2015): mobile computing, open content, electronic books, simple augmented reality, gesture-based computing, and visual data analysis. (p.33)
- Critical challenges in 2010 ranked as most likely to have a significant impact on teaching, learning and creativity:
 - The role of the academy — and the way we prepare students for their future lives — is changing.
 - New scholarly forms of authoring, publishing, and researching continue to emerge but appropriate metrics for evaluating them increasingly and far too often lag behind.
 - Digital media literacy continues its rise in importance as a key skill in every discipline and profession.
 - Institutions increasingly focus more narrowly on key goals, as a result of shrinking budgets in the present economic climate. (p.35)
- Emerging technologies that will likely enter mainstream use in learning-focused organizations in the next five years (2009-2014): mobiles, cloud computing, geo-everything, personal web, semantic-aware applications, and smart objects. (p.36)
- The top trends 2009 affecting the areas of teaching, learning and creative expression:

- Increasing globalization continues to affect the way we work, collaborate and communicate.
 - The notion of collective intelligence is redefining how we think about ambiguity and imprecision.
 - Experience with and affinity for games as learning tools is an increasingly universal characteristic among those entering higher education and the workforce.
 - Visualization tools are making information more meaningful and insights more intuitive.
 - As more than one billion phones are produced each year, mobile phones are being enhanced from unprecedented innovation, driven by global competition. (p.37)
- Critical challenges in 2009 ranked as most likely to have a significant impact on teaching, learning and creativity:
 - There is a growing need for formal instruction in key new skills, including information literacy, visual literacy, and technological literacy.
 - Students are different, but a lot of educational material is not.
 - Significant shifts are taking place in the ways scholarship and research are conducted, and there is a need for innovation and leadership at all levels of the academy.
 - We are expected, especially in public education, to measure and prove through formal assessment that our students are learning.
 - Higher education is facing a growing expectation to make use of and deliver services, content and media to mobile devices. (p.37)
- Top 10 IT Issues 2009: Funding IT; Administrative/ERP Information Systems; Security; Infrastructure / Cyber-infrastructure; Teaching & Learning with Technology; Identity/Access Management; Governance, Organization, Leadership; Disaster Recovery/Business Continuity; Agility, Adaptability, and Responsiveness; Learning Management Systems (p.38)
- Top 10 IT Issues 2008: Security; Administrative/ERP Information Systems; Funding IT; Infrastructure; Identity/Access Management; Disaster Recovery/Business Continuity; Governance, Organization, and Leadership; Change Management; E-Learning/Distributed Teaching and Learning; Staffing/HR Management/Training (p.39)
- Major tech advances are expected as the phone becomes a primary device for online access, voice-recognition improves, artificial and virtual reality become more embedded in everyday life, and the architecture of the internet itself improves. (p.39)
- Cyber-learning has the potential to transform education throughout a lifetime, enabling customized interaction with diverse learning materials on any topic and supporting education at any age. (p.40)
- “Serious Gaming” will help train tomorrow’s health workers. (p.40)
- Bio-violence will become a greater threat as the technology becomes more accessible. (p.40)
- Top tech trends from the American Library Association include: recent explosion of discovery systems featuring aggregate indexes of subscriptions and local content; use of the concept “user experience” in new design of technology-driven services; change of patron expectations as they accomplish an increasing number of daily tasks on mobile devices; augmented reality—“the combination of the real and virtual... in real time and in a 3-D nature”; coming adoption of HTML 5 and CSS 3 may jumpstart development of mobile-optimized web portals; reinvention of the book. (p.41)

Political/Governmental Factors

State Level

- Ohio adopts Strategic Plan for Higher Education. (p.41)
- Ohio participates in the Common Core State Standards Initiative. (p.41)
- State budget woes result in one of Ohio's worst budgets in 80 years. (p.41)
- Ohio must make tough decisions to emerge a winner from the current recession. (p.42)
- [Pro-solar bills on horizon in Ohio](#) but critics say state must become more competitive. (p.42)
- The Ohio High School Core Curriculum legislation fosters dual enrollment, requires standards for Advanced Placement scores, and phases out subsidy for academic remediation conducted at university main campuses. (p.42)
- New funding model for Ohio Community Colleges is outcomes based -- focusing on enrollment and completion. (p.43)
- Textbook Affordability Act was introduced in the Ohio House of Representatives in March 2010. (p.43)
- Ohio Board of Regents publishes the third annual Condition of Education in Ohio that underscores the need to deliver high quality education to more Ohioans with existing resources. (p.43)

Federal Level

- Amendments to the American with Disabilities Act (ADA) are likely to result in higher costs to institutions (p.44)
- Colleges and universities in the US continue to be saddled with a variety of costly compliance-related expenses. (p.44)
- Education Department gives colleges new flexibility on student-privacy law. (p.45)
- College for all is championed in the Inaugural Address. (p.45)
- Fiscal fortunes of education at all levels changed with the American Recovery and Reinvestment Act of 2009. (p.45)
- Reliable methods for tracking students throughout their educational careers are likely to be implemented. (p.45)
- The Student Aid and Fiscal Responsibility Act signed into law. (p.45)
- Obama administration calls for expanding Pell Grants. (p.45)
- New federal law taking effect in July is aimed at controlling textbook costs. (p.46)
- Debate for reauthorization of the Workforce Investment Act started. (p.46)
- \$225 million earmarked for training. (p.46)
- House approves student loan bill. (p.46)
- National Broadband Plan is proposed to Congress. (p.46)
- University Sustainability Grants Program created. (p.47)
- New Federal Rules for Educational Internships are released. (p.47)
- Education Department reverses 2005 Title IX policy. (p.47)
- Education Department announces it will revise rules on the release of student records. (p.47)

Environmental/Physical Factors

- Since December 2006, 645 colleges and universities, representing 5.7 million students, have made the commitment to the American College and University Presidents' Climate Commitment to address global climate disruption. (p.47)
- University System of Ohio Chancellor reinforces commitment to reduce energy consumption and create sustainable campuses. (p.48)
- Feds eye certification for retrofit workers. (p.48)
- New tech for windows can save on energy costs. (p.49)
- Water conservation catching on at some campuses. (p.49)
- The rapidly growing carbon footprint associated with information and communications technologies, including laptops and PCs, data centers and computing networks, mobile phones, and telecommunications networks, could make them among the biggest greenhouse gas emitters by 2020. (p.49)

Educational Factors

E-Learning

- Within ten years over half of instruction will take place online. (p.50)
- Education will be portable, and learning will be “on-demand”. (p.50)
- Colleges must make choices as they approach critical mass in distance offerings regarding faculty hiring, faculty training, faculty expectations, local ties, technology infrastructure, evaluation of on-line teaching, and organizational structure. (p.50)
- Virtual education will enter the mainstream by 2015. (p.50)
- Community Colleges shift focus on distance education toward assessment, support and accreditation. (p.50)
- Colleges are testing students for online readiness. (p.51)
- Online enrollment jumped 17% in 2009. (p.51)
- Distance education at community colleges grew 22 percent from 2007-2008 to 2008-2009. (p.51)
- E-Learning Trends 2010 –
 - Public two-year colleges lead other sectors in providing online courses.
 - Double digit enrollment growth is accompanied by reductions in staff to serve new students.
 - Increased competition with proprietary institutions.
 - Reductions in state and local funding reduce the ability of community colleges to expand online offerings.
 - Nearly 90 percent of online programs cap enrollment to ensure quality.
 - Community colleges enjoy several competitive advantages (p.51)
- More colleges outsource the hosting services for their online classes. (p. 52)
- Students using online services of publishers up sharply. (p.52)
- Shift toward e-learning activities and outsourcing delivery by training organizations. (p. 53)

K-12

- The Ohio 2010-2011 Budget will effectively overhaul the curriculum and the ways schools in Ohio operate. (p.53)

- High Schools to offer plan to graduate 2 years early. (p.53)
- Ohio high school students entering their freshman year this fall will face tougher math requirements. (p.53)
- Ohio colleges should begin to see more academically prepared direct from high school students, starting with the High School Graduating Class of 2014. (p.53)
- Ohio's K-12 standards need to more closely bridge to those of higher education and match those of world-class systems, and its assessments need to become more accurate predictors of student readiness for college and work. (p.54)
- Early College High School is a promising approach for at risk students. (p.55)
- Higher Education has yet to feel the full effects of the economy. High schools are building career academies in the place of "traditional" high schools, preparing students for transition into post-secondary institutions or the job market. (p.55)

Postsecondary

- Tax loopholes fuel for-profit colleges' expansion. (p.55)
- Community Colleges are pooling efforts to counter marketing by for-profits. (p.55)
- E-readers could change learning. (p.56)
- The drive to collect, analyze, use and share student performance data is intensifying nationally. (p.56)
- Community Colleges are urged to improve graduation rates through a renewed focus on developmental education. (p.56)
- Interesting trend when it comes to students learning developmental math: The more you take the same algebra class, the less chance there is to pass it. (p.56)
- Community colleges are enhancing seamless articulation and transfer to four year universities through creation of university centers. (p.56)

Global Education

- Shifting demographics, technological breakthroughs, and the volatility of international political and economic conditions make it unlikely that patterns of the past will easily or reliably predict the future for global education. (p.57)
- OpenCourseWare network is opening and reshaping global access to higher education. (p.58)
- Majority of U.S. students choose short-term programs when studying abroad. (p.59)
- Education abroad at community colleges has several key characteristics that distinguish it from education abroad at four-year institutions, and these differences necessitate a distinct approach to expanding study abroad opportunities for community college students. (p.59)

Workforce Factors

Employment and Labor Force

- The unemployment rate increased in each county of the service area from 2008 to 2009, to 12.2% in Lucas County and over 10 percent in Hancock and Wood Counties. (p.60)
- The number of Worker Adjustment and Retraining Notification (WARN) notices in Hancock, Lucas and Wood Counties increased nearly 45% from CY2007-CY2008. (p.60)
- Job losses will likely continue to moderate, although most economists expect the unemployment rate will peak above 10 percent. (p.60)

- A large portion of hard-to-fill positions are blue collar jobs. (p.61)
- High-tech or service-oriented job training is on track for today's economy. (p.61)
- Talent shortages will undermine economic recovery. (p.61)
- The U.S. labor force could rise considerably in 2009 and 2010 with the addition of young people that previously opted out of the work scene and older workers delaying retirement. (p.61)
- Retirees in the United States will increasingly return to work. (p.61)
- Millennial Generation are more educated but less employed. (p.61)

Job Outlook

- Employment drops by half in motor vehicle and parts industry since 2000. (p.62)
- Healthcare forecasted to be one of Ohio's fastest growing economic sectors in the next 10 years. (p.62)
- The hottest jobs for 2016: network systems and data communications analysts, personal and home care aides; computer software engineer; and veterinary technologist/technician. (p.61)
- Many of the occupations projected to grow the fastest between 2008 and 2018 relate to health care and care of the elderly. (p.62)
- Most job openings over the period 2008-2018 will be in occupations that require short-term on the job training. (p.62)
- Job opportunities coming in the nuclear power industry. (p.62)
- Americans are spending big bucks on their pets, making jobs as a veterinarian or vet tech recession-proof. (p.63)
- The desalination industry will expand greatly. (p.63)
- Progress in the solar industry in Ohio may be much slower than originally thought. (p.63)
- Caregiver training is key to home care shift. (p.63)
- Security, risk management are hot IT areas. (p.63)
- Occupations that have the most growth and that usually require an associate's degree or postsecondary vocational award over the period 2008-2018 are largely related to healthcare, reflecting the growing medical needs of an aging population. (p.63)

Linking Education to Employment

- U.S. Department of Labor supports pathway programs at community colleges. (p.64)
- Top five learning outcome areas cited by business executives as most in need of increased emphasis by higher education are science and technology, applied knowledge in real-world settings through internships and other hands-on experiences, critical thinking and analytical reasoning skills, communication skills, and global issues. (p.65)
- Companies seek advanced skills in employees - critical thinking and problem solving, communication, collaboration, creativity and innovation will become more important. (p.65)
- Better and differently educated workforce needed for the 21st century. (p.65)
- Succeeding in future niche careers may mean choosing an unusual major. (p.66)
- Professional knowledge will become obsolete more quickly. (p.66)
- Superlongevity will have a growing influence on career choices. (p.66)
- New approaches needed for aligning workforce development with higher education. (p.66)

Human Resources

- HR scenarios for 2009 and beyond are likely to include salary freezes, pay cuts, reduction in pension contributions, and scrutiny of benefits such as medical insurance. (p.66)
- The percentage of workers planning to work after they retire is increasing. (p.67)
- The number of U.S. jobs filled by telecommuters could grow nearly fourfold to 19 million by 2012. (p.67)
- U.S. Senior citizens are postponing retirement due to financial concerns. (p.67)
- Decisions about retirement increasingly include such issues as managing health-care costs, developing an income-withdrawal strategy, and even—for the recently retired—“unretiring.” (p.67)
- Most middle-aged adults are rethinking retirement plans. (p.67)

Internal Scan Highlights

Enrollment

Headcount

- Over the period 2000 to 2009, Owens unduplicated headcount for an academic year increased 43.6% from 22,303 to 32,016. (p.70)
- The percent of females increased from 2000 to 2003 from 43.4 % to 47.7 %; however, from 2005 – 2009, the percentage dropped off and then fluctuated only slightly between 43.7% and 45.1%. (p.70)
- Over the period 2000-2009, the percent of Non-White students increased from 15.3% to 18.7%. (p.71)
- The headcount for non-resident aliens (international students) increased from 82 in 2000 to 264 in 2009. (p.71)
- From 2000-2009, the headcount for the Findlay campus increased 163% from 2,061 to 7,060. The Toledo campus increased 42.9% from 19,862 to 28,383. (p.72)
- The Fall Semester headcount of students attending the Source increased from 164 in 2007 to 700 in 2009. (p.72)

Full-time Equivalent Students (FTE)

- The FTE Enrollment increased nearly 43% from 8545 to 12213 over the period 2000 through 2009. (p.73)
- Subsidy Eligible FTE increased from 8189 to 11545 and Subsidy Ineligibles increased from 357 to 668. (p.73)
- The proportion of Annual FTE is shifting by course level with the most change occurring with increases in general studies and decreases in technical studies. Developmental studies peaked in 2003 and steadily declined until 2009. (p.73)
- Annual FTE for High School Enrollees increased from 138.1 in 2001 to 307.8 in 2009. From 2001 through 2008, high school enrollees were predominantly postsecondary option (PSEOP) students. In 2009, there was a greater than expected increase in non-PSEOP students. (p.74)

- In 2009, the Annual FTE for Distance Learning was nearly three times what it was in 2004, 2432.8 versus 636.9. (p.74)

Retention

- 74.5% of students who entered the College in Fall 2007 re-enrolled Spring 2008. (p.75)
- 49.4% of students who entered the College in Fall 2007 re-enrolled Fall 2008. (p.75)
- Most students who return to the College return to the same school in which they started. (p.75)
- On average, retention rates for full-time students (53.1%) are higher than for part-time students (39.6%). (p.75)
- Retention rates for female students (50.0%) are on average higher than for male students (46.6%). (p.75)
- Of the different ethnic categories, White students have the highest average retention rate (52.6%) and Black students have the lowest (30.4%). (p.75)
- Black males have the lowest average return rate of any gender and ethnic category (30.0%) and White females have the highest (54.3%), (p.75)
- Average return rates are highest among 18- and 19-year-olds (58.6% and 54.1%, respectively) (p.75)
- On average, return rates are highest among students with a first-term GPA between 3.01 and 3.50 (75.6%) followed by those with a first-term GPA between 3.51 and 4.00. (p.75)
- First to Second Year Retention for First-time, Full-time, Degree Seeking Freshman retained at the Same Institution is higher for the Findlay Campus compared to the Toledo Campus, and most recently, above the percentage for the Ohio Community College Sector. (p.75)
- First to Second Year Retention for First-time, Full-time, Degree Seeking Freshman retained statewide at an Ohio College or University is higher for the Findlay Campus compared to the Toledo Campus, and most recently, above the percentage for the Ohio Community College Sector. (p.76)

Academic Preparedness

- First year students under age 20 are more likely to take Developmental Math than students age 20 and older. (p.77)
- First year students under 20 are more likely to take developmental English than students age 20 and older. (p.78)
- Sixty percent of first year students at state community colleges take remediation in Math or English compared to 57% at the Toledo campus and 50% at the Findlay Campus. (p.78)
- The percentage of first year students under 20 taking remediation in Math and English at Owens is nearly the same as the percentage of the state community college sector (22% and 23% vs. 21%). (p.79)
- Students 20 and older are more likely to test into developmental math than students under age 20. (p.79)
- Students under 20 are more likely to test into developmental reading than students 20 and older. (p.80)
- Students 20 and older are more likely to test into developmental writing than students under 20. (p.80)

Student Engagement

- Sixty-seven percent of CCSSE student respondents identify obtaining an associate degree as a primary goal. Fifty-two percent are interested in obtaining or updating job-related skills, while 37.6% are primarily interested in transferring to a 4-year college or university. Thirty-two percent aspire to complete a certification program, while 34.8% of respondents seek to change careers. (p.81)
- Part-time students spend more time working for pay, 21 or more hours per week, than their full-time counterparts (67.5% vs. 49.3%). They also spend less time preparing for class than full-time students; 46.8% of part-time students spend 6 or more hours per week preparing, as opposed to 62.1% of full-time students. (p.81)
- There is minimal participation in college-sponsored activities by all students. (p.82)
- Regarding relationships with other students, CCSSE respondents judged the quality of their relationships quite favorably with the highest rating of 5-7 given by 79.8%. An even higher percentage (86.2%) gave favorable ratings to the quality of the relationships with instructors, while relationships with administrative personnel and offices were given a slightly less favorable rating (65.3%). (p.82)
- Ninety-five percent of CCSSE respondents report that they would recommend Owens to a friend or family member. (p.86)
- Eighty-eight percent of CCSSE respondents describe their entire educational experience at Owens as *Good* or *Excellent*, and only 1.3% rate their experience as *Poor*. (p.86)
- Students are most likely to use, express satisfaction with, and rate as important the following services: academic advising and planning, and computer labs. (p.86)

External Scan Narrative

The External Scan describes demographic, economic, social/cultural, technological, political/governmental, environmental/physical, educational, and workforce trends and events important to the institution. This strategic intelligence is useful in determining organizational strategies as well as defining potential threats, opportunities, or changes for the institution. It enables decision-makers to understand current and potential changes taking place in our external environment and alerts them to potentially significant external changes before they crystallize.

Demographic Factors

Service Area Trends

The Owens legal district includes the Ohio Counties of Hancock, Lucas and Wood as well as two school district areas in Ottawa County (Benton-Carroll-Salem and Genoa) and one school district in Sandusky County (Woodmore). The regional area includes Ohio Economic Development Regions 2 -Northwest Ohio (Defiance, Erie, Fulton, Henry, Lucas, Ottawa, Sandusky, Williams, and Wood Counties) and 3 – West Central Ohio (Auglaize, Allen, Hancock, Hardin, Mercer, Paulding, Putnam, and Van Wert). In this document, service area is defined as Hancock, Lucas and Wood Counties.

The total population of our service area is decreasing. According to the U.S. Bureau of Census, the population of Hancock, Lucas, and Wood Counties decreased by 1.1% from 647,410 in 2000 to an estimated 640,069 in 2008. Although Hancock and Wood Counties grew by 4.2% (2,978) and 3.5% (4,279) respectively, the loss of population in Lucas County (14,598 or -3.2%) more than offset the growth experienced in Hancock and Wood Counties.

Total Population

	Hancock County	Lucas County	Wood County	Ohio
2000 Census Population	71,295	455,054	121,061	11,353,145
2008 Census Population (Estimate)	74,273	440,456	125,340	11,485,910
2010 Projected	74,183	444,873	127,019	11,666,854
2015 Projected	75,739	439,368	129,500	11,816,168
2020 Projected	76,909	434,648	133,326	12,005,733

Source: Ohio Department of Development, Office of Policy Research & Strategic Planning 3/09

The population of the age groups 15-19 and 20-24 in our service area has peaked and is projected to decline by about 10 percent. High school and young adults are traditional target groups for community college recruitment. Census figures show the population Age 15-19 increased by 2.5% from 50,608 in 2000 to 51,880 (projected) in 2010. Projections indicate that over the next ten years, the population of this group will decrease to 45,780, a nearly 12% decrease from the peak in 2010. For the age group 20-24, the population increased 15.1% from 50,232 in 2000 to 57,830 (projected) in 2010 and is projected to decrease nine percent over the next ten years to 52,620.

The population aged 15-44 in our service area has steadily decreased since 2000 and the decline is projected to continue. Even though younger age groups may be specifically targeted, community colleges enroll students of all ages, but predominately from the 15-44 age group. From 2000 to 2010 (projected), the population of the 15-44 age group decreased from 286,297 to 270,710 (5.8%). Over the next 10 years, the decline is projected to continue, resulting in an additional 2.3 percent population loss to 264,610.

Population by Age Group

	Hancock County	Lucas County	Wood County	Ohio
Age 15-19 (2000 Census)	5,372	32,771	12,465	816,868
Age 15-19 (2008 Estimate)	5,448	33,175	11,670	809,174
Age 15-19 (2010 Projection)	5,620	33,990	12,270	901,940
Age 15-19 (2015 Projection)	5,230	31,560	12,410	872,240
Age 15-19 (2020 Projection)	5,120	28,780	11,880	862,860
Age 20-24 (2000 Census)	4,734	31,695	13,803	728,928
Age 20-24 (2008 Estimate)	5,179	31,495	15,151	762,549
Age 20-24 (2010 Projection)	5,350	34,290	18,190	776,400
Age 20-24 (2015 Projection)	5,440	32,790	15,580	825,670
Age 20-24 (2020 Projection)	4,910	30,420	17,290	806,490
Age 15-44 (2000 Census)	30,586	196,977	58,734	4,871,006
Age 15-44 (2008 Estimate)	30,090	178,613	57,450	4,590,870
Age 15-44 (2010 Projection)	29,790	183,630	57,290	4,685,990
Age 15-44 (2015 Projection)	30,240	180,700	57,630	4,688,750
Age 15-44 (2020 Projection)	30,400	176,130	58,080	4,708,640

Source: Ohio Department of Development, Office of Policy Research & Strategic Planning 3/09

The minority and Hispanic populations are growing at a faster rate than the White non-Hispanic population in our service area. Census data show the primary growth of the White non-Hispanic population occurred in Hancock and Wood Counties, 5.8% and 6.0% respectively. However, data for minorities and Hispanics show a growth rate about five times that of White non-Hispanics for all counties in the service area.

Population by Race and Ethnicity

	Hancock County	Lucas County	Wood County	Ohio
2000 Census White-non Hispanic Population	66,834	344,695	113,128	9,561,577
2008 Census White-non Hispanic Population (Estimate)	70,712	345,001	119,875	9,735,944
% Change 2000-2008	5.8%	0.1%	6.0%	1.8%
2000 Census Minority* Population	4,461	110,359	7,937	1,791,563
2008 Census Minority* Population (Estimate)	6,194	116,865	10,094	2,011,590
% Change 2000-2008	38.8%	5.9%	27.1%	12.3%
2000 Census Hispanic** Population	2,180	20,658	4,047	217,123
2008 Census Hispanic** Population (Estimate)	2,806	24,238	4,948	302,101
% Change 2000-2008	28.7%	17.3%	22.3%	39.2%

*The Minority Population category is computed by subtracting the non-Hispanic-one-race-only whites from the total population

** Hispanics may be of any race

Source: Ohio Department of Development, Office of Policy Research & Strategic Planning 3/09

High school graduation rates declined in the service area from 2006-2007 to 2007-2008.

While high school graduation rates decreased from 2006-2007 to 2007-2008 in all counties in our service area, the graduation rates of high school students graduating with honors increased in Hancock and Wood Counties. This data will need to be monitored over time to determine whether this is the beginning of a trend.

Graduation Rates

	Hancock County	Lucas County	Wood County	Ohio
High School Graduation Rate (2007-2008)	90.0%	72.7%	93.6%	84.6%
High School Graduation Rate (2006-2007)	93.1%	77.8%	93.7%	86.9%
High School Honors Graduation Rate (2007-2008)	26.0%	13.6%	22.5%	18.0%
High School Honors Graduation Rate (2006-2007)	21.9%	16.9%	20.7%	18.1%

Source: County and State Profiles, Ohio Department of Job and Family Services, September 2009

Poverty rates are increasing in the service area but disproportionately across counties, with Lucas County showing the greatest increases. Data from the U.S. Census Bureau shows the percent of persons below poverty level increased in each county in the service area over the period 2000-2008. However, the percentage for Lucas County increased nearly 5 percentage points, whereas the percent for Hancock and Wood Counties increased by 2.3 and .5 percentage points respectively. The percent persons below poverty level increased in the City of Toledo from 17.9% to 22.7% over the period 1999 through 2005-2007. In Ohio, the percent of Blacks and American Indian/Alaskan Natives in poverty is nearly three times that of Whites. The percentage for Hispanics is nearly 2.5 times that of Whites. Note that the data reflect increases in poverty prior to the Great Recession. It is highly likely that the trend of increasing poverty rates in the service area will continue until the economy in the region rebounds.

Poverty

Age Group	Hancock County	Lucas County	Wood County	Ohio	USA
Percentage Persons in Poverty 1999 (2000 Census)	7.5%	13.9%	9.6%	10.6%	12.4%
Percentage Persons in Poverty (2008) (Estimate)	9.8%	18.6%	10.1%	13.3%	13.2%

Sources: U.S. Census Bureau, [State and County Quick Facts](#)
Ohio Poverty Report, Department of Development, June 2009

Per capita income increased more slowly in the service area than at state and national levels. The per capita income of a region provides a good barometer of its economic health. Over the past decade, per capita income growth in Ohio has been highly correlated with employment growth. Even though per capita income increased in the service area, the increase was below the national percentage increase in all counties and below the state percentage increase in two counties, Hancock and Lucas. Note that this income data is prior to the Great Recession. It is highly likely that rate of change in per capita income since 2007 in the service area has slowed and may have reversed direction.

Income

	Hancock County	Lucas County	Wood County	Ohio	USA
Per Capita Income 2000	\$28,415	\$27,851	\$27,347	\$28,206	\$29,845
Per Capita Income 2007	\$34,131	\$33,197	\$33,528	\$34,468	\$38,615
% Change 2000-2007	20.1%	19.2%	22.6%	22.2%	29.4%

Source: County and State Profiles, Ohio Department of Job and Family Services, September 2009

Toledo area leads a trend toward higher education with 60 percent of area 18 to 24-year-olds enrolled in higher education in 2008. The job market is so bad that many 20-somethings are choosing school instead of the harsh reality of seeking employment. A study released by the Brookings Institution places the Toledo metro area at the top of that higher education, stay in school trend – with 60 percent of area 18 to 24-year-olds enrolled in higher education in 2008. That was the highest percentage of any of the nation’s 100 largest metro areas. It compares to just 45 percent in 2000. It’s impossible to pinpoint the exact reason for the surge in enrollment, but it is likely that the dismal job market in the metro area is a driving force. Other economic statistics from the study show from 2000-2008, median household annual income fell to \$44,548 from \$51,998, or by 14.3 percent. That was the third-largest rate of decline of the 100 largest metro areas. The average median hourly pay also fell to \$17.14 from \$18.64, or by 8 percent. That was the fourth-largest rate of decline.

Toledo Metro = Lucas, Fulton, Ottawa, Wood Counties					
Category	2000	2008	U.S.	Rank out of 100 largest metro areas	
<i>Education Attainment</i>					
% 18 to 24-year olds working on college degree	45%	60%	41%	1	
% population over 24 with a bachelor’s degree	21%	23%	28%	88	
<i>Work</i>					
Average median hourly wage	\$18.64	\$17.14	\$17.80	64	
Median Household Income	\$51,998	\$44,548	\$52,029	93	
<i>Population</i>					
	659,000	649,000	309.2 Million		
% households with married couples and children	21%	17%	21%	92	
% children in poverty	16%	21%	18%	17	

Sources: Brookings Institution, The Blade

Sources: [*“State of Metropolitan America: On the Frontlines of Demographic Transformation”*](#), Brookings Institution, May 2010, *“Toledo Area Leads Trend to Higher Ed”*, Toledo Blade, May 9, 2010

National Trends

Increasing numbers of students with learning disabilities are in the educational pipeline.

Since the enactment of the Individuals with Disabilities Act (IDEA) in 1975, the number and percentage of children and youth receiving special education services increased nearly every year until 2004-2005. In 1976-1977, some 3.7 million children and youth (or about 5 percent) were served under IDEA. By 2006-2007, some 6.7 million (or about 9 percent) were receiving services. The percentage receiving special education services for a specific learning disability, the most prevalent disability among school-age children, was 3 percentage points higher in 2006-2007 than in 1976-1977 (5 vs. 2 percent). *Source: “[Condition of Education 2009](#),” U.S. Department of Education, June 2009*

Postsecondary enrollment rates for the traditional college-age population have plateaued over the past 5 years.

Between 1970 and 2007, the enrollment of 18- to 19-year olds at the postsecondary level rose from 37 to 49 percent. The enrollment rate for young adults ages 20–21 increased from 32 to 48 percent and the rate for those ages 22–24 increased from 15 to 27 percent. Despite these increases in enrollment rates for young adults age 18-24 over time, during the past 5 years, there were few measurable differences in enrollment for these age groups. The enrollment rate for adults ages 25–29 increased from 8 percent in 1970 to 12 percent in 2007, while enrollment for adults ages 30–34 increased from 4 percent in 1970 to 6 percent in 1974 and has remained relatively stable (between 6 and 7 percent) from 1975 to 2007. *Source: “[Condition of Education 2009](#),” U.S. Department of Education, June 2009*

High school graduates head to college in record numbers. The share of new high-school graduates enrolled in college reached a record high last year, likely reflecting the weak job market they faced. Some 70.1% of the 2.9 million new graduates between the ages of 16 and 24 headed to colleges and universities, the Labor Department said Tuesday, based on data from January through October 2009. That percentage was a historical high for the data series, which began in 1959. College-enrollment rates have been rising gradually: In 2008, 68.6% of high-school graduates headed to college, up from 62.9% in 1999. But the poor economy, which has created a particularly tough labor market for young and uneducated workers, is amplifying the trend. *Source: “[Grads Head to College in Record Numbers](#),” *Wall Street Journal*, April 28, 2010*

Growth is projected to continue for undergraduate enrollment at two-year institutions, especially among females. Undergraduate enrollment at 2-year institutions increased from 5.9 million to 6.6 million (11 percent) from 2000-2007 and is expected to reach 7.5 million students by 2018. Between 2000 and 2007 two-year college enrollment rose at a faster rate for females (13 percent) than males (8 percent). According to projections, this pattern will continue, with female enrollment at 2-year institutions approaching 4.5 million in 2018 and male enrollment approaching 3.0 million in 2018. *Source: “[Condition of Education 2009](#),” U.S. Department of Education, June 2009*

Number of young adults attending college hits all-time high. The share of 18- to 24-year-olds attending college in the United States hit an all-time high in October 2008, driven by a recession-era surge in enrollments at community colleges. Nearly 11.5 million students, or 39.6% of all young adults ages 18 to 24, were enrolled in either a two- or four-year college in October 2008

(the most recent date for which comprehensive nationwide data are available). Both figures -- the absolute number as well as the share -- are at their highest level ever. College enrollment estimates based on the September 2009 CPS suggest that enrollment among 18- to 24-year-olds has not decreased from its 2008 peak. In September 2009, 39.9% of 18- to 24-year-olds were enrolled in college. In comparison, 38.6% of 18- to 24-year-olds were enrolled in college in September 2008. Hence, early indications suggest that 2009 college enrollment for 18- to 24-year-olds at a minimum continues at the high levels of college enrollment measured for 2008. *Source: “[College Enrollment Hits All-Time High, Fueled by Community College Surge](#),” Pew Research Center, October 29, 2009*

Full-time students are a growing share of college enrollments especially at two-year institutions. Full-time students have accounted for a growing share of college enrollments in recent years - especially at two-year institutions - as the number of students coming out of high school has steadily risen. This is a marked reversal of the trend seen in the 1980s and 1990s, when community colleges had to find ways to accommodate growing enrollments of part-time and nontraditional students. From 2000 to 2007, enrollments of full-time students at two-year colleges rose by 21%, compared with a 5% increase in enrollments of part-timers at such institutions. The total share of their undergraduate enrollment that was full-time rose from 37 percent to 41 percent in that period, and is expected to continue climbing, though at a much slower pace, through 2018. *Source: “[Condition of Education 2009](#),” U.S. Department of Education, June 2009*

The status dropout rate continues to decline. The status dropout rate represents the percentage of 16 through 24-year olds who are not enrolled in school and have not earned a high school diploma or equivalent credential, such as a General Educational Development (GED) certificate. In 2007, the status drop-out rate was 9 percent, down from 14 percent in 1980. In general, dropout rates for Whites, Blacks and Hispanics declined between 1980 and 2007, although in each year between 1980 and 2007, the status dropout rate was lower for Whites and Blacks than for Hispanics. *Source: “[Condition of Education 2009](#),” U.S. Department of Education, June 2009*

Differences in the immediate college enrollment rate by race and family income persist. The rate of college enrollment immediately after high school completion increased from 49 percent in 1972 to 67 percent in 1997 and fluctuated between 62 and 69 percent through 2007. For family income, despite an overall narrowing of the gaps, the immediate college enrollment rates of high school completers from low- and middle-income families trailed those of their peers from high income families by more than 10 percentage points in each year between 1972 and 2007. Differences in the immediate college enrollment rate by race/ethnicity have also persisted over time. For example, enrollment rates for Black and Hispanic high school completers have been lower than for their White peers almost every year since 1985. *Source: “[Condition of Education 2009](#),” U.S. Department of Education, June 2009*

International student enrollment is increasing. In the 1969-70 academic year, 135,000 students from other countries were enrolled in post-secondary institutions in the United States. International student enrollment increased each year through 2002-2003, declined over the next few years to 565,000 in 2005-2006 and increased again to 583,000 in 2006-2007 and to 624,000

in 2007-2008. International students account for 3 percent of students at the postsecondary level in 2007-2008; this percentage has remained between 3 and 4 percent since 1992-93. The top three countries of origin for international students studying in the United States in 2007-2008 were India, China and South Korea. *Source: “[Condition of Education 2009](#),” U.S. Department of Education, June 2009*

The number of degrees earned is increasing at a faster rate for non-Whites and females.

While the number of degrees earned by White students increased between 1996-1997 and 2006-2007, the number awarded to students from other racial/ethnic groups grew at a faster rate at each degree level. For example, the percentage of associate’s degrees awarded to students from other racial/ethnic groups increased from 23 to 31 percent. At each degree level, the number of degrees grew at a faster rate for females than for males between 1996-1997 and 2006-2007. *Source: “[Condition of Education 2009](#),” U.S. Department of Education, June 2009*

Private for-profit institutions are gaining market share. The number of associate’s degrees conferred by private for-profit institutions more than doubled between 1996-1997 and 2006-2007, from 56,600 to 117,800 degrees. For public institutions, the number of associate’s degrees increased by 22 percent (from 465,000 to 566,500 degrees) during this period; for private not-for-profit institutions, the numbers decreased by 11 percent (from 49,200 to 43,800 degrees). Due to these changes, associate’s degrees awarded by private for-profit institutions made up 16 percent of all associate’s degrees awarded in 2006-2007, up from 10 percent share in 1996-1997. *Source: “[Condition of Education 2009](#),” U.S. Department of Education, June 2009*

Community college enrollment is up with no rise in student age. The American Association of Community Colleges reported that community college enrollment increased 8-10 percent; the average age of students did not rise as it typically does during a recession. *Source: [Newsweek](#), December 15, 2008*

Demographics will continue as a driving force for development and reform of global higher education in the coming decades. In 2008, the Organization for Economic Cooperation and Development identified several key demographic trends for the period to 2030. Some of the key elements are:

- student participation will continue to expand as will higher education systems - only a few countries will see a contraction of student numbers;
- women will form the majority in student populations in most developed countries and will substantially expand their participation everywhere;
- the mix of the student population will become more varied, with greater numbers of international students, older students, part-time students and other types;
- the social base in higher education will continue to broaden, along with uncertainty about how this will affect inequities of educational opportunities between social groups;
- attitudes and policies relating to access as well as the consciousness among disadvantaged groups will change and become more central to national debates;
- the academic profession will become more internationally oriented and mobile but will still be structured in accordance with national circumstances;
- the activities and roles of the academic profession will be more diversified and specialized and subject to varied employment contracts; and

- for many developing countries the need for the ever-expanding numbers of university teachers will mean that overall qualifications, now rather low, may not improve much, and current reliance on part-time staff in many countries may continue

Source: "[*Trends in Global Higher Education: Tracking an Academic Revolution*](#)," A Report Prepared for the UNESCO 2009 World Conference in Higher Education, 2009

The United States is headed for “demographic singularity”. Management professor Nat Irvin II defines demographic singularity as a pace of change so fast that the American identity as we know it will be irreversibly altered. He puts the year for singularity at 2015, when minorities will make up 40% of the U.S. Population. *Nat Irvin II, quoted in “[*Thinking Globally, Acting Locally, Living Personally*](#),” *The Futurist*, Nov-Dev 2007, p. 57*

Empowering girls through education will improve future communities. Girls who have access to adequate secondary education are much more likely to practice family planning, according to a new report. The report also finds that education increases girls’ civic participation and makes them less likely to experience sexual harassment, to contract HIV/AIDS, or to fall victim to sexual or labor trafficking. *Source: World Trends & Forecasts, The Futurist, Jan-Feb 2008, p. 8*

Companies will see the age range of their workers span four generations. Workers over the age of 55 are expected to grow from 14% of the workforce to 19% by 2012. In less than five years, 77 million baby boomers in the United States will begin reaching the age of 65, the traditional retirement age. As a result, the idea of “retirement” will change significantly. *Source: “Working in the Future: How Today’s Trends are Shaping Tomorrow’s Jobs,” The Futurist, Nov-Dec 2005, p. 48.*

College gender gap appears to be stabilizing with one notable exception – Hispanics. *Gender Equity in Higher Education: 2010* is a follow-up to ACE’s original 2000 study and 2006 update. For the first time, several indicators suggest that the size of the gender gap in higher education may have stabilized. The distribution of enrollment and undergraduate degrees by gender has remained consistent since about 2000, with men representing 43 percent of enrollment and earning 43 percent of bachelor’s degrees.

The only group in which the size of the female majority does not yet appear to have stabilized is Hispanics: The percentage of Hispanic undergraduates aged 24 or younger who are male has declined from 45 percent in 1999–2000 to 42 percent in 2007–08. Hispanic young men also have the lowest bachelor’s degree attainment level of any group studied, at only 10 percent. Hispanic women appear to have pulled away from their male peers since the late 1980s, increasing their bachelor’s degree attainment rate while the male rate has remained flat.

Other Enrollment Findings:

- Men aged 25 or older represent just 14 percent of all undergraduates and are outnumbered two to one by women in the same age group.
- African Americans still have the largest gender gap in enrollment; 63 percent of all African American undergraduates are women.

- Among African Americans and American Indians, female undergraduates aged 25 or older outnumber women aged 24 or younger.
- Among traditional-age students who are financially dependent on their parents, multiple years of data consistently show that for each racial/ethnic group, the gender gap in enrollment disappears as family income rises.

Source: "[College Gender Gap Appears to be Stabilizing with One Notable Exception, American Council on Education Analysis Finds](#)," American Council on Education, January 26, 2010

Economic Factors

Donations to educational organizations show large decline. *Giving USA* reports, in 2008, donations to education organizations and nearly every other type of charity declined by 5.7% after adjustment for inflation (from \$314.1 billion in 2007 to \$307.7 billion in 2008). It was the steepest decline in the history of the survey, which has been conducted since 1956. The only other decline nearly as large occurred in 1974, when donations dropped by 5.4%. Researchers who compile *Giving USA* said that today's recession most resembles the one in 1974, and it took three years after that downturn ended for philanthropy to return to the same levels of donations as before the economy soured. Source: "[Giving to Colleges and Other Charities Declines Nearly 6 Percent](#)," *The Chronicle of Higher Education*, June 10, 2009

Individual giving decreased along with corporate donations and foundation grants.

Giving USA reports, in 2008, individuals donated \$229.3 billion, a decrease of 6.3 percent. Giving through bequests also dropped to 22.7 billion, a 6.4% decline. Altogether, gifts from individuals, including bequests, accounted for 82 percent of all charitable giving in 2008. Corporate donations totaled \$14.5 billion, an 8% decrease, accounting for 5 percent of all giving. Foundation grants totaled \$41.2 billion and decreased only slightly 0.8%. Grants from private, community, and operating foundations made up 13% of the total contributed to charity last year. Source: "[Giving to Colleges and Other Charities Declines Nearly 6 Percent](#)," *The Chronicle of Higher Education*, June 10, 2009

Sharp Drop Is Seen in Gifts to Colleges and Universities Gifts to colleges and universities declined almost 12 percent in the 2009 fiscal year, to \$27.85 billion, according to the Council for Aid to Education's annual survey of voluntary support of education. It was the steepest decline in the survey's 53-year history. In the last fiscal year, alumni participation declined to 10 percent from 11 percent, the lowest ever recorded in the survey, and the amount alumni contributed dropped 18 percent. In contrast, corporate support declined by less than 6 percent. According to survey director Ann Kaplan, "If historical patterns hold up, giving will rebound in fiscal 2010, and beyond. There are some new players, like two-year colleges that haven't been asking for the same kind of dollars as liberal arts colleges or universities, but they're starting to, and they have a good case." Source: "[Sharp Drop Is Seen in Gifts to Colleges and Universities](#)," *The New York Times*, February 2, 2010

Scholarships for college dwindle as providers pull back their support.

Students looking for college scholarships are going to have a harder time this year as providers, hammered by falling investment returns and declining philanthropic support, cut back. The recession has led foundations, corporations, state governments, and colleges themselves to reduce their support making it harder for families to pay for college. The result will probably be a greater role for federal aid programs in supporting students instead of private scholarship providers and state governments. *Source: “[Scholarships for College Dwindle as Providers Pull Back Their Support](#),” *The New York Times*, June 27, 2009*

More students borrow to pay for college. More students are borrowing to pay for college, and that is especially true at for-profit colleges, according to an analysis of U.S. Department of Education data. Nearly 53 percent of full-time undergraduate students borrowed money to attend college in 2007-8, compared with 49.5 percent in 2003-4, according to the Education Sector's analysis of data from the National Postsecondary Student Aid Study. The proportion of students who borrowed at public two-year institutions and private, nonprofit four-year institutions stayed about the same over that time period, while the proportion at public four-year colleges grew slightly. At for-profit institutions, 91.6 percent of students borrowed in 2007-8, up from 79.5 percent in 2003-4. *Source: “[More Students Borrow Money to Pay for College](#),” *Chronicle of Higher Education*, July 9, 2009*

Students are borrowing more and taking on riskier forms of debt than ever before. New Education Sector analysis finds college students are borrowing more and taking on riskier forms of debt than ever before. As recently as the mid-1990s, borrowing was the exception. Now it's the rule. While community college students have remained relatively debt-free—only 23 percent borrowed in 2008—this is still nearly twice the percentage who borrowed in 1993. *Source: “[Drowning in Debt: The Emerging Student Loan Crisis](#),” *Education Sector*, July 9, 2009*

Students rely on federal loans to pay rising tuition. More college students are relying on federal student loans instead of increasingly scarce private ones as tuition costs continue to rise, new data indicate. According to reports issued by the College Board, the volume of private student loans -- those not made or guaranteed by the government -- fell by 52% in the 2008-09 school year as recession-battered lenders tightened credit standards or abandoned what had been one of the fastest-growing sectors of the financial-aid market. *Source: “[Students Rely on Federal Loans to Pay Rising Tuition](#),” *The Wall Street Journal*, October 21, 2009*

Tuition costs are less at community colleges. Average annual community college tuition and fees are less than half those at public 4-year colleges and one-tenth those at private 4-year colleges and universities. *Source: “[Community Colleges: Special Supplement to the Condition of Education 2008](#),” *U.S. Department of Education*, August 2008*

Dislocated workers have a unique opportunity to take advantage of federal funding that will pay for training to acquire new job skills. Historically, unemployment benefits have paid only for the shortest-term educational programs, but benefits are now available for up to 72 weeks, and federal stimulus dollars have been made available to pay for books and tuition. Funds also may be available for rent, child care and heating assistance from county social service

programs. Source: "[Going Back to School to Get Back to Work](#)," *Community College Times*, July 5, 2009

Twin forces of global economic contraction and technological evolution are altering the outlook for American Consumers. Ten inertial realities leading into the future are as follows:

- First, the internationalization of the U.S. economy and the technologically driven restructuring of work itself have been positive developments for boosting U.S. economic productivity and GDP. But they have not been kind to the average American worker. Median income has been falling for the past 10 years, according to the U.S. Census Bureau, whose numbers reveal that incomes of middle-class Americans took a hit during the 2001 recession and never fully recovered. By 2008, median household income was \$2,100 below its 2000 level--and that was before the 2008 recession swept the U.S. and the global economies. The situation is not about to correct itself anytime soon. Because of steadily rising U.S. productivity and the off-shoring of high-tech jobs, the U.S. Bureau of Labor Statistics projects a slowing U.S. job-creation rate and little or no increase in median personal income between now and 2016.
- Second, in spite of falling household income, U.S. consumer spending has risen robustly in recent years, with personal consumption rising from 67% of GDP in 2000 to a record-high 72% in 2007-- after having averaged 63% from 1960 through the mid-1990s. "Vigorous growth in American consumption has consistently outstripped subpar gains in household income," wrote Steven Roach, chief economist for Morgan Stanley Asia, in a November 2008 *International Herald Tribune* editorial. "In the days of frothy asset markets, American consumers had no compunction about squandering their savings and spending beyond their incomes."
- Third, since 2000, easy access to low-cost credit, plus the lowest tax rates in the industrialized world, have permitted U.S. households to consume more goods and services than their European and Japanese counterparts. (For years, economists have observed that Americans were "living beyond their means.") At the same time, low interest rates on bank deposits reduced U.S. propensity to save from 3.7% of all personal income in 2000 to less than 1% in 2007. Household debt, meanwhile, hit an unprecedented 133% of disposable income by the end of 2007.
- Fourth, the sudden "evaporation" of over \$50 trillion from the world's capital supply in 2008 is widely expected to reduce the availability--and increase the cost--of both consumer and commercial credit for at least three to five years.
- Fifth, tighter government regulation of all financial markets is widely expected to curtail high-risk investing, reducing the financial service sector's ability to create new sources of credit.
- Sixth, the long postponement of infrastructure modernization and the chronic underfunding of regulatory mandates--two results of the nations suppressed tax rates and curtailed government revenues--have begun to produce growing examples of infrastructure and regulatory failures that demand immediate remediation. The next four years will see tax rates, user fees, road tolls, etc., rise at all levels of government

jurisdiction. Increased federal taxes on surplus corporate profits and capital gains--along with higher gasoline taxes, plus carbon taxes on all forms of energy consumption--will underwrite substantial public investments in new transportation, energy, and environmental infrastructure. The taxes to pay for these investments will, in turn, increase the average cost of living in America, reducing the discretionary income in the hands of U.S. consumers.

- Seventh, workforce demographers project that, from now on, there will be a growing shortage of new recruits to fill all types of skilled positions, from pediatricians to plumbers. Labor economists routinely warn that the scarcity of skilled workers will inevitably constrain U. S. economic growth. Moreover, while the intensifying competition for labor will predictably boost the wages of people with readily employable skills, it will also fuel wage inflation and increase the costs of a wide range of professional, commercial, and consumer services.
- Eighth, not only will higher taxes and the rising price of credit demand a greater share of consumer income in the years ahead, but the underlying levels of inflation are also widely expected to rise over the long term. This is because growing worldwide consumption of middle-class goods and services generates ever greater marketplace demands for basic commodities--food, fabrication materials, fuel, and water--that will increasingly outstrip available supplies. Once the recession ends, upward pressure on commodity prices will resume.
- Ninth, to offset the effects of the recession, Congress passed a \$787 billion stimulus package, including \$251 billion for infrastructure improvements--especially urban water systems, highways, mass transit, renewable-energy research and production, pollution abatement, and greenhouse-gas reduction. In addition, Congress can ultimately be expected to enact a national health-insurance system with universal standards for electronic medical record keeping.
- Increased spending on infrastructure will inevitably require higher taxes. Presidential administrations over the last three decades have trended toward sizable tax cuts, consistently asserting their desire to "give money back to the American people." In the short term, this provided Americans comparatively more money to spend on discretionary consumption. But they have enjoyed those goods and services with a hidden cost: less money for roads, law enforcement, and the whole range of vital infrastructure. Those low taxes were insufficient to pay for the government we want and infrastructure we need. We now need to rebalance our fiscal priorities.
- Tenth, from now on, Americans will be spending less on housing, cars, and designer clothing. Spreading suburban sprawl will grind to a halt. The 50-year growth of suburban sprawl was fueled by cheap land, capital, oil, and cars. The coming wave of mixed-use infill development will be the product of expensive land, capital, oil, and cars. *Source: "A Rendezvous with Austerity: American Consumers Are About to Learn New Habits," David Pearce Snyder, The Futurist, July-August 2009, pp.44-47*

Toledo Public Schools are in dire financial condition. Toledo Public Schools are facing a \$30 million dollar hole for the 2010-2011 school year. Voters rejected a levy on the May 4th ballot

that would have reduced the deficit to \$17.5 million. One item on the list of cuts is the Toledo Early College High School. *Source: [The Toledo Blade](#) , March 4, 2010, "[Toledo Public Schools income tax loses; Libbey H.S. likely to be axed](#)" [The Toledo Blade](#), May 5, 2010*

Social safety nets will get cut. Governments across the industrialized world will pare down or scrap altogether their pension and health-care programs for retirees. Younger workers will increasingly protest the higher taxes that those programs require due to greater numbers of retirees than ever before. *Source: "[Retiring Retirement](#)," [The Futurist](#), Mar-Apr 2008, p.24.*

The United States will see a shrinking labor force and growing income disparity by 2050. Both trends will affect the nation's long-term fiscal health as the economy continues to move away from manufacturing jobs and toward services and high tech occupations. Such work typically requires more expensive education that's out of reach for many working-class families. *Source: [World Trends & Forecasts](#), [The Futurist](#), July-Aug 2007, p. 9*

Phantom economic recovery exists for the middle class. For the typical American household, the Great Recession that began in late 2007 came on the heels of a less dramatic but equally unusual economic phenomenon: a Phantom Recovery. The Center's analysis of Census Bureau data finds that inflation-adjusted median household income -- arguably the best single measure of the middle class standard of living -- has remained at or below its 1999 peak in every year since then, first during the shallow recession at the start of this decade and later during the economic expansion that lasted from the end of 2001 to the end of 2007. Overall, the eight-year period from 1999 through 2007 is the longest in modern U.S. economic history in which inflation-adjusted median household income failed to surpass an earlier peak. *Source: "[The Phantom Recovery](#)," [Pew Research Center](#), March 26, 2009*

Higher Education in the U.S. is at a turning point with money, enrollment and academic effectiveness being top issues. The financial data for 2009 and 2010 make it clear: higher education in the United States is at a turning point. Enrollment demand has grown relentlessly for more than a quarter century, from 7.0 million in 1980 to 10.8 million in 2009, with no signs of stopping. Even with the substantial increases in state and federal funding for higher education, public financial support has not generally kept pace with enrollment growth and inflation. These trends have contributed to persistent increases in tuition and fees, and in some states, to subtle, less visible reductions in opportunity and quality. State support for higher education has been resilient, but inconstant. In every recession over the past 35 years, enrollments have grown, while state funding has not kept up with enrollment growth and inflation. During economic recoveries following recessions, states historically have "caught up" by providing more support. While the historical pattern provides reassurance and evidence of enduring public commitment, the current recession and a convergence of other pressures on states and the American economy have eroded the ability of states to rebuild their financial support for higher education. The resiliency of public financial support for American higher education is threatened, putting its quality and capacity at risk. The dimensions of the current financial and enrollment crisis are as follows:

- More than 5% of FY 2010 appropriations are underwritten with federal stabilization funds that in many states are exhausted, or nearly so;
- State revenues have fallen at an unprecedented rate and a recovery will, at best, take many years according to the National Association of State Budget Officers; and

- Even with recent dramatic enrollment growth, current enrollments almost surely understate student demand, with many students who would otherwise enroll deterred by tuition increases and budget driven enrollment caps and course cancellations.

But money and enrollment demand are not the only issues. Public higher education, and education at every level, must improve its effectiveness in order to help Americans meet the challenges posed by the aging of America's best-educated cohort and by a global economy where other nations are gaining on or passing the U.S. in educational attainment. *Source: "[A Critical Juncture for Higher Education in the United States](#)," Statement from State Higher Education Executive Officers, January 14, 2010*

Social and Cultural Factors

Millennials appear more alike than different from their parents' generation concerning factors important in college choice. Academic quality and several cost-related factors top the list of factors very important to both high school students and their parents in college choice. CIRP data also provide evidence of the increasing importance of social activities in students' college choice. Millennials value college most for job and career preparation, with intellectual objectives close behind. A range and variety of majors and programs, a faculty devoted to teaching, and internships and other career opportunities appeal strongly to students in the college or university they are likely to attend. *Source: "[Research Dispels Millennial Theories](#)," studentPOLL, Volume 6 Issue 2, May 2008, published by College Board and Arts & Science Group*

Millennials are really different than generations before them – confident, connected and open to change. Generations have personalities, and Millennials -- the American teens and twenty-somethings who are making the passage into adulthood at the start of a new millennium -- have begun to forge theirs: confident, self-expressive, liberal, upbeat and open to change. They are more ethnically and racially diverse than older adults. They're less religious, less likely to have served in the military, and are on track to become the most educated generation in American history. Millennials are on course to become the most educated generation in American history, a trend driven largely by the demands of a modern knowledge-based economy, but most likely accelerated in recent years by the millions of 20-somethings enrolling in graduate schools, colleges or community colleges in part because they can't find a job. Among 18 to 24 year olds, a record share -- 39.6% -- was enrolled in college as of 2008, according to census data. *Source: "[Millennials: Confident. Connected. Open to Change](#)," Pew Research Center, February 24, 2010*

Students primarily use social networking sites for socializing-communicating.

While use of social networking sites (SNS) by college bound high school students is almost universal and especially high among African Americans, students primarily use social networking sites for socializing-communicating with friends, making new friends, and learning about a variety of social events. Facebook is, by far, the social networking site of choice among this population. SNS appear to have little value as a recruitment marketing tool. SNS rank near the bottom as factors students consider very important in their college research, especially in comparison to the many other communications tools that figure prominently in college choice,

such as personal visits to a college campus and websites. The small segment of students who use SNS for their college search, use the site to determine their ability to fit in and feel comfortable at a particular college. *Source: “[Social Networking Sites and College-Bound Students](#),” studentPOLL, Volume 7 Issue 2, January 2009, published by College Board and Arts & Science Group*

Recession is having a considerable impact on high school seniors and their families. In a random national sample of high school seniors who registered and/or took the SAT, a study found that the recession is having a considerable impact on these students and their families. Nearly one-third indicated that their parents’ income had declined, 23 percent reported that their family had fallen on hard times, and one in six revealed that the current economic circumstances have forced them to change their college plans. Shifts we can expect as a result of the current recession: more students will choose public institutions and community colleges. More will live at home and commute to college. More will work part-time to pay for college. And to make college affordable, many more will require larger financial aid awards than would have been the case in flush times. Students are hedging their bets – applying to several schools, searching for value, and hoping to put themselves in a position to have more admission and financial aid offers that can be weighed against each other for the best outcome. The time when affordability will become a defining enrollment issue may have arrived. *Source: “[The Effects of the Current Recession on the Financial Circumstances and College Plans of High School Seniors and Their Families](#),” studentPOLL, Special Edition, April 2009, published by College Board and Arts & Science Group*

Homeschooling is increasing in the U.S. In the spring of 2007, about 1.5 million, or 2.9 percent, of all school-age children in the United States were homeschooled, up from 850,000 (1.7 percent) in 1999 and 1.1 million (2.2 percent) in 2003. The most common reason parents gave as their most important for homeschooling their children in 2007 was a desire to provide religious or moral instruction (36%), followed by a concern about school environment (21 percent), dissatisfaction with academic instruction (17 percent) and “other reasons” (14 percent). *Source: “[The Condition of Education 2009](#),” U.S. Department of Education, June 2009*

Majority of adult Americans now have broadband internet connections. An April 2009 survey by the Pew Research Center’s Internet & American Life Project shows 63% of adult Americans now have broadband internet connections at home, a 15% increase from a year earlier. April’s level of high-speed adoption represents a significant jump from figures gathered by the Project since the end of 2007 (54%). The growth in home broadband adoption occurred even though survey respondents reported paying more for broadband compared to May 2008. Last year, the average monthly bill for broadband internet service at home was \$34.50, a figure that stands at \$39.00 in April 2009. *Source: “[Home Broadband Adoption 2009](#),” published by Pew Internet & American Life Project, June 2009*

Mobile connectivity is now a powerful differentiator among technology users. Thirty-nine percent of Americans have positive and improving attitudes about their mobile communication devices, which in turn draw them further into engagement with digital resources – on both wireless and wireline platforms. Mobile connectivity is now a powerful differentiator among technology users. Those who plug into the information and communications world while on-the-

go are notably more active in many facets of digital life than those who use wires to jack into the internet and the 14% of Americans who are off the grid entirely.

- 8% of adults use mobile devices and broadband platforms for continual information exchange to collaborate with their social networks
- 7% of adults actively use mobile devices and social networking tools, yet are ambivalent about all the connectivity
- 8% of Americans find mobility lighting their information pathways, but have comparatively few tech assets at home
- 16% of adults are active conduits of content and information for either fun or for personal productivity
- 61% are anchored to stationary media; though many have broadband and cell phones, coping with access is often too much for them

Source: "[The Mobile Difference](#)," published by Pew Internet & American Life Project, March 2009

An increasing percentage of older generations are now online doing more online activities.

Over half of the adult internet population is between 18 and 44 years old. But larger percentages of older generations are online now than in the past and they are doing more activities online, according to surveys taken from 2006-2008. Contrary to the image of Generation Y as the "Net Generation," internet users in their 20s do not dominate every aspect of online life. Generation X is the most likely group to bank, shop, and look for health information online. Boomers are just as likely as Generation Y to make travel reservations online. And even Silent Generation internet users are competitive when it comes to email (although teens might point out that this is proof that email is for old people). Source: "[Generations Online in 2009](#)," published by Pew Internet & American Life Project, January 2009

The internet and cell phones have become central components of modern family life.

Among all household types, the traditional nuclear family has the highest rate of technology usage and ownership. A national survey has found that households with a married couple and minor children are more likely than other household types -- such as single adults, homes with unrelated adults, or couples without children -- to have cell phones and use the internet. The survey shows that these high rates of technology ownership affect family life. In particular, cell phones allow family members to stay more regularly in touch even when they are not physically together. Moreover, many members of married-with-children households view material online together. Source: "[Networked Families](#)," published by Pew Internet & American Life Project, October 2008

The majority of employed adults (62%) use the internet or email at their job, and many have cell phones and Blackberries that keep them connected even when they are not at work. Working Americans express mixed views about the impact of technology on their work lives. On the one hand, they cite the benefits of increased connectivity and flexibility that the internet and all of their various gadgets afford them at work. On the other hand, many workers say these tools have added stress and new demands to their lives. One of the major impacts of the internet and cell phones is that they have enabled more people to do work at least occasionally from home. Some 45% of employed Americans report doing at least some work from home and

18% of working Americans say they do job-related tasks at home almost daily. *Source: “[Networked Workers](#),” published by Pew Internet & American Life Project, September 2008*

Teens write a lot, but they do not think of their emails, instant and text messages as writing.

This disconnect matters because teens believe good writing is an essential skill for success and that more writing instruction at school would help them. *Source: “[Writing, Technology and Teens](#),” published by Pew Internet & American Life Project, April 2008*

Content creation by teenagers continues to grow. Sixty-four percent of online teenagers ages 12 to 17 engage in at least one type of content creation, up from 57% of online teens in 2004. Girls continue to dominate most elements of content creation. Some 35% of all teen girls blog compared with 20% of online boys, and 54% of wired girls post photos online compared with 40% of online boys. Boys, however, do dominate one area - posting of video content online. Online teen boys are nearly twice as likely as online girls (19% vs. 10%) to have posted a video online somewhere where someone else could see it.

The survey found that content creation is not just about sharing creative output; it is also about participating in conversations fueled by that content. Nearly half (47%) of online teens have posted photos where others can see them, and 89% of those teens who post photos say that people comment on the images at least "some of the time." However, many teen content creators do not simply plaster their creative endeavors on the Web for anyone to view; many teens limit access to content that they share.

There is a subset of teens who are super-communicators -- teens who have a host of technology options for dealing with family and friends, including traditional landline phones, cell phones, texting, social network sites, instant messaging, and email. They represent about 28% of the entire teen population and they are more likely to be older girls. *Source: “[Teens and Social Media](#),” published by Pew Internet & American Life Project, December 2007*

Adults seeking higher education often are career re-inventors. Nationally, nearly 4 out of 10 adults are seeking higher education, and of those, a third are “career re-inventors” looking to pursue a longstanding interest, according to a national survey this year by the Career College Association in Washington. Career colleges have seen average annual growth of about 10 percent in recent years. *Source: “[When Careers Need Reinvention](#),” *Christian Science Monitor*, July 7, 2009*

For the First Global generation, the American Dream is shifting away from materialism toward the search for inner tranquility – a tendency to look for a deeper meaning from life.

According to pollster John Zogby, First Globals, formerly referred to as Millennials, aged 18 to 29, care about more than just themselves, they celebrate the fact that they live in a world dominated by diversity, think and buy globally and are sensitized to global issues from human rights to AIDS and poverty, are more devoted than any other age group to finding common ground on tough social issues, and for them, just about everything is in the public domain, up to and including intimate details of their lives. *Source: [The Emergence of a Global Generation](#), *The Futurist*, January-February 2009*

Important social trends that will unfold over the next 20 years that drive business futures:

- The emergence of China as the world's largest economic power – doing business with China requires a higher level of understanding of the Chinese culture than most American currently possess
- Global demographic and migration shifts – Population growth trend in the United States while Japan and the European Union are showing population decreases, resulting in a shift in the global trade balance.
- Energy and water shortages
- Managing waste, reusing products
- Falling educational standards, less-skilled thought leaders
- Intensification of brand relationships
- Instant gratification shopping
- On-demand media
- Customization, personalization and community experiences
- Youth rules

Source: "Ten Forces Driving Business Futures," Michael Richarme, The Futurist, July-August 2009, pp.40-43

The U.S. is moving toward a matriarchal economy. The marriage rate in this country per 1,000 people is the lowest it has been in 50 years. Single women are the fastest growing segment of the home-buying industry. What we are all seeing is a movement much larger and more important than the ratio of men to women in higher education. The U.S. is in the middle of the largest socioeconomic change since World War II—the creation of a matriarchal economy. Women now purchase or influence the purchase of 80% of all goods and services. *Source: "[Society Will Pay a Big Price for All of Our 'Lost Boys'](#)," James W. Bovinet, Wall Street Journal, November 10, 2009*

A digital divide separates socioeconomic classes. Many educators perceive a digital divide between members of different socioeconomic classes. Scalability – technology becoming cheaper and more available in the future – can help solve that. When talking about the digital divide, we're not just talking about access to equipment, but also the intellectual capacity, the training to use it, the ability to understand the need for it, as well as its importance. Cultural differences are also a huge factor. These factors can affect how rapidly technology is adopted and result in early adopters and late adopters. As education becomes increasingly digitalized, late adoption could have consequences in terms of educational quality. *Source: "[Remaking Education for a New Century](#)," The Futurist, January-February 2010*

Young people will read more and the old will play more video games. The 2007 American Time Use survey from the Bureau of Labor Statistics revealed some surprising findings. In 2007, adults aged 75 and older spent nearly twice as much time playing video games (about 20 minutes) as they did in 2006. Teens aged 15-19 spent twice as much time reading as they did before (about 14 minutes) and less time using a computer for games or casual surfing. *Source: World Trends and Forecasts, The Futurist, Nov-Dec 2008, p.14*

Self-reliance and cooperation will become prevalent societal values as Generation X and Generation Y replace the baby-boom generation. Gen Xers and Gen Yers are highly

entrepreneurial. They are also very socially aware. Societies can expect more small-business activity, more social activism, and greater outreach across cultures and political parties. *Source: "Trends Shaping Tomorrow's World, Part One," The Futurist, Mar-Apr 2008, p. 42*

American adults are delaying the future. Forty-one percent of U.S. adults say they are delaying major life decisions, such as buying a home, marrying, or even undergoing a medical procedure, according to a recent Harris Poll. The main reason cited is a lack of personal savings, along with concerns about the U.S. economy's overall future. *Source: Tomorrow in Brief, The Futurist, July-Aug 2008, p. 2*

Communications systems are altering human behavior. The constant availability of media invites abuse, says journalism professor Michael Bugeja. People with access to laptop computers or cell phones are more likely to use those devices at inappropriate times and at inappropriate moments, such as logging onto networking sites during a university lecture. As such techno-abuses become commonplace, they also become more acceptable. The end result is a more distracted world. *Source: World Trends & Forecasts, The Futurist, Jan-Feb 2007. P. 12*

Targeted college campus violence, from serious assaults to the mass shootings, is up sharply over the last two decades, according to a study issued Friday by the FBI, Secret Service, and Education Department. However, the increases in violence are consistent with the overall growth in enrollment during the time period examined. Targeted violence is defined as cases where attackers select a victim beforehand or randomly choose victims because they fit some predetermined profile or relationship. It excludes violence that breaks out spontaneously, such as during an argument. The study found that:

- Factors relating to an intimate relationship were a motivating or triggering factor in a third of attacks and academic stress or failure was a factor in one out of 10 attacks.
- Sixty percent of those who engaged in targeted campus violence were current or former students at the school where the violence took place.
- Firearms were used in more than half the incidents and knives or weapons with a blade were used in over 20 percent.
- Over 90 percent of those who committed such attacks were male.
- In nearly three-quarters of the incidents studied, the attacker appeared to have targeted one or more specifically named individuals. But sometimes it appeared that random people were targeted along with specific victims.

Sources: "[Gov't report sees increase in campus violence](#)", Associated Press, April 16, 2010, "[Campus Attacks Targeted Violence Affecting Institutions of Higher Education](#)", United States Secret Service, United States Department of Education, Federal Bureau of Investigation, April 2010.

Technological Factors

Emerging technologies that will likely enter mainstream use in learning-focused organizations in the next five years (2010-2015): mobile computing, open content, electronic books, simple augmented reality, gesture-based computing, and visual data analysis. On the near-term horizon, within the next twelve months, are mobile computing and open content.

- *Mobile computing*, use of the network-capable devices students are already carrying, is already established on many campuses, although before we see widespread use, concerns about privacy, classroom management, and access will need to be addressed. At the same time, the opportunity is great; virtually all higher education students carry some form of mobile device, and the cellular network that supports their connectivity continues to grow. An increasing number of faculty and instructional technology staff are experimenting with the possibilities for collaboration and communication offered by mobile computing. Devices from smart phones to netbooks are portable tools for productivity, learning, and communication, offering an increasing range of activities fully supported by applications designed especially for mobiles.
- *Open content*, also expected to reach mainstream use in the next twelve months, is the current form of a movement that began nearly a decade ago, when schools like MIT began to make their course content freely available. Today, there is a tremendous variety of open content, and in many parts of the world, open content represents a profound shift in the way students study and learn. Far more than a collection of free online course materials, the open content movement is a response to the rising costs of education, the desire for access to learning in areas where such access is difficult, and an expression of student choice about when and how to learn.

The second adoption horizon is set two to three years out, where we will begin to see widespread adoptions of two well-established technologies that have taken off by making use of the global cellular networks — *electronic books* and *simple augmented reality*. Both of these technologies are entering the mainstream of popular culture; both are already used in practice at a surprising number of campuses; and both are expected to see much broader use across academia over the next two to three years.

- *Electronic books* have been available in some form for nearly four decades, but the past twelve months have seen a dramatic upswing in their acceptance and use. Convenient and capable electronic reading devices combine the activities of acquiring, storing, reading, and annotating digital books, making it very easy to collect and carry hundreds of volumes in a space smaller than a single paperback book. Already in the mainstream of consumer use, electronic books are appearing on campuses with increasing frequency. Thanks to a number of pilot programs, much is already known about student preferences with regards to the various platforms available. Electronic books promise to reduce costs, save students from carrying pounds of textbooks, and contribute to the environmental efforts of paper conscious campuses.

- *Simple augmented reality* refers to the shift that has made augmented reality accessible to almost anyone. Augmented reality used to require specialized equipment, none of which was very portable. Today, applications for laptops and smart phones overlay digital information onto the physical world quickly and easily. While still two to three years away from widespread use on campuses, augmented reality is establishing a foothold in the consumer sector, and in a form much easier to access than originally envisioned.

On the far-term horizon, set at four to five years away for widespread adoption, but clearly already in use in some quarters, are *gesture-based computing* and *visual data analysis*. Neither of these two technologies is yet commonly found in campus settings, but the high level of interest and the tremendous amounts of research in both areas indicate that they are worth following closely.

- *Gesture-based computing* is already strong in the consumer market and we are seeing a growing number of prototypical applications for training, research, and study, though this technology is still some time away from common educational use. Devices that are controlled by natural movements of the finger, hand, arm, and body are becoming more common. Game companies in particular are exploring the potential offered by consoles that require no handheld controller, but instead recognize and interpret body motions. As we work with devices that react to us instead of requiring us to learn to work with them, our understanding of what it means to interact with computers is beginning to change.
- *Visual data analysis*, a way of discovering and understanding patterns in large data sets via visual interpretation, is currently used in the scientific analysis of complex processes. As the tools to interpret and display data have become more sophisticated, models can be manipulated in real time and researchers are able to navigate and explore data in ways that were not possible previously. Visual data analysis is an emerging field, a blend of statistics, data mining, and visualization that promises to make it possible for anyone to sift through, display, and understand complex concepts and relationships.

Research indicates that all six of these technologies, taken together, will have a significant impact on learning-focused organizations within the next five years.

Source: [*The Horizon Report – 2010*](#) published by *The New Media Consortium and Educause Learning Initiative, 2010*

The key drivers of technology adoptions for the period 2010 through 2015;

- *The abundance of resources and relationships made easily accessible via the Internet is increasingly challenging us to revisit our roles as educators in sense-making, coaching, and credentialing.* Institutions must consider the unique value that each adds to a world in which information is everywhere. In such a world, sense-making and the ability to assess the credibility of information are paramount. Mentoring and preparing students for the world in which they will live, is again in the forefront. Universities have been seen as the gold standard for educational credentialing, but emerging certification programs are now entering that market.

- *People expect to be able to work, learn, and study whenever and wherever they want to.* Life in an increasingly busy world where learners must balance demands from home, work, school, and family poses a host of logistical challenges with which today's ever more mobile students must cope. A faster approach is often perceived as a better approach, and as such people want easy and timely access not only to the information on the network, but to their social networks that can help them to interpret it and maximize its value. The implications for informal learning are profound, as are the notions of "just-in-time" learning and "found" learning, both ways of maximizing the impact of learning by ensuring it is timely and efficient.
- *The technologies we use are increasingly cloud-based, and our notions of IT support are decentralized.* The continuing acceptance and adoption of cloud-based applications and services is changing not only the ways we configure and use software and file storage, but even how we conceptualize those functions. It does not matter where our work is stored; what matters is that our information is accessible no matter where we are or what device we choose to use. Globally, in huge numbers, we are growing used to a model of browser-based software that is device-independent. While some challenges still remain, specifically with notions of privacy and control, the promise of significant cost savings is an important driver in the search for solutions.
- *The work of students is increasingly seen as collaborative by nature, and there is more cross campus collaboration between departments.* While this trend is not as widespread as the others listed here, where schools have created a climate in which students, their peers, and their teachers are all working towards the same goals, where research is something open even to first year students, the results have shown promise. Increasingly, both students and their professors see the challenges facing the world as multidisciplinary, and the need for collaboration great. Over the past few years, the emergence of a raft of new (and often free) tools has made collaboration easier than at any other time in history.

Source: [*The Horizon Report – 2010*](#) published by *The New Media Consortium and Educause Learning Initiative, 2010*

Critical challenges in 2010 ranked as most likely to have a significant impact on teaching, learning and creativity in the coming years are as follows:

- *The role of the academy — and the way we prepare students for their future lives — is changing.* In a 2007 report, the American Association of Colleges and Universities recommended strongly that emerging technologies be employed by students in order for them to gain experience in "research, experimentation, problem-based learning, and other forms of creative work," particularly in their chosen fields of study. It is incumbent upon the academy to adapt teaching and learning practices to meet the needs of today's learners; to emphasize critical inquiry and mental flexibility, and provide students with necessary tools for those tasks; to connect learners to broad social issues through civic engagement; and to encourage them to apply their learning to solve large-scale complex problems.
- *New scholarly forms of authoring, publishing, and researching continue to emerge but appropriate metrics for evaluating them increasingly and far too often lag behind.* Citation-based metrics, to pick one example, are hard to apply to research based in social media. New forms of peer review and approval, such as reader ratings, inclusion in and mention by influential blogs, tagging, incoming links, and re-tweeting, are arising from

the natural actions of the global community of educators, with increasingly relevant and interesting results. These forms of scholarly corroboration are not yet well understood by mainstream faculty and academic decision makers, creating a gap between what is possible and what is acceptable.

- *Digital media literacy continues its rise in importance as a key skill in every discipline and profession.* The challenge is due to the fact that despite the widespread agreement on its importance, training in digital literacy skills and techniques is rare in any discipline, and especially rare in teacher education programs. As faculty and instructors begin to realize that they are limiting their students by not helping them to develop and use digital media literacy skills across the curriculum, the lack of formal training is being offset through professional development or informal learning, but we are far from seeing digital media literacy as a norm. This reality is exacerbated by the fact that as technology continues to evolve, digital literacy must necessarily be less about tools and more about ways of thinking and seeing, and of crafting narrative. That is why skills and standards based on tools and platforms have proven to be somewhat ephemeral and difficult to sustain.
- *Institutions increasingly focus more narrowly on key goals, as a result of shrinking budgets in the present economic climate.* Across the board, institutions are looking for ways to control costs while still providing a high quality of service. Schools are challenged by the need to support a steady — or growing — number of students with fewer resources and staff than before. In this atmosphere, it is critical for information and media professionals to emphasize the importance of continuing research into emerging technologies as a means to achieve key institutional goals. As one example, knowing the facts about shifting server- and network-intensive infrastructure, such as email or media streaming, off campus might present the opportunity to generate considerable annual savings. These trends and challenges are having a profound effect on the way we experiment with, adopt, and use emerging technologies

Source: [The Horizon Report – 2010](#) published by The New Media Consortium and Educause Learning Initiative, 2010

Emerging technologies that will likely enter mainstream use in learning-focused organizations in the next five years (2009-2014): mobiles, cloud computing, geo-everything, personal web, semantic-aware applications, and smart objects. *Mobiles* and *cloud computing* (the unifying technology supporting grassroots video, collaboration webs, and social operating systems) are emerging technologies with a first adoption horizon within the next year. Both of these are already well established on many campuses – and still more organizations have plans in place to make use of these technologies in the coming months. *Geo-everything* and the *personal web* with an adoption horizon of two to three years are already being applied by institutions at the leading edge of technology. All four topics mentioned are already common in other sectors, including entertainment, commerce and the world of work. *Semantic-aware* applications and *smart objects* have an adoption horizon of four or five years. These are not yet commonly found in an educational context, although research is being conducted in both areas and the rate of development seems to indicate that these topics are well worth watching. Source: “[The Horizon Report – 2009](#),” published by The New Media Consortium and Educause Learning Initiative, 2009

The top trends 2009 affecting the areas of teaching, learning and creative expression in priority order are:

- *Increasing globalization continues to affect the way we work, collaborate and communicate.* Information technologies are having significant impact on how people work, play, gain information, and collaborate. Increasingly, those who use technology in ways to expand their global connections are more likely to advance, while those who do not will find themselves on the sidelines. With the growing availability of tools to connect learners and scholars all over the world – online collaborative workplaces, social networking tools, mobiles, voice-over-IP, and more – teaching and scholarship are transcending traditional borders more and more all the time.
- *The notion of collective intelligence is redefining how we think about ambiguity and imprecision.* Collective intelligence may give rise to multiple answers, all equally correct, to problems. The notions of collective intelligence and mass amateurization are redefining scholarship as we grapple with issues of top-down control and grassroots scholarship. Today's learners want to be active participants in the learning process – not mere listeners; they have a need to control their environments, and they are used to easy access to the staggering amount of content and knowledge available at their fingertips.
- *Experience with and affinity for games as learning tools is an increasingly universal characteristic among those entering higher education and the workforce.* A recent [survey](#) by the Pew Internet and American Life Project found that massively multiplayer and other online game experience is extremely common among young people, is rich and varied, and that games offer opportunity for increased social interaction and civic engagement among this group. The success of game-based learning strategies owes to active participation and interaction being at the center of the experience, and signals that current educational methods are not engaging students enough.
- *Visualization tools are making information more meaningful and insights more intuitive.* As tools of this nature continue to be developed and used, visual literacy will become an increasingly important skill in decoding, encoding, and determining credibility and authenticity of data. Visual literacy must be formally taught, but is an evolving field now.
- *As more than one billion phones are produced each year, mobile phones are being enhanced from unprecedented innovation, driven by global competition.* New capabilities in terms of hardware and software are turning mobiles into indispensable tools. Third-party applications, now available on several models of mobile devices, expand their utility even further. This trend will continue to impact the ways we communicate and view computing and networked resources.

“[The Horizon Report – 2009](#),” published by The New Media Consortium and Educause Learning Initiative, 2009

Critical challenges in 2009 ranked as most likely to have a significant impact on teaching, learning and creativity in the coming years are as follows:

- *There is a growing need for formal instruction in key new skills, including information literacy, visual literacy, and technological literacy.* The skills involved in writing and research have changed from those required even a few years ago. Students need to be technologically adept, to be able to collaborate with peers all over the world, to understand basic content and media design, and to understand the relationship between the apparent function and underlying code in the applications they use daily.

- *Students are different, but a lot of educational material is not.* Schools are still using materials developed decades ago, but today’s students come to school with very different experiences than those 20 or 30 years ago, and think and work very differently as well. Institutions need to adapt to current student needs and identify new learning models that are engaging to younger generations. Assessment, likewise, has not kept pace with new modes of working, and must change along with teaching methods, tools, and materials.
- *Significant shifts are taking place in the ways scholarship and research are conducted, and there is a need for innovation and leadership at all levels of the academy.* Academic review and rewards are out of sync with the practice of scholarship. Clear approaches to assessing emerging forms of scholarly practice are needed for tenure and promotion. Students who are living and learning with technologies that generate dynamic forms of content may find the current formalism to be static and “dead” as a way of collecting, analyzing, and sharing results.
- *We are expected, especially in public education, to measure and prove through formal assessment that our students are learning.* Data collection and mining of student information systems for such evidence is being considered as a component of accreditation, and institutions increasingly are expected to collect, manage, sort, and retrieve an expanding mountain of data related to not only learning, but the entire spectrum of their activities. Current systems are not capable of managing and interpreting real time information flows on the scale that is anticipated.
- *Higher education is facing a growing expectation to make use of and deliver services, content and media to mobile devices.* As new devices continue to make content almost as easy to access and view on a mobile as on a computer, and as ever more engaging applications take advantage of new interface technologies like accelerometers and multi-touch screens, the applications for mobiles continue to grow. This is more than merely an expectation to provide content: this is an opportunity for higher education to reach its constituents in new and compelling ways, in addition to the obvious anytime, anywhere benefits of these ubiquitous devices.

“[The Horizon Report – 2009](#),” published by The New Media Consortium and Educause Learning Initiative, 2009

Top 10 IT Issues 2009

The top 10 issues institutions identified by IT leaders that must be resolved for strategic success include:

- Funding IT
- Administrative/ERP Information Systems
- Security
- Infrastructure / Cyber-infrastructure
- Teaching & Learning with Technology
- Identity/Access Management
- Governance, Organization, Leadership
- Disaster Recovery/Business Continuity
- Agility, Adaptability, and Responsiveness
- Learning Management Systems

In the ten years that the Educause Current Issues Survey was conducted, three issues have held the number one spot: Funding IT has been the #1 issue six times; Administrative/ERP Information

Systems and Security have each held the top spot twice. Since 2003, these three issues have held the top three spots, in various ranking order. The article contains a listing of critical questions for each of the 10 issues for institutional self-assessment. *Source: “[Top 10 IT Issues 2009](#),” *Educause Review*, July/August 2009*

Top 10 IT Issues 2008

- Security
- Administrative/ERP Information Systems
- Funding IT
- Infrastructure
- Identity/Access Management
- Disaster Recovery/Business Continuity
- Governance, Organization, and Leadership
- Change Management
- E-Learning/Distributed Teaching and Learning
- Staffing/HR Management/Training

The top three issues, security, administrative/ERP information systems and funding IT have been the same for the last six years, with occasional shifts between first, second and third ranking. The article contains a listing of critical questions for each of the 10 issues for institutional self-assessment. *Source: “[Top 10 IT Issues 2008](#),” *Educause Review*, May/June 2008*

Major tech advances are expected as the phone becomes a primary device for online access, voice-recognition improves, artificial and virtual reality become more embedded in everyday life, and the architecture of the internet itself improves. The key findings on the survey of internet leaders, activists and analysts by the Pew Internet & American Life Project that asked respondents to assess predictions about technology and its roles in the year 2020 include the following:

- The mobile device will be the primary connection tool to the internet for most people in the world in 2020.
- The transparency of people and organizations will increase, but that will not necessarily yield more personal integrity, social tolerance, or forgiveness.
- Voice recognition and touch user-interfaces with the internet will be more prevalent and accepted by 2020.
- Those working to enforce intellectual property law and copyright protection will remain in a continuing arms race with the system hackers who will find ways to copy and share content without payment.
- The divisions between personal time and work time and between physical and virtual reality will be further erased for everyone who is connected, and the results will be mixed in their impact on basic social relations.
- Next-generation engineering of the network to improve the current internet architecture is more likely than an effort to rebuild the architecture from scratch.

Source: “[The Future of Internet III](#),” published by Pew Internet & American Life Project, December 2008

Cyber-learning has the potential to transform education throughout a lifetime, enabling customized interaction with diverse learning materials on any topic and supporting education at any age. Cyber-learning – the use of networked computing and communications technologies to support learning – offers new learning and educational approaches and the possibility of redistributing learning experiences over time and space, beyond the classroom and throughout a lifetime. Several factors have come together to open opportunities for cyber-learning. Web technologies enable people to share, access, publish, and learn from online content and software across the globe. Content is no longer limited to the books, filmstrips and videos associated with classroom instruction; networked content today provides a rich immersive learning environment incorporating accessible data using colorful visualizations, animated graphics, and interactive applications. Alongside these technology improvements, “Open educational resources” offer learning content and software tools that support search, organization, interaction and distribution of materials. Private companies are investing in projects to make pervasive learning technologies more affordable and accessible. The global scope of networked educational materials, combined with “recommended engine” software, helps individuals find special, niche content that appeals to their needs and interests. New models of remote data and application storage combined with broadband network access allow wireless, mobile computing, not just with laptop computers but also with cellular phones. Internet-telephony, videoconferencing, screen sharing, remote collaboration technologies, and immersive graphical environments make distributed collaboration and interaction much richer and more realistic. Even though schools have not yet fully joined this vibrant, digital world, information and communications technologies are deeply entwined in the lives of young learners. Cyber-learning thus offers a receptive audience a mix of diverse content via the combined technological capabilities of the internet, high performance computing, advanced networking, in-home electronics, and mobile communications. Given today’s climate stated above, the NSF Task Force on Cyber-learning believes the window of opportunity is now open to impact the problem of insufficient knowledge and understanding about science and technology across our population. Their recommendations provide an initial strategy and opportunities including resources to create a cyber-learning infrastructure. *Source: “[Fostering Learning in the Networked World: The Cyber-learning Opportunity and Challenge](#),” Report of the National Science Foundation Task Force on Cyber-learning, June 2008*

“Serious Gaming” will help train tomorrow’s health workers. Health-related computer games represent 20% of the “serious game” market-video games used for training and other no-nonsense purposes. The games could help train and evaluate new recruits faster, even in the field, and enable students to bypass classrooms. Another possibility is using video games to train patients to care for themselves. *Source: “Virtual Health,” The Futurist, Sep-Oct 2008, p.61.*

Bio-violence will become a greater threat as the technology becomes more accessible. In the next decade, biological technologies that were once at the farthest frontiers of science will become available to anyone with a modicum of scientific training. Emerging scientific disciplines (notable genomics, nanotechnology, and other microsciences) could pave the way for a bioattack. Bacteria and viruses could be altered to increase their lethality or to evade antibiotic treatment. Also, diseases once thought to be eradicated could be resynthesized, enabling them to spread to new regions. *Source: “Bioviolence: A Growing Threat,” The Futurist, May-June 2008, p. 25 et seq.*

Top Tech Trends from the American Library Association include the recent explosion of discovery systems featuring aggregate indexes of subscriptions and local content; use of the concept “user experience” in new design of technology-driven services; change of patron expectations as they accomplish an increasing number of daily tasks on mobile devices; augmented reality—“the combination of the real and virtual... in real time and in a 3-D nature”; coming adoption of HTML 5 and CSS 3 may jumpstart development of mobile-optimized web portals; reinvention of the book. Source: “[ALA 2010 Midwinter Meeting: Top Tech Trends Panel Focuses on End Users and Ebooks](#),” *Library Journal*, January 19, 2010

Political and Governmental Factors

State Level

Ohio adopts Strategic Plan for Higher Education. In 2008, Ohio adopted a 10 year strategic plan for Higher Education. The goal of the plan is “to raise the educational attainment of Ohio each year, and to close the gap between Ohio and competitor states and nations.” According to the plan, accomplishing the goal is dependent on three things: graduating more students, keeping Ohio graduates in Ohio after graduation, and attracting degree holders from out of state to Ohio. Success will be measured through a set of accountability measures designed to monitor progress toward achievement of access, quality, affordability/efficiency, and economic leadership goals. Source: “[Strategic Plan for Higher Education 2008-2017](#),” *Ohio Board of Regents*, March 31, 2008

Ohio to participate in the Common Core State Standards Initiative. Ohio is one of 48 states that have agreed in principle to develop a set of rigorous criteria -- the Common Core State Standards Initiative -- designed to prepare high school graduates for college and the workforce. The Council of Chief State School Officers, working with the National Governor’s Association, released common standards for core curriculums in mathematics, reading and writing that could create a set of widely embraced national (but not federal) standards for what high school students need to know to be “college ready” or to have the skills to enter the workforce. As part of the economic stimulus package, \$350 million has been set aside for states to develop new tests and other measures tied to the Common Standards Initiative. The next step is to “back map” the standards down through secondary and elementary school grades, so that teachers in various grades know what they need to do to keep their students on track to meet the standards by the time they near high school graduation - and students can tell at various steps along the way whether they are on track. Source: “[Defining 'College Ready', Nationally](#),” *Inside Higher Education*, September 21, 2009

State budget woes result in one of the worst budgets in 80 years.

The FY2010-2011 state operating budget, one of the worst budgets in 80 years, included approximately \$50.5 billion in general revenue funds, \$2 billion less than the general revenue funds spending in the FY2008-2009 biennium. A new revenue stratum, the installation of video lottery terminals at seven Ohio race tracks, was included to offset approximately \$851 million of the State’s \$3.2 billion deficit. Items of interest within the Budget include:

- \$170 million cut to Ohio Board of Regents line items
- Institutions will be able to increase tuition by 3.5 percent each year in the biennium

- Ohio College Opportunity Grant (OCOG) funding was cut \$95 million in FY2010 and \$129 million in FY2011. This leaves OCOG funding levels at \$95 million in FY 2010 and \$76 million in FY2011. In addition, significant changes to the OCOG program will occur to create a performance based aid program
- College Readiness and Access funding (which includes OCAN) was eliminated
- Co-op and internship program funding was eliminated
- Boards of Trustees at public colleges and universities are now able to implement staff furloughs if deemed necessary

Since the passage of the budget, the Supreme Court of Ohio has ruled that the planned implementation of video lottery terminals is subject to referendum and cannot proceed as planned.

Ohio must make tough decisions to emerge a winner from the current recession. Ohio must make tough decisions to reduce the number of its school districts, get a handle on the cost of government, and position itself at the forefront of green technology if it hopes to emerge from the recession as an economic force, concludes a study released by the Brookings Institution and the Greater Ohio Policy Center. Highlights from the study recommendations include: Renew the Third frontier program targeting investment in high-tech and biomedical research and product development; reduce the number of Ohio's 613 school districts by at least one-third, and substantially increase the number of Ohioans with non-degree work force certificates on long-term career paths. *Source: "[Study finds Ohio must make tough decisions to emerge a winner from current recession](#)," The Toledo Blade, February 22, 2010, [Restoring Prosperity: Transforming Ohio's Communities for the Next Economy](#), The Brookings Institution and the Greater Ohio Policy Center, 2010*

Pro-solar bills on horizon in Ohio but critics say state must become more competitive. Toledo and other Ohio cities have lost out on solar manufacturing jobs for the last decade because of a failure by state officials to attract companies with tax incentives or create a viable market for solar panels. Since 2007 alone, the year Newsweek magazine dubbed Toledo a solar "hot spot," thousands of those jobs have gone to states where companies were enticed by a mixture of tax credits, grants, and other incentives. In coming weeks, bills will be up for a vote in both chambers of the Ohio General Assembly to eliminate a tangible personal property tax on solar companies. In May, voters decided to extend the Ohio Third Frontier program, a bond package that funds high-tech ventures and has contributed about \$40 million to northwest Ohio projects since 2003. Removal of the property tax on solar companies and the renewal of Ohio's Third Frontier effort are crucial for economic development progress this year. *Source: "[Pro-solar Bills on the Horizon](#)," The Toledo Blade, March 10, 2010*

The Ohio High School Core Curriculum legislation fosters dual enrollment, requires standards for Advanced Placement scores, and phases out subsidy for academic remediation conducted at university main campuses. S.B. 311 affects postsecondary education by:

- Requiring each school district (including each joint vocational district), community school, and chartered nonpublic high school to offer students in grades 9 to 12 the opportunity to participate in a dual enrollment program to earn college credit.
- Directing the Articulation and Transfer Advisory Council of the Ohio Board of Regents to recommend standards for awarding college credit toward degree requirements based on

students' scores on Advanced Placement exams and requires all public institutions of higher education to comply with the standards upon their adoption by the Board.

- Beginning with the 2014-2015 academic year, phases out the state operating subsidies that the Ohio Board of Regents may pay to most state universities for academic remedial or developmental courses offered at their main campuses.

Source: [Ohio High School Core - S.B.311](#), passed by the Ohio 126th General Assembly, December, 2007

New funding model for Ohio Community Colleges is outcomes based -- focusing on enrollment and completion. The Ohio Board of Regents adopted a funding model where subsidy will be based on a combination of enrollment and completion oriented indicators called “Success Points” upon recommendation of the Higher Education Funding Council. Source: *Ohio Board of Regents, Higher Education Funding Study Council, “[Study on Providing Incentives for Certificate and Associate Degrees](#)”, April 15, 2006*

Textbook Affordability Act was introduced in the Ohio House of Representatives in March 2010. A summary of what the bill proposes is below.

- No bookstore shall bundle, or order and sell, bundled textbooks and supplemental learning materials
- No professor, faculty member or other employee of a state institution of higher education shall profit from the sale of textbooks and other learning materials used in a class taught by that person – other than royalties from authorship.
- Each bookstore shall post the wholesale cost of each new textbook sold at the bookstore.
- No bookstore shall sell used textbooks or learning materials for less than half the price the student originally paid to purchase them.
- The Board of Trustees of a state institution of higher education shall provide to the Chancellor a list of each textbook used at the institution each academic year and its cost. The Chancellor and the Board of Regents shall meet annually to review these reports in an effort to make textbooks more affordable.
- The Chancellor shall create and implement a bulk purchasing program for the most commonly used books that appear on the lists submitted to the Ohio Board of Regents
- Within two years of the bill passing, the Chancellor shall negotiate with publishers to provide one or more electronic versions, if legally available, of the main textbooks used at the colleges.

Source: *Government Relations Section, Board of Trustees Report, Owens Community College, May 4, 2010*

Ohio Board of Regents publishes the third Condition of Education in Ohio that underscores the need to deliver high quality education to more Ohioans with existing resources. In assessing how competitive Ohio is to deliver high quality education to many more Ohioans, the Ohio Board of Regents concluded that in some instances Ohio is well-positioned to compete, and in other areas, Ohio has made substantial progress yet additional efforts are needed. The following is a summary of their report.

- Ohio has made substantial progress in moving toward a common academic calendar, in integrating the adult career centers into the University System of Ohio and implementing its “30 Mile Promise”

- Ohio's significant infrastructure for dual enrollments must be accessed by more high school students so that they complete college quicker and at lower cost
- Expanding dual admissions for colleges can smooth the transition from two to four-year institutions
- Ohio has invested considerable effort in developing transfer and articulation guidelines and should continue these efforts and consider additional bold actions to assure a seamless transition for students
- Ohio has achieved success in growing its online offerings and student services
- Ohio has improved services for veterans and their families
- Ohio has made substantial progress in making college more affordable for students and their families
- Ohio has adopted strong college and career readiness policies; however, real results have not yet occurred
- Ohio must find innovative ways to help adults become college ready
- Ohio's efforts to improve educational effectiveness must continue
- Ohio has made substantial progress in achieving administrative efficiencies
- Greater collaboration among institutions, business and industry and other state services can result in greater cost effectiveness
- Ohio is improving degree attainment and degrees granted
- Ohio must find ways to increase the number of degrees awarded to adults, underserved racial/ethnic groups and veterans
- Ohio must find ways to increase the number of degrees awarded in the science, math, engineering, technology and medical fields to adults, underserved racial/ethnic groups and women
- Ohio's higher education institutions are making strong contributions to Ohio's workforce and economy and to its future economic strength
- Ohio's return on investment from the Third Frontier has been substantial
- Ohio has maintained a strong, diverse, high quality higher education system and the financial strength of the institutions has been relatively stable during this difficult economic period.

Source: "[Meeting the State's Current and Future Needs through a Student-Centered University System of Ohio](#)", Ohio Board of Regents, March 31, 2010

Federal Level

Amendments to the American with Disabilities Act (ADA) are likely to result in higher costs to institutions, as the legislation included "thinking" and "concentrating" on the list of major life activities for which students with difficulties may request accommodations Source: *Diverse Education*, July 23, 2008

Colleges and universities in the US continue to be saddled with a variety of costly compliance related expenses. The accountability requirements that come with changes to FERPA, identity theft protection, Title IX, and more, all contribute to the cost of higher education. Federal funding agencies, such as the National Science Foundation and the Department of Energy, have started Title IX compliance reviews in a number of academic departments across the country. Source: *Capital newspapers*, September 3, 2008,

Education Department gives colleges new flexibility on student-privacy law. The Family Educational Rights and Privacy Act (FERPA) had new rules issued December 2008 that became effective January 2009. Of particular concern are rules about contractors that affect outsourcing students' email to Microsoft and Google, one way institutions are looking to cut costs. *Sources:* "[Education Department Gives Colleges New Flexibility on Student-Privacy Law](#)," *Chronicle of Higher Education*, December 19, 2008, "[Updated Privacy Law Addresses Student Safety](#)," *eSchool News*, January 12, 2009

College for all is championed in the Inaugural Address. That pledge is backed up by a budget that funds higher Pell Grant awards, full support for veterans, and more support for college preparation programs. *Sources:* *Inside Higher Ed*, February 24, 2009, "[The Post Bush Budget](#)," *Inside Higher Ed*, February 4, 2009

Fiscal fortunes of education at all levels changed. The election of Barack Obama and the Democratic Congress has changed the fiscal fortunes of education at all levels. The American Recovery and Reinvestment Act of 2009 provided real increases in funding for scientific research and infrastructure. *Source:* "[Beaker-Ready Projects? Colleges Have Quite a Few](#)," *The New York Times*, February 24, 2009

Reliable methods for tracking students throughout their educational careers are likely to be implemented. Whether it's the plan proposed by the US Department of Education's Office of Inspector General or the collaboration among states being supported by the Bill and Melinda Gates Foundation, it is expected that a national student data base will happen in the next five years *Sources:* "[A National \(But Not Federal\) Student Database](#)," *Inside Higher Ed*, November 19, 2008, "[Privacy Concerns About U.S. Database](#)," *Inside Higher Ed*, February 13, 2009, "[States Make Progress On Data Systems](#)," *eSchoolNews*, November 19, 2008

The Student Aid and Fiscal Responsibility Act (SAFRA) was signed into law. SAFRA, as part of the healthcare package's reconciliation bill, has been signed into law. It was created to provide additional financial aid and investment in education by having institutions move to a direct lending program that would essentially end federal subsidies to banks issuing guaranteed student loans. Owens has already moved to direct lending and will not be impacted by this requirement. The Final Reconciliation Bill (HR4872) also includes the following:

- \$2 billion will be directed to the Community College and Career Training Program with Ohio possibly receiving 2.5 million.
- Pell Grant maximums will increase to \$5,975 by 2019. Currently a qualifying student can receive \$5,350.
- \$750 million will be directed to the existing College Access Challenge Grant.

Source: Government Relations Section, Board of Trustees Report, Owens Community College, May 4, 2010

Obama administration calls for expanding Pell Grants. The Obama administration, even as it tried to restrain other domestic spending in its 2011 budget request, has called for expanding the Pell Grants, the main federal college aid program for low-income families. If adopted by Congress, the President's formula would raise the top grant to \$5,710 in 2011, compared with

\$5,550 this year, according to The Chronicle of Higher Education, and make the program available to an additional one million students. *Source: “[Rising College Costs: A Federal Role?](#)”, New York Times, March 10, 2010*

New federal law is aimed at controlling textbook costs. The climbing cost of college textbooks has been the subject of congressional hearings and legislative efforts in almost three dozen states. A federal law that takes effect in July is aimed at controlling textbook costs. It requires publishers to tell professors the price of textbooks when they choose books for classes, and it ends the practice of bundling — packaging editions with CD-ROMS, study guides and online tools, which critics say are unnecessary. It asks colleges to tell students which textbooks they need a semester early. *Source: “[Law that takes effect in July aimed at controlling textbook costs](#),” Pittsburgh Tribune-Review, March 8, 2010*

Debate for reauthorization of the Workforce Investment Act started. Debate has started in Congress over renewing the Workforce Investment Act, a federal law that authorizes billions of dollars for education and job-training programs, including at community colleges. With the nation's unemployment rate hovering at 10 percent, it is probably no coincidence that the 1998 law, which has been due for a renewal since 2003, has come to the attention of Congress, especially as the Obama administration focuses more attention on job creation. Lawmakers are couching the act's reauthorization as a vital vehicle for creating a robust work force. *Source: “[Obama's Job-Creation Goals Spur Interest in Renewing Law That Covers Training Programs](#),” The Chronicle of Higher Education, February 24, 2010*

\$225 million earmarked for training. More than \$225 million in U.S. Department of Labor grant awards are being earmarked to train 15,000 people for careers in healthcare, information technology, and other fast-growing fields. The training will be offered at community colleges and other local education providers. The money is part of \$1 billion in federal stimulus money being doled out to help make health information technology available to more than 100,000 health-care providers by 2014 and to support job training. *Source: “[\\$225-Million Earmarked to Train Health-Care Workers at Community Colleges](#),” The Chronicle of Higher Education, February 12, 2010*

House approves student loan bill. The U.S. House of Representatives approved legislation that would expand health-insurance coverage for Americans and end the bank-based system of distributing federally subsidized student loans. The end of the bank-based system will save about \$61 billion over 10 years, according to the Congressional Budget Office. About \$36 billion of that will be used to help finance annual inflation-adjusted increases in the value of the Pell Grant for low income students. *Source: “[House Approves Student Loan Bill](#),” The Chronicle of Higher Education, March 21, 2010*

National Broadband Plan is proposed to Congress. The Federal Communications Commission has delivered a sweeping blueprint to Congress for a National Broadband Plan. FCC Chairman Julius Genachowski says it's "a 21st-century roadmap to spur economic growth and investment, create jobs, educate our children, protect our citizens and engage in our democracy." The FCC's goal, Connecting America, is to leverage broadband to transform nearly every aspect of U.S. society and industry, including health care, education and energy. Investing

in Broadband will help America lead the world in 21st century educational innovation. *Source: "[National Broadband Plan](#)" Federal Communications Commission, March 16, 2010*

University Sustainability Grants Program created. On August 14, 2008, the new Higher Education Opportunity Act of 2008 (HR 4137), containing provisions of the Higher Education Sustainability Act (HESA), was signed by President George W. Bush and became law. HR 4137 created a "University Sustainability Grants Program" at the Department of Education that, once funded, would offer competitive grants to institutions and associations of higher education to develop, implement, and evaluate sustainability curricula, practices, and academic programs. The bill also directed the Department of Education to convene a national summit of higher education sustainability experts, federal agency staff, and business leaders to identify best practices and opportunities for collaboration in sustainability. *Source: "[AASHE Digest 2008](#)", Association for the Advancement of Sustainability in Higher Education, June 2009*

New Federal Rules for Educational Internships are released. Amid increasing national attention to unpaid internships, the US Department of Labor has released a statement that clarifies employers' and colleges' roles under federal law. *Source: "[Internship Programs Under The Fair Labor Standards Act](#)", U.S. Department of Labor, April 2010*

Education Department Reverses 2005 Title IX Policy. The Obama administration plans to withdraw a 2005 clarification of a federal anti-discrimination law that critics saw as weakening enforcement of gender equity in college athletics. Administration officials said their interpretation would once again require the Office for Civil Rights to evaluate "multiple indicators" -- including surveys -- to gauge the athletic interests and abilities of the underrepresented sex at educational institutions. *Source: [Reversing Bush on Title IX \(Update\)](#), Inside Higher Ed, April 20, 2010*

Education Department announces it will revise rules on the release of student records. The US Education Department has announced that it will propose new regulations governing student privacy rights in the next several weeks; the revision to FERPA will have two goals, to "strengthen enforcement" and to "clarify" how states can use information from statewide longitudinal data systems to inform policy decisions without running afoul of the student privacy law. *Source: "[Education Department to Revise Rules on the Release of Student Records](#)", Higher Ed Impact: Weekly News and Key Takeaways, Academic Impressions, April 23-30, 2010*

Environmental and Physical Factors

Since December 2006, 645 colleges and universities, representing 5.7 million students, have made the commitment to the American College and University Presidents' Climate Commitment to address global climate disruption. In December 2006, twelve college and university presidents working with the Association for the Advancement of Sustainability in Higher Education (AASHE), ecoAmerica and Second Nature launched the American College and University Presidents' Climate Commitment (ACUPCC). The ACUPCC is a high visibility, joint, and individual commitment to address global climate disruption through actions to reduce

and eventually neutralize greenhouse gas emissions and to develop the capability of students to help all of society do the same. They recognize that global climate disruption represents a fundamental barrier to creating a healthy, just, and economically and environmentally sustainable society. The participating presidents have committed their institutions to creating a comprehensive institutional action plan to move toward climate neutrality through the following actions:

- Complete a greenhouse gas emissions inventory within one year. The emissions covered are from heating and cooling buildings, electricity usage, commuting transportation, and official airline travel by administrators, faculty and staff.
- Within two years, set a target date and interim milestones for becoming climate neutral. Each school has the flexibility to do it on its own schedule and in its own way.
- Take immediate steps to reduce greenhouse gas emissions by choosing two from a list of seven short-term actions.
- Make sustainability an integral part of the curriculum and educational experience of all students. In the long run, the greatest impact of higher education is what we teach.
- Make the action plan, inventory, and progress report publicly available. This provides the critical accountability necessary to continue to focus on living up to the commitment.

As of 2009, 645 colleges and universities in all fifty states and the District of Columbia have made this commitment. *Source:* "Climate Neutral Campus Report", *American College & University Presidents Climate Commitment, August 2009.*

University System of Ohio Chancellor reinforces commitment to reduce energy consumption and create sustainable campuses. The University System of Ohio held an inaugural sustainability conference in Honor of Earth Day's 40th Anniversary. The conference specifically focused on energy efficiency, green workforce development, and green research and development in Ohio. This event is one of several efforts to increase the promotion, collaboration and implementation of sustainability and efficiency throughout the University System of Ohio. "Ohio is already a national leader in advanced energy efforts, and most recently higher education is making great strides in linking education and training programs on our campuses to jobs in green industries across the state," Chancellor Fingerhut said. "Today's conference is part of the University System of Ohio's commitment to reducing energy consumption and creating sustainable campuses and communities." *Source:* "[University System of Ohio Holds Inaugural Sustainability Conference in Honor of Earth Day's 40th Anniversary](#)", *Media Release, Ohio Board of Regents, April 27, 2010*

Feds eye certification for retrofit workers. A uniform set of national standards to qualify energy efficiency and retrofit workers and industry training providers will build consumer confidence that retrofitting homes is done correctly and results in the expected energy savings and benefits, according to a new federal report. To bring an effort to make homes more energy efficient to a national scale will require more well-trained retrofit workers, according to the report. And to train those workers properly requires certification standards for the industry, it added. A lack of business skills training is another barrier to bringing retrofit programs to scale, the report said. "Developing a workforce equipped with both technical and business skills will improve the rate of success for small efficiency retrofit businesses and increase the ability to respond to rising retrofit demand," it said. "This will enable sustained economic and green job

growth while achieving further energy savings and healthy homes.” Source: “[Recovery through Retrofit](#)”, Middle Class Task Force and Council on Environmental Quality, October 2009.

New tech for windows can save on energy costs. Windows can be a major source of energy loss in today’s typical home. But glass windows and doors also may be the weakest link on college campuses when it comes to saving energy and reducing heating and air conditioning (HVAC) operating costs. Despite heavily insulated walls and ceilings, 25 percent to 35 percent of the energy used in buildings and homes is wasted because of inefficient windows and glass. With this in mind, the U.S. Department of Energy (DOE) mandated its Energy Star window performance standards more than a decade ago, and it has been promoting the adoption of energy efficient windows equipped with “low-e” coated glass ever since. The “e” in low-e stands for emissivity, which is the ability of a surface to radiate energy. The lower the emissivity of a coating, the less heat is radiated and the better the insulating performance of the glass. Source: “[New Tech for Windows Can Save on Energy Costs](#)”, *Community College Times*, June 21, 2009

Water conservation is catching on at some campuses. Water quality was one of the first aspects of environmental awareness in the 1960s and 1970s, but it’s slipped off the radar in the face of global climate change. Unfortunately, one of the first casualties of climate change could be water. Banning bottled water is beginning to catch on at some campuses. It’s time to consider the water used to make products, as well as the energy, when we’re looking at our ecological footprint. Sources: *The Ubyyssey*, August 20, 2008, “[Commentary: The Business of Water](#),” *E/The Environmental Magazine*, Ironically, students are finding fewer water fountains and other potable water sources when they walk around campuses--just vending machines for water and sugared drinks. Source: *Canadian Union of Public Employees*, September 2, 2008

The rapidly growing carbon footprint associated with information and communications technologies, including laptops and PCs, data centers and computing networks, mobile phones, and telecommunications networks, could make them among the biggest greenhouse gas emitters by 2020.

- Research indicates that at a minimum, 2 percent of the global atmospheric carbon emissions can be traced to the information technology industry. (Knowledge@Wharton, September 23, 2008, knowledge.wharton.upenn.edu/article.cfm?articleid=2040).
- The cost to institutions of technology intensive research and teaching offers a clear target of opportunity for reducing energy use, if the campus has an energy management strategy in place. Only 35.6 percent of campuses had one in a recent survey by CDW-G. Source: “[2009 Energy Efficient IT Report](#)”, CDW-G, August 2009
- By 2011, data centers are expected to spend \$1 on power and cooling for every \$1 they spend on hardware. Source: “[Climate Change, Campus Commitments, and IT](#)”, *Educause Research Bulletin*, Volume 2008, Issue 20, September 30, 2008
- None of the top three energy saving measures in the CDW-G report focuses on data centers. Instead, IT departments are looking to migrate to LCD monitors, get employees to shut down equipment, and to buy ENERGY STAR® qualified devices. Source: “[2009 Energy Efficient IT Report](#)”, CDW-G, August 2009
- The incentives to focus on the energy costs of IT will likely increase if carbon emissions are taxed and can be expected as the cost of energy rises with economic recovery. Source: “[How can IT cut carbon emissions](#)”, *The McKinsey Quarterly*, October 2008

Educational Factors

E-Learning

Clayton Christensen of the Harvard Business School predicts that within ten years over half of instruction will take place online. *Source: eSchool News, February 23, 2009, <http://www.eschoolnews.com/conference-info/aasa>*

Education will be portable, and learning will be “on-demand”. Education may follow the entertainment-delivery model, allowing customers (learners) to download what they want and use it when they want it. Faculty will increasingly upload lectures and educational “playlists” to podcasting services for students to attend at their convenience. *Source: “Tomorrow in Brief”, The Futurist, Sep-Oct 2006, p. 2.*

Colleges must make choices as they approach critical mass in distance offerings.

Choices colleges need to make as they reach either 50 percent or some other critical mass where the institution is changed by the success of its distance offerings include

- Faculty hiring – changes in what search committees seek in new hires
- Faculty training – keeping current on such things as the evolution of cheating techniques
- Faculty expectations – How will policies that were created over the years (assuming in-classroom instruction was the norm) need to be changed as more faculty time is spent on-line?
- Local ties – Given the reliance on state funds, what are the implications of out-of-state and out-of-country students?
- Technology infrastructure – With growth, how much more expensive and more difficult will tech support be when you can’t afford to go down for a day?
- Evaluation of on-line teaching - Issue for contract negotiation
- Organizational structure – Are we organized to efficiently address online issues, such as curriculum development, faculty development, course evaluation, strategic planning for online delivery?

Source: “[The Distance Ed Tipping Point](#),” Inside Higher Ed, May 26, 2009

Virtual education will enter the mainstream by 2015. Only 10% of higher education is now educated online. E-training accounts for 30% of corporate training, however, and will likely exceed 50% soon. The fact that 100 million Americans are taking continuing education classes suggests a healthy and growing market for online college courses. *Source: “Technology’s Promise: Highlights from the TechCast Project,” The Futurist, Nov-Dec 2006, p. 46*

Community Colleges shift focus on distance education toward assessment, support and accreditation. Researchers are seeing a shift in the issues community colleges are addressing regarding distance education. Most colleges have had some form of distance education for about 10 years and are now focusing on the next steps of the process, including assessments, support for training and technical help, and accreditation issues. *Source: “[As online ed matures, it must tackle new issues](#)”, Community College Times, April 4, 2010.*

Colleges are testing students for online readiness. While online learning is fast becoming a popular option for students, it's not for everyone. In addition to the skills required to succeed in traditional classroom courses, online students must be self-motivated, disciplined and good independent learners. Prior to enrolling in an online course, some two-year institutions are offering orientation for online courses, readiness assessments and tips for success. *Source: "[Testing students for online readiness](#)", *Community College Times*, February, 16, 2010*

Online enrollment jumped 17% in 2009. A Sloan Foundation report has found that the down economy has driven online enrollment up by 17% in the past year. *Source: "[Learning on Demand: Online Education in the United States, 2009](#)", Sloan Foundation, January 2010*

Distance education at community colleges grew 22 percent from 2007-2008 to 2008-2009. Distance education is growing quickly at community colleges, according to the results of a study published by the Instructional Technology Council. For the 2008-2009 academic year, enrollment in distance learning at community colleges grew 22 percent over the 2007-2008 academic year, up from a growth rate of 11 percent the previous year. The 22 percent growth from 2007-2008 to 2008-2009 is somewhat higher than the 17 percent growth that the Sloan Consortium noted for all distance education from fall 2007 to fall 2008. Overall enrollment in higher education grew less than 2 percent during that time. *Source: "[Distance Education's Rate of Growth Doubles at Community College](#)", *The Chronicle of Higher Education*, April 13, 2010*

E-Learning Trends 2010 – Online courses offer the perfect solution to those who need or want to enhance their education: Workers who need to upgrade their skills but cannot attend classes during the workday; mothers who want or need to stay at home with their children or cannot afford child care; other caregivers who cannot leave their sick, disabled or elderly relatives at home alone; rural Americans who don't have the means or time to drive to a college campus; students who want to take courses or degree programs that are not offered at their local college; students who want to finish their degree, but the class they need conflicts with another required course; returning military personnel who began their coursework online while they were abroad and want to finish their degree program; and disabled veterans and others who have no option but to earn their degree online.

- *Public two-year colleges lead other sectors in providing online courses.* In 2006-07, the National Center for Education Statistics [reported](#) that 97 percent of public two-year colleges offered their students online or hybrid distance education courses. This compares to 89 percent of public four-year colleges and 53 percent of private four-year colleges. Together, distance education courses accounted for an estimated 12.2 million enrollments or registrations.
- *Double digit enrollment growth is accompanied by reductions in staff to serve new students.* The data for online enrollment at community colleges during the past few months has not been collected, but many members of the [Instructional Technology Council](#) (ITC) have reported that their distance learning enrollments have increased 20 percent to 30 percent this past year. Ordinarily, this would be good news, but reductions in state funding have resulted in layoffs and hiring freezes that have reduced the number of administrative staff available to serve these new online students.

- *Increased competition with proprietary institutions.* Inside Higher Ed [reports](#) that enrollment of degree-seeking students at the University of Phoenix grew 22 percent, from 362,000 in August 2008 to 443,000 in August 2009. The fall 2009 increase at Kaplan Higher Education was 21.9 percent and 24.4 percent at Corinthian Colleges. The University of Phoenix offers all of its courses in an online and traditional face-to-face format. The biggest growth at the University of Phoenix, by far, has come from students seeking associate degrees, which rose 37 percent, from 146,500 in 2008 to 201,200. Its new students mirror community college demographics: 66 percent female, 27.7 percent African-American, and 50 percent older than 30 years.
- *Reductions in state and local funding reduce the ability of community colleges to expand online offerings.* Although community colleges try to keep in pace with the increases in courses offered at proprietary schools, most cannot immediately meet the ever-expanding student demand for online courses. They cannot radically expand their online course offerings when the recession has cut their state and local funding. Expanding online programs will involve hiring and training more faculty members and ramping up student services to accommodate those who learn at a distance.
- *Nearly 90 percent of online programs cap enrollment to ensure quality.* ITC found that 87 percent of online programs cap their student enrollment: introductory math–25 students, introductory English composition–24 students, and introductory political science–30 students. Any online course administrator or instructor will testify that class size must be limited to ensure that learning and proper student-to-teacher interaction takes place.
- *Community colleges enjoy several competitive advantages:* their tuition rates are much lower than proprietary institutions, they are able to respond more quickly to economic trends than non-profit four-year institutions and students prefer to take courses from colleges located in their community (whether they are learning online or not).

Source: “[E-learning Trends for 2010](#)”, *Community College Times*, January 19, 2010

More colleges outsource the hosting services for their online classes. The 2009 Instructional Technology Council Survey data confirmed that more colleges outsource the hosting services for their online classes compared to previous years-to a third party or as part of a consortium- perhaps reflecting budget and staffing reductions at a growing number of institutions due to the economy. Forty percent said they maintain their own servers, down from 50 percent in 2008. Thirty-six percent outsourced their server needs to a third party, such as a learning management system provider, publisher, or IT provider. Twenty percent shared servers with others, such as a state system, district or consortium, up from 10 percent in 2008. Source: *Instructional Technology Council*, “[Trends in eLearning: Tracking the Impact of eLearning at Community Colleges](#)”, March 2010

Students using online services of publishers are up sharply. In 2007, more than 30% of faculty assigned publisher-based online materials to students. In 2006, Pearson reported 2.5 million enrollments using their online services; Thompson Learning reported 1.5 million. Pearson cited a portal system performance goal of 10 million enrollments by January 2008; performance goals are not expected enrollments, but this also signals a sharp increase is expected in publisher-hosted eLearning. Source: *e-Literate*, “[Lessons from Blackboard](#)”, August 5, 2007

Results of a 2010 Owens Survey of online students shows that 47 percent of survey respondents were required to use something other than Blackboard for their online courses. These are believed to be publisher-based materials; however, this is a question to include in future surveys. The rise of the use of publisher-based electronic resources raises issues of cost, technical support, and the college's access to course materials. *Source: E-Learning Department, Owens Community College, "Web Student Survey 2010", June 2010.*

Shift toward e-learning activities and outsourcing delivery by training organizations.

According to Training Magazine (2006), training organizations are shifting their staffing models away from a dominant focus on trainers and are now more focused on design, e-learning, and service and support activities. In addition, they are now outsourcing much of the delivery. A few years ago, more than 70 cents of every training dollar went to payroll. Today the figure is about 65 cents. *Source: Training Magazine, "[2006 Industry Report](#)", December 2006.*

K-12

The Ohio 2010-2011 Budget will effectively overhaul the curriculum and the ways schools in Ohio operate. The budget calls for a switch from the Ohio Graduation test to the ACT or another college entrance exam. Districts will be hard pressed in the current economic environment to implement all the mandated requirements. *Source: "[Area schools weigh gains, losses in state budget: Reforms included in Strickland proposal](#)," Toledo Blade, July 16, 2009*

High Schools to offer plan to graduate 2 years early. Dozens of public high schools in eight states will introduce a program next year allowing 10th graders who pass a battery of tests to get a diploma two years early and immediately enroll in a community college. High school students will begin the new coursework in the fall of 2011 in Connecticut, Kentucky, Maine, New Hampshire, New Mexico, Pennsylvania, Rhode Island, and Vermont. The project's backers hope it will eventually spread to all schools in those states, and inspire other states to follow suit. *Source: "[High Schools to Offer Plan to Graduates 2 Years Early](#)," New York Times, February 19, 2010*

Ohio high school students entering their freshman year this fall will face tougher math requirements as part of a growing effort by Ohio and other states to better prepare students for college and careers in the global economy. Ohio will require the incoming freshmen to complete four units of math for graduation, compared to the three now required. Another new requirement for graduation is that one of those four units must be Algebra II. *Source: "[Ohio Students Face Tougher Math Requirements](#)," Herald-Dispatch, January 4, 2010*

Ohio colleges should begin to see more academically prepared, direct from high school students, starting with the High School Graduating Class of 2014. In 2007, Ohio passed the Ohio High School Core Curriculum. Ohio's core has links back to the American Diploma Project Benchmarks, an ambitious set of academic content standards reflecting convergence of both employer and post-secondary expectations.

- In English, benchmarks focus not only on literature and writing but also explicitly on reasoning, logic, and communication skills. The English benchmarks demand strong oral

and written communication skills because these are staples in college classrooms and 21st century jobs.

- In mathematics, benchmarks include number sense and numerical operations; algebra; geometry; data interpretation, statistics, and probability; and mathematical reasoning.
- Cross-disciplinary proficiencies included in the benchmarks are
 - *Research and evidence gathering* – Proficiencies that call on students to be able to conduct research and utilize the research process to describe, summarize, and synthesize information or to solve problems.
 - *Critical Thinking and Decision Making* – Proficiencies that enable one to employ abstract and concrete reasoning to make and assess logical inferences, conclusions, and predictions. These benchmarks foster the ability to analyze evidence and data to build arguments and strategize about possible solutions. They also call on students to learn to make sound decisions that acknowledge and evaluate probability, uncertainty, and risk.
 - *Communication and Teamwork* – Proficiencies include the ability to listen critically, make oral presentations, and write complex reports. The benchmarks focus on developing the skills to articulate and translate ideas and information with precision and coherence. Also the benchmarks call for self-directed students with the ability to listen and learn from others in order to reach common goals while respecting differences. They include a focus on understanding different viewpoints to reach consensus and to work productively in teams.
 - *Media and Technology* – Benchmarks call on students to be able to use the appropriate information and communications technologies to enhance comprehension, creativity, and productivity. They also call on students to learn to assess and employ a variety of media and formats to evaluate, create and distribute information.

Source: “[Out of Many, One: Toward Rigorous Common Core Standards from the Ground Up](#)”, *Achieve Report*, July 2008

Ohio’s K-12 standards need to more closely bridge to those of higher education and match those of world-class systems and its assessments need to become more accurate predictors of student readiness for college and work. With the enactment of the Ohio Core legislation early in 2007, Ohio took an important step toward preparing all of its students for postsecondary education and careers in the 21st Century economy. While the legislation dealt primarily with the course of study students must pursue in order to earn a high school diploma, additional steps will be needed to support those programs of study. Ohio should bring its academic standards and assessments in line with the knowledge and skills required for success in postsecondary education and for careers that pay a family wage and provide opportunities for individual growth and advancement. Although Ohio has led in the arena of standards, curriculum, and assessments, the State needs to move to the next level--one that makes it globally competitive. Its K-12 standards need to more closely bridge to those of higher education and match those of world-class systems, and its assessments need to become more accurate predictors of student readiness for college and work. Therefore a recommendation was made to “Align Ohio’s academic content standards more tightly with real-world expectations through a rigorous review and benchmarking process”. Source: “[Creating a World-Class Education System in Ohio](#)”, *Achieve, Inc.*, 2007

Early College High School is a promising approach for at risk students. While North Carolina leads the way in early-college high schools, the model is spreading in California, New York, Texas and elsewhere, where such schools are seen as a promising approach to reducing the high school dropout rate and increasing the share of degree holders — two major goals of the Obama administration. More than 200 of the schools are part of the [Bill and Melinda Gates Foundation](#)'s Early College High School Initiative, and dozens of others, scattered throughout the nation, have sprung up as projects of individual school districts. Most of the early college high schools are on college campuses, but some stand alone. Some are four years, some five. Most serve a low-income student body that is largely black or Latino. But all are small, and all offer free college credits as part of the high school program.

A recent report from [Jobs for the Future](#), a nonprofit group that is coordinating the Gates initiative, found that in 2008, the early-college schools that had been open for more than four years had a high school graduation rate of 92 percent — and 4 out of 10 graduates had earned at least a year of college credit. *Source: “[For Students at Risk, Early College Proves a Draw](#),” *The New York Times*, February 7, 2010*

Higher Education has yet to feel the full effects of the economy. A potential threat is coming from K-12 schools. Many high schools are building career academies in the place of “traditional” high schools, preparing students for transition into post-secondary institutions or the job market. In these career academies, students focus on a particular skill set – such as nursing – gaining practical experience in a specific field and earning college credits while still in high school. Many students graduating from career academies will start college with a number of credits already earned, easing the financial burden of a college education. But others will forgo college education all together, opting to enter the workforce right after high school. For many high school students deciding on college or work, the perception that college is no longer translating into a higher-paying job is a deal breaker. *Source: “[The Economy is Changing Higher Education](#),” *College Planning & Management*, p.6*

Postsecondary

Tax loopholes fuel for-profit colleges' expansion. The nation's for-profit higher education companies have tripled enrollment to 1.4 million students and revenue to \$26 billion in the past decade. Now they're taking a new tack in their quest to expand: By exploiting loopholes in federal rules, they're acquiring struggling nonprofit and religious colleges -- and their coveted accreditation. Typically, the goal is to transform the schools into online behemoths at taxpayer expense. *Source: “[Loopholes a tax-funded bonanza to fuel for-profit colleges' expansion](#),” *Bloomberg via Chicago Sun-Times*, 3/6/2010*

Community Colleges are pooling efforts to counter marketing by for-profits. Individual community colleges can't match the marketing budgets of for-profit institutions that plaster their regions with advertisements. So they're exploring ways to fight back by going national, pooling their efforts to promote online programs in a new marketing collaboration. Institutions participating in the talks include the Dallas district, Foothill-De Anza Community College, Rio Salado College, and Northern Virginia Community College. [Community Colleges Explore](#)

[National Collaboration to Fight For-Profit Marketing Machine](#), *The Chronicle of Higher Education*, March 9, 2010

E-readers could change learning. Two-year colleges that are considering replacing cumbersome, expensive printed textbooks with electronic readers to download course textbooks should keep tabs on Houston Community College Southwest in Texas, which is testing the Kindle e-reader in a handful of classes and plans to also test the soon-to-be-released iPad. *Source: “[E-readers could change learning](#)”, *Community College Times*, March 25, 2010*

The drive to collect, analyze, use and share student performance data is intensifying nationally. For decades individual colleges and universities have operated independently of each other, maintaining discrete student-record systems. This disconnected arrangement makes it difficult to trace a student’s progress through the system and into the workforce – and it stymies the effort to increase college completion and improve the overall effectiveness of the higher-ed system. However, a trend is emerging – the increased use and sharing of student-level data to boost the success of postsecondary students. *Source: “[Off the Charts](#)”, *Lumina Foundation, Focus Magazine*, Spring 2010*

Community Colleges are urged to improve graduation rates through a renewed focus on developmental education. Developmental education has garnered much national attention recently. Melinda Gates of the Bill & Melinda Gates Foundation urged community colleges to improve graduation rates through a renewed focus on developmental education and pledged up to \$110 million to help scale up successful programs. Gates said many are low-quality programs that are supposed to help students catch up academically, but they are actually the biggest obstacles students must overcome in their pursuit of a college degree. According to policymakers at MDRC and the Carnegie Foundation, the problem with long-standing and traditional community college developmental offerings is that many of them have been designed with a one-size-fits-all approach. “Sometimes, based on the test scores—which in many cases have not been that well-tuned or refined—a student may be placed in a particular math class for remediation purposes when he or she only needs remediation in one particular area and not an entire course,” says Bernadine Chuck Fong, a senior partner with the Carnegie Foundation for the Advancement of Training, which is conducting an exhaustive study of community college “gatekeeper” courses. The Ohio Board of Regents is adopting the Achieving the Dream data set in their focus on developmental education in Ohio. Achieving the Dream is a national initiative to use data to identify problem areas and help two-year colleges student succeed. *Source: “[A more-focused approach to developmental education](#)”, *Community College Times*, May 4, 2010*

Interesting trend when it comes to students learning developmental math: The more you take the same algebra class, the less chance there is to pass it. According to Notling, a learning specialist, “What that means is that if you use the same instructional style on students for whom it didn’t work the first time, you are more than likely going to get the same results and even worse the second and third time you try.” *Source: “[Changing developmental ed at the classroom level](#)”, *Community College Times*, May 4, 2010*

Community colleges are enhancing seamless articulation and transfer to four year universities through creation of university centers. Not having articulation agreements isn’t

the only thing holding students back when transferring from a two-year to a four-year institution. Most of these students still have the life issues that prompted them to attend a community college initially. An education model that can help them overcome these challenges is a university center, which combines the degree completion opportunities of four-year schools with the local convenience of a community college campus. A recent Association for Consortium Leadership survey discovered 64 U.S. organizations that self-identify as a “higher education center.” They form either when a community college teams with a senior college or university, or when a state legislature decides an area is underserved. *Source: “[University Centers - Partnerships for greater degree completion opportunities](#)”, University Business, May 2010.*

Global Education

Shifting demographics, technological breakthroughs, and the volatility of international political and economic conditions make it unlikely that patterns of the past will easily or reliably predict the future for global education. Future trends are interrelated and include:

- *Changing patterns of enrollment* – The massification of systems and expansion of enrollments worldwide has occurred at a staggering rate from 1980 to 2006. Demand for higher education will continue to grow but will come from separate sectors in different countries. Globally, postsecondary education will continue to expand, but in sharp contrast from the past several decades, much of that growth will be in developing countries, especially in China and India.

On the surface it would appear that the developed countries have, in large part, achieved universal access to higher education. But major variations have turned up in some countries and significant access problems have been identified for underserved population sectors. In a growing number of countries, mainly in Europe and East Asia, demographic trends reflect a decline in the number of young people who comprise the traditional age cohort enrolling in higher education, but the demand has grown among nontraditional populations. Systems and institutions will need to adjust to these new realities.

Although efforts to address demand have successfully expanded access in many countries, expansion has not resolved persistent social inequities. Socioeconomic background and parental education all too often influence the level of education an individual will receive. Underserved students from lower socioeconomic classes; underrepresented racial, ethnic, and religious minority groups; and the disabled will require new services and infrastructure in order to participate successfully.

- *Shift from focus on access to completion* – Mass enrollment has opened access to previously excluded population groups; however, inequality in access continues. In the age of growing accountability, institutions will be measured by their success at supporting students through to completion, not by simply getting more students through the door.
- *Diversification* – Mass enrollment has created the need for diversified academic systems-hierarchies of institutions serving different needs and constituencies. The private sector will be an important aspect of diversification. It has been the fastest growing segment of

postsecondary education worldwide and will continue to expand in many countries, simply because public institutions will not be able to keep pace with student demand.

- *Privatization and Funding* – Public higher education has begun, and will continue, to take on practices and characteristics of private institutions. A combination of influences – neoliberal attitudes, limited public funding, increasing costs, the need to address expanded social expectations and build better management systems – will oblige public postsecondary institutions to look for additional sources of income. This will be done through increased sharing of costs with students and through income generation from other sources, including research, consulting, and university-industry partnerships.
- *New Technologies* – Information and communications technology has already profoundly affected higher education worldwide. The impact can be seen in the communication of knowledge through e-mail, blogs, wikis, and podcasts; the rapid expansion of distance education, electronic publication of scientific journals and books, and to some extent academic management. The new technologies will continue to affect all aspects of higher education including the transformation of our approach to teaching and learning through distance-education programs and within classrooms.
- *The Concern for Quality* – Quality will continue to be a high priority for higher education. During the last decade, quality assurance schemes for higher education have been implemented almost everywhere. At the next stage, the trend will be toward standards that can be referenced internationally. The Bologna process is guiding Europe toward shared benchmarks and standards that will make it possible to compare qualifications awarded in all participating countries.
- *The Struggle for the Soul of Higher Education* – The traditional societal mission of higher education has been under pressure for the last half century. The “commercialization” of higher education has placed considerable strain on its social mission. The debate concerning the primary mission and priorities of higher education will continue in many parts of the world, with a possible hindering of protecting activities that serve the public good in the face of growing financial constraints and market influence.
- *The Professionalization of Higher Education Management and Leadership* – As higher education institutions and systems have become larger and more central to society and individuals, there is a growing need for professional management and leadership. Training programs are slowly emerging, as are “think tanks” and policy forums. Academic institutions and systems are beginning to collect data about themselves for use in policymaking and improvement. There is a growing need for complete and accurate regional and international data for analysis as well.

Source: “[Trends in Global Education: Tracking an Academic Revolution](#)”, United Nations Educational, Scientific, and Cultural Organization (UNESCO) World Conference on Higher Education, 2009

OpenCourseWare network is opening and reshaping global access to higher education.

OpenCourseWare network is part of an educational resources movement dedicated to opening and reshaping global access to higher education. Since 2000, when the Massachusetts Institute of Technology established the first OpenCourseWare site, schools — including top names like Harvard and Stanford in the United States and Oxford and Cambridge in Britain — have been releasing educational materials to the public through platforms that include iTunes U, youtube.com/edu and their own sites, like Open Yale Courses. The OpenCourseWare

Consortium, which grew out of the M.I.T. project, now includes over 200 institutions worldwide and offers materials from more than 13,000 courses. *Source: “[As Colleges Make Courses Available Online Others Cash In](#)”, New York Times, March 31, 2010*

Majority of U.S. students choose short-term programs when studying abroad. Fifty-six percent of U.S. students choose short-term programs (including summer, January term and any program of 2 to 8 weeks during the academic year). Short-term programs serve the largest number of Americans studying abroad, including community college students and others whose financial or academic needs preclude a longer stay; 68% of students at Associates Degree granting institutions who studied abroad did so for 8 weeks or less. *Source “[Americans Study Abroad In Increasing Numbers](#),” Institute of International Education, November 16, 2009*

Education abroad at community colleges has several key characteristics that distinguish it from education abroad at four-year institutions, and these differences necessitate a distinct approach to expanding study abroad opportunities for community college students. A special study conducted by the Institute on International Education in conjunction with the California Colleges for International Education published the following findings:

- Student interest in study abroad is growing rapidly at community colleges, as demonstrated by the 60 percent increase in the total number of students studying abroad since 2001. However, community college study abroad currently accounts for less than 3 percent of the U.S. total, whereas community colleges enroll close to 50 percent of all undergraduates in the U.S.
- Program cost remains one of the greatest difficulties in expanding community college education abroad. Eighty-three percent of respondents to the IIE/CCIE survey cited costs and fees to students as a leading challenge to expanding education abroad.
- The perception is that few college trustees and presidents support education abroad in their action items and budgets. Fifty-two percent of respondents to the IIE/CCIE survey cited that more leadership from the administration is a critical necessity for growth of education abroad programs.
- Growth in the number of community colleges offering education abroad exists despite a noted lack of a commitment to internationalization as shown by the American Council on Education (ACE) publication. This publication, *Mapping Internationalization on U.S. Campuses: 2008 Edition*, shows that 73 percent of community colleges did not include a commitment to internationalization in their mission statements in 2006, and 80 percent did not include internationalization as a top priority in their strategic plans.
- Dedicated education abroad office staffs are needed, as the workload often exceeds the hours provided by partial release time. Over 80 percent of respondents to the IIE/CCIE survey noted that even one additional part-time or full-time employee would help their programs grow.

Source: “Expanding Education Abroad at U.S. Community Colleges”, Institute for International Education, 2008

Workforce Factors

Labor Force and Employment

The unemployment rate increased in each county of the service area from 2008 to 2009, to 12.2% in Lucas County and over 10 percent in Hancock and Wood Counties.

The size of a county's labor force is an indication of economic health. It is influenced by both the economy and the size and composition of the population.

	Hancock County	Lucas County	Wood County	Ohio	USA
Labor Force CY2009	40,200	219,800	68,300	5,970,200	154,142,000
Labor Force CY2008	41,400	222,600	68,800	5,971,900	154,287,000
Labor Force CY2007	41,400	225,300	68,600	5,976,500	153,124,000
Employment CY2009	36,100	193,000	60,800	5,359,000	139,877,000
Employment CY2008	39,000	204,200	64,200	5,582,100	145,362,000
Employment CY2007	39,500	210,200	64,900	5,640,100	146,047,000
Unemployment Rate CY2009	10.3	12.2	10.9	10.2	9.3
Unemployment Rate CY2008	5.8	8.3	6.8	6.5	5.8
Unemployment Rate CY2007	4.5	6.7	5.4	5.6	4.6

The number of Worker Adjustment and Retraining Notification (WARN) notices in Hancock, Lucas and Wood Counties increased nearly 45% from CY2007-CY2008.

WARN Notices

	Hancock County	Lucas County	Wood County	Ohio
Employer WARN Notices CY2008	1	9	3	165
Employer WARN Notices CY2007	0	5	4	103
WARN Employees Affected CY2008	95	1,782	371	27,417
WARN Employees Affected CY2007	0	1,164	407	15,119

Worker Adjustment and Retraining Notification Act (WARN) provides protection to workers, their families and communities by requiring employers to provide notification 60 calendar days in advance of plant closings and mass layoffs.

Job losses will likely continue to moderate, although most economists expect the unemployment rate will peak above 10 percent sometime later in 2009. Employment will probably not bounce back in all sectors – or all states – evenly. According to HIS Global Insight, states such as Texas, Oklahoma, and Utah will be the quickest to recover, while Rust Belt States of Michigan, Ohio, and Indiana may take years to bounce back.

Source: "[*What You Need to Know About the May Jobs Report*](#)," *U.S. News & World Report*, June 5, 2009

A large portion of hard-to-fill positions are blue collar jobs. Nearly 20 percent of U.S. employers say they're having a tough time filling job openings, according to Manpower's 2009 talent shortage survey. (That figure, which is half what it was in 2006, should rise again as the economy recovers). The list of positions that are hardest to fill can help serve as a guide for some of the best job opportunities in the future. Although engineers and nurses lead Manpower's list of the 10 most in demand jobs in the United States, a large portion of the hard-to-fill positions are blue-collar jobs. Those described in the article include: manufacturing technician, auto mechanic, truck driver, aircraft mechanic, general maintenance worker, and electrician. *Source: "[6 Blue Collar Jobs for Career Switchers](#)," U.S. News & World Report, June 10, 2009*

High-tech or service-oriented job training is on track for today's economy. "Any community college that is training students to get into a high-tech or service-oriented job is very much on the right track in today's economy," says Laurence Shatkin, author of *150 Best Recession-Proof Jobs*. The article highlights jobs that do well in a bad economy: nurses, medical assistants and the various types of therapists; education, automotive and computer repair, air controllers, foreclosure specialists, collections, culinary arts, pastry arts, apartment industry jobs (such as leasing consultant, leasing manager, regional marketing manager, apartment manager, property operations manager, groundskeeper, and maintenance technician). *Source: "[Jobs that do well in a bad economy](#)," Community College Times, July 5, 2009*

Talent shortages will undermine economic recovery. As the global economy becomes more dependent on technology, workers will need more proficiency in science, technology, engineering, or mathematically based (STEM) jobs. To produce these talented workers, the U.S. educational system needs to work with community-based organizations to improve training for tomorrow's careers. *Source: "The Global Talent Crisis," The Futurist, Sep-Oct 2009, p.38*

The U.S. labor force could rise considerably in 2009 and 2010 with the addition of young people that previously opted out of the work scene and older workers delaying retirement. This means the number of people actually working and the number of people actively looking for work will increase. It means more people competing for jobs in the short-term, adding stress on U.S. job seekers. Increased competition also implies that the U.S. labor force will become more efficient as vacancies are filled by higher-caliber employees. Two factors are contributing to this: boom times were causing some young people to opt out of the work scene and more 50- and 60-somethings may realize they can't afford to retire and put it off. *Source: "Recession Could Lead to Labor-Force Growth in 2009," The Futurist, May-June 2009, pp.16-17.*

Retirees in the United States will increasingly return to work. One-third of American who retire are back on the job two years later, and growing numbers of retirees are choosing to start their own businesses. About one in five people and 40% of seniors, say they plan to continue working until they die, and nearly two-thirds of Americans say they doubt that retirement is possible for the middle class. *Source: "Trends Shaping Tomorrow's World, Part Two," The Futurist, May June 2008, p. 43*

Millennial Generation are more educated but less employed. The most detailed study to date of the 18- to 29-year-old Millennial generation finds this group probably will be the most educated in American history. But the 50 million Millennials also have the highest share that are unemployed

or out of the workforce in almost four decades according to the study, released today by the Pew Research Center. *Source: “[Study: Millennial generation more educated, less employed](#)”, USA Today, February 23, 2010*

Job Outlook

Employment drops by half in motor vehicle and parts industry since 2000. May brought yet another wave of steep job losses in the manufacturing sector. There were 30,000 jobs lost in the motor vehicles and parts industry alone. That industry has now seen employment drop by half since its peak in 2000. *Source: “[What You Need to Know About the May Jobs Report](#),” U.S. News & World Report, June 5, 2009*

Healthcare forecasted to be one of Ohio’s fastest growing economic sectors in the next 10 years. Health care -- comprised of ambulatory health care, hospitals, and nursing and residential care -- accounts for approximately one out of every eight payroll jobs in Ohio. It is expected to be one of the fastest-growing sectors of the economy over the next ten years. *Source: “[Health Care Employment in Ohio Components of a Growth Sector](#)”, Ohio Department of Jobs and Family Services, 2009 Report.*

Jobs for Tomorrow - The hottest jobs for 2016: network systems and data communications analysts (53.4% more U.S. employees than in 2006), personal and home care aides (up 50.6%); computer software engineers (up 44.6%); and veterinary technologists/technicians (up 41.0%). The coldest jobs for 2016: photographic processing machine operator (49.8% fewer U.S. employees than in 2006); file clerk (down 41.3%); electrical and electronic equipment assembler (down 26.8%); computer operator (down 24.7%). *Source: “U.S. Employment Ups and Downs, 2006-2016,” The Futurist, Sep-Oct 2009, p.30*

Many of the occupations projected to grow the fastest between 2008 and 2018 relate to health care and care of the elderly: home health aides, personal and home care aides, physical therapist assistants and aides, dental hygienists, veterinary technologists and technicians, dental assistants, and medical assistants. *Source “[Charting the Projections: 2008-2018](#)”, Occupational Outlook Quarterly, U.S. Department of Labor, Winter 2009-2010*

Most job openings over the period 2008-2018 will be in occupations that require short-term on the job training. Occupations requiring moderate-term on the job training and those requiring a bachelor’s degree are also expected to have a large share of the projected job openings. *Source “[Charting the Projections: 2008-2018](#)”, Occupational Outlook Quarterly, U.S. Department of Labor, Winter 2009-2010*

Job opportunities are coming in the nuclear power industry. With a coming wave of retirements and the potential for thousands of new jobs if plans for several nuclear plants go forward, “we’ve seen a tremendous growth in the number of programs ... to prepare the next generation of workers,” says Carol Berrigan, senior director of industry infrastructure at the Nuclear Energy Institute (NEI), which represents the industry in Washington. After helping to boost the number of nuclear engineers coming out of colleges, NEI has recently turned its attention to building up the pipeline of technical workers coming out of community colleges. Just

four years ago, there were only a handful of nuclear programs at community colleges; now there are nearly 50. *Source: “[When Careers Need Reinvention](#),” Christian Science Monitor, July 7, 2009*

Americans are spending big bucks on their pets, making jobs as a veterinarian or vet tech recession-proof, according to a report by CBS News. *Source: “[CBS News: Vet tech jobs steady during recession](#),” CBS News February 24, 2009*

The desalination industry will expand greatly. Thanks to looming freshwater shortages, desalination is likely to become one of the world’s largest industries. Ultimately, inland cities are likely to face more problems than coastal areas, including the necessity of huge pipelines. *Source: “The Desalination Solution,” The Futurist, May-June 2008, p. 23*

Progress in the solar industry in Ohio may be much slower than originally thought.

In the clean energy race, China is quickly acting on its strategy to dominate the solar industry. By pushing down solar panel prices and building assembly plants on U.S. soil, American solar manufacturers may not be able to compete for long. (*Source: “[China's Solar Industry Poised to Leave U.S. in the Dust](#),” Breakthrough Institute, August 26, 2009*) China has low labor costs, low overhead costs, and enormous help from the government so it’s difficult to compete in the United States. (*Source: “[Recession Hits America’s Solar Industry](#),” Fox News, January 6, 2010*) First Solar Inc. Chairman Michael Ahearn, who steered the solar-panel maker into the S&P 500 index after it was funded by the Wal-Mart Stores Inc. family fortune, has sold more than 40 percent of his holding for \$142 million. The sale is an indication that there are strong headwinds in the industry. (*Source: “[First Solar chief sells 40% of shares in firm](#),” The Toledo Blade, February 26, 2010.*) Removal of the property tax on solar companies and the renewal of Ohio's Third Frontier effort are crucial for economic development progress this year. (*Source: “[Pro-solar bills on the horizon](#),” The Toledo Blade, March 10, 2010*) Although American solar panel manufacturing may be hit hard by China, there are still marketing, distribution, installation and training functions in the US that will be needed.

Caregiver training is key to homecare shift. As states expand efforts to promote home and community-based long-term care services as a less expensive option to nursing home care, caregiving advocates see community colleges as the go-to sources to ensure professionals and family members are being properly trained to provide care. *Source: “[Caregiver training is key to home care shift](#)”, Community College Times, March 26, 2010*

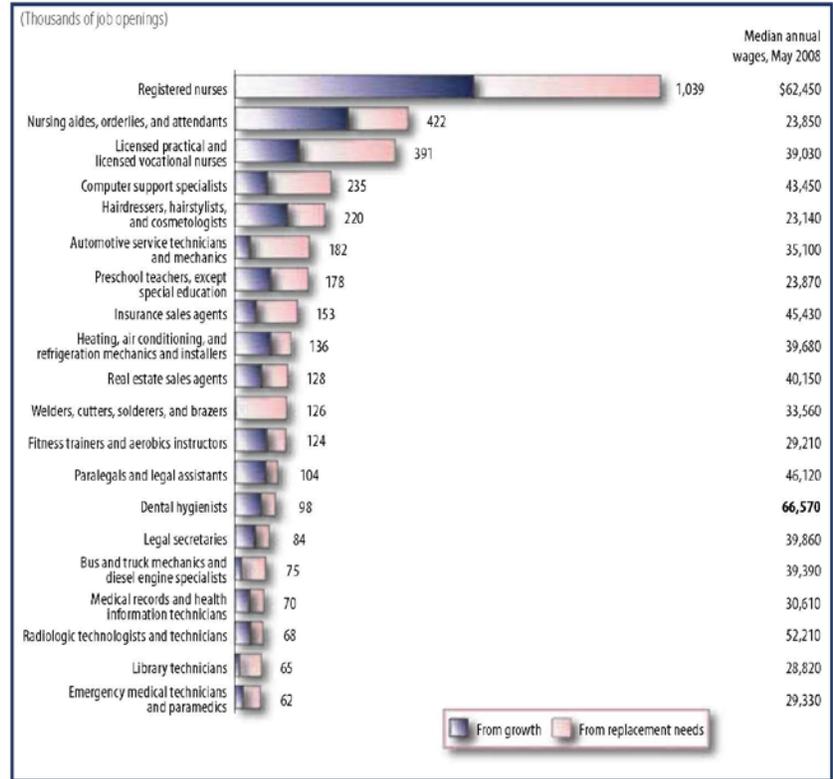
Security, risk management are hot IT areas. Computer network architecture and designs garner the most attention among job seekers looking into the IT industry because the end products are more visible to computer users. But network security and risk management are the areas expected to have the greatest demand for skilled workers over the next three to five years, according to a new survey by computer network giant Cisco. *Source: “[Security, risk management are hot IT areas](#)”, Community College Times, March 22, 2010*

Occupations that have the most growth and that usually require an associate’s degree or postsecondary vocational award over the period 2008-2018 are largely related to healthcare, reflecting the growing medical needs of an aging population. *Source “[Charting](#)*

Occupational employment

Associate degree or postsecondary vocational award

Occupations that have the most job openings and that usually require an associate degree or postsecondary vocational award, projected 2008–18



Over the 2008–18 decade, more than 1 million job openings are expected for registered nurses seeking employment in the occupation for the first time.

Linking Education to Employment

U.S. Department of Labor supports pathway programs at community colleges. The U.S. Department of Labor’s fiscal year 2010 budget requests \$135 million for a Career Pathways Innovation Fund that will continue the support for community colleges provided by Community-Based Job Training Grants, but will focus on career pathway programs at community colleges. The request is a \$10 million increase over fiscal year 2009 funding for the Community-Based Job Training Grants program.

Career pathway programs help individuals of varying skill levels enter and pursue rewarding careers in high-demand and emerging industries. These programs are clear sequences of coursework and credentials, each leading to a better job in a particular field, such as health care, law enforcement and clean energy. The Department of Labor will work with the U.S. Department of Education to develop and implement this initiative. *Source: “[O&A with U.S. Labor Secretary Hilda Solis](#),” *Community College Times*, June 18, 2009*

Top five learning outcome areas cited by business executives as most in need of increased emphasis by higher education are science and technology, applied knowledge in real-world settings through internships and other hands-on experiences, critical thinking and analytical reasoning skills, communication skills, and global issues. In 2006, Hart Research conducted a survey on behalf of the AAC&U among business leaders in which employers were asked to assess the emphasis that colleges and universities are putting on learning outcomes. Business executives felt the following areas were most in need of increased emphasis by higher education institutions:

- Science and technology (82%)
- Applied knowledge in real-world settings through internships and other hands-on experiences (73%)
- Critical thinking and analytical reasoning skills (73%)
- Communication skills (73%)
- Global issues (72%)

Source: “[Learning and Assessment: Trends in Undergraduate Education](#),”

A survey among members of the Association of American Colleges and Universities, April 2009 conducted by Hart Research Associates

Companies seek advanced skills in employees: critical thinking and problem solving, communication, collaboration and creativity and innovation will become even more important. As the U.S. economy begins to show signs of improvement, executives say they need a workforce fully equipped with skills beyond just the basics of reading, writing and arithmetic in order to grow their businesses. Skills such as critical thinking and problem solving, communication, collaboration and creativity and innovation will become even more important to organizations, according to a new survey conducted by the [American Management Association](#) (AMA). Proficiency in reading, writing, and arithmetic has traditionally been the entry-level threshold to the job market, but the new workplace requires more from its employees, according to AMA. Employees need to think critically, solve problems, innovate, collaborate, and communicate more effectively—and at every level within an organization. *Source: “[Companies Seek Advanced Skills in Employees](#),” *Community College Times*, April 15, 2010*

Better and differently educated workforce needed for the 21st century. The U.S. Department of Labor predicts “occupations that usually require a postsecondary degree or award are expected to account for nearly half of all new jobs from 2008 to 2018.” The 21st century workplace requires both a better-educated and a differently educated work force. *Sources: “[Employment Projections—2008–18](#)”, *Bureau of Labor Statistics*, Dec. 10, 2009; “[The Skills Imperative 4](#)”, *Institute for a Competitive Workforce*, U.S. Chamber of Commerce (2008); “[Tough Choices or Tough Times](#)”, *National Center on Education and the Economy*, p 7-9, 2007; “[Results that](#)*

[Matter - 21st Century Skills and High School Reform](#)", *Partnership for 21st Century Skills*, 2006, p2-6

Succeeding in future niche careers may mean choosing an unusual major. An increase in unusual college majors may foretell the growth of unique new career specialties. Instead of simply majoring in business, more students are beginning to explore niche majors such as sustainable business, strategic intelligence, and entrepreneurship. Other unusual majors that are capturing students' imaginations: neuroscience, nanotechnology, computer and digital forensics, and comic book art. (The market for comic books and graphic novels in the United States has grown 12% since 2006. *Source: World trends & Forecasts, The Futurist, Sep-Oct 2008, p. 8*

Professional knowledge will become obsolete more quickly. An individual's professional knowledge is becoming outdated at a much faster rate than ever before. Most professionals will require continuous instruction and retraining. Rapid changes in the job market and work-related technologies will necessitate job education for almost every worker. At any given moment, a substantial portion of the labor force will be in job retraining programs. *Source: "Trends Shaping Tomorrow's World, Part Two," The Futurist, May-June 2008, p. 41*

Superlongevity will have a growing influence on career choices. Realizing that their careers might extend for 50 years or more, younger careerists, even those not yet ready for full-time employment, will experiment with unique career patterns. More young people will opt not only to pursue postgraduate education; they may remain in school into their 20s and early 30s in order to train for the complex jobs required in our advanced society. More people in their 50s will also return to school to start new careers. **Source:** *"The Superlongevity Revolution: How It Will Change Our Lives," The Futurist, Nov-Dec 2005, p.16*

New approaches needed for aligning workforce development with higher education. The U.S. is undersupplied with college graduates. Producing more college graduates has become critical to the economy, and completing college has become an essential prerequisite to individual success. The Lumina Foundation, through their research, suggests three ideas to address the need to better align workforce development and higher education: accelerated associate degrees, seamless and transparent credentials; and credit for prior learning. *Source: "[Fostering Economic Recovery through Postsecondary Education](#)," Lumina Foundation, December 16, 2009*

Human Resources

HR Scenarios for 2009 and beyond. Based on trends found in the Hay Group's survey series, if the global downturn continues to deepen, the following scenarios are real possibilities for the rest of 2009 and beyond:

- An increasing number of organizations will impose salary freezes
- A growing number of employees will face the choice of either accepting pay cuts or facing job losses
- Organizations will increasingly look to cut their contributions to pension schemes, and the trend away from defined benefit schemes will accelerate

- Other benefits, such as medical insurance, which have been spared review so far, will come under scrutiny.

The primary concern for employees is job security, while the two primary concerns for employers are the ability to retain top talent and employees with critical skills, and the ability of organizations to maintain an engaged and motivated workforce.

Source: "[*New Realities or Temporary Shifts?*](#)," *HR Horizons*, Volume 4, Issue 3, July 2009

The percentage of workers planning to work after they retire is increasing.

EBRI's 2009 Retirement Confidence Survey executive summary, states "Economy drives confidence to record lows; many looking to work longer." While the average age at retirement is likely to continue to increase and many workers may work until their planned retirement age, others could find themselves retiring sooner. The survey found that a large proportion of retirees leave the workforce earlier than planned (47 percent).

In addition, more workers are planning to supplement their income in retirement by working for pay. The percentage of workers planning to work after they retire has increased to 72 percent in 2009, up from 66 percent in 2007 and 63 percent in 2008.

Source: "[*New Realities or Temporary Shifts?*](#)," *HR Horizons*, Volume 4, Issue 3, July 2009

The number of U.S. jobs filled by telecommuters could grow nearly fourfold to 19 million by 2012. Wider broadband will bring the office home, giving workers and employers more flexibility. Research shows that if all Americans improved the broadband connection, allowing more telecommuting, the result would be a 4% reduction in carbon-dioxide emissions, \$5 billion saved in lower road expenditures, and 1.5 billion commute hours recaptured. Source: *World Trends & Forecasts, The Futurist*, July-Aug 2009, p.13.

U.S. Senior citizens are postponing retirement due to financial concerns. Even before the recession, large numbers of baby boomers and pre-baby boomers who had not actually saved enough for retirement were unexpectedly compelled to return to the workforce. Now, many more may opt to simply stay in their jobs. Source: *World Trends & Forecasts, The Futurist*, May-June 2009, p.16.

Decisions about retirement increasingly include such issues as managing health-care costs, developing an income-withdrawal strategy, and even—for the recently retired—“unretiring.” About 40% of financial-planning clients who are in or near retirement are asking for help in making lifestyle changes, reports the Financial Planning Association. Fear of outliving one's income has become a growing concern, especially as the forces of a weak economy and soaring health-care costs converge. Demand for personalized approaches to planning has grown: Nearly half of the planners surveyed reported gaining between four and ten new retirement income clients in the last year. Source: *Financial Planning Association*, www.fpanet.org .

Most middle-aged adults are rethinking retirement plans. Having seen their retirement nest eggs shrink the most during the recession, just over half of all working adults ages 50 to 64 say they may delay their retirement -- and another 16% say they never expect to stop working. Overall, 37% of full-time employed adults of all ages say they have thought in the past year about postponing their eventual retirement. This proportion swells to 52% among fulltime

workers ages 50 to 64. Members of this so-called "Threshold Generation" are twice as likely as younger workers to say they never plan to retire (16% vs. 8%). Moreover, the Thresholders who do plan to retire someday say they plan to keep working, on average, until they are age 66 -- when they would be four years older than the age at which current retirees age 65 or older report that they stopped working. *Source: "[Most Middle-Aged Adults Are Rethinking Retirement Plans](#)," Pew Research Center, May 28, 2009*

Internal Scan Narrative

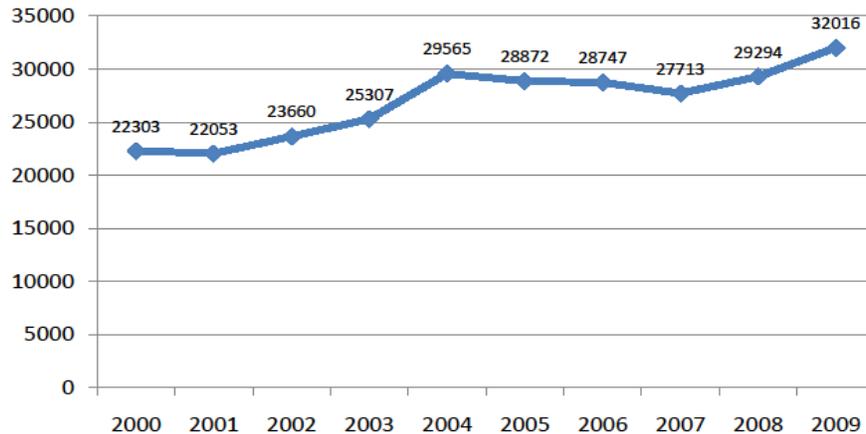
The Internal Scan describes the institution's enrollment, retention, and engagement trends and events. This strategic intelligence is useful in determining targets as well as determining changes necessary for improvement. It enables decision-makers to understand current and potential changes taking place in our internal environment and alerts them to potentially significant internal changes before they crystallize.

Enrollment

Headcount

Over the period 2000 to 2009, Owens unduplicated headcount for an academic year increased 43.6% from 22,303 to 32,016.

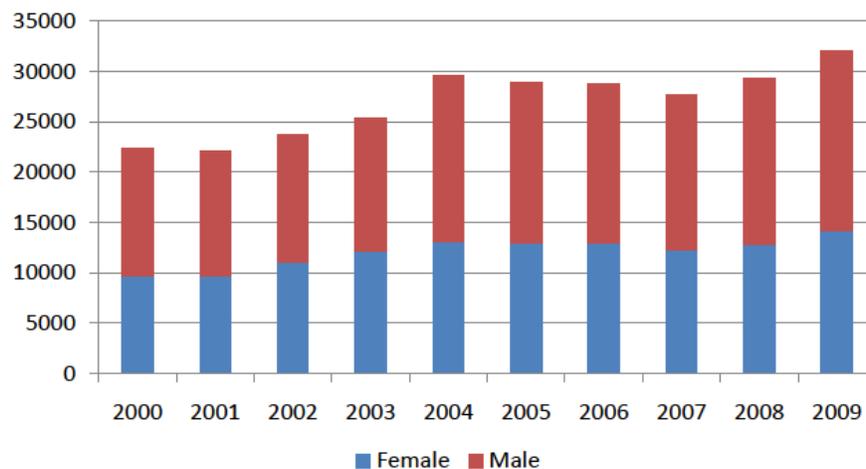
Total Headcount Academic Year



Source: Ohio Board of Regents, HEI Student Enrollment Query
Office of Institutional Research, April 2010

The percent of females increased from 2000 to 2003 from 43.4 % to 47.7 %; however, from 2005 – 2009, the percentage dropped off and then fluctuated only slightly between 43.7% and 45.1%

Headcount by Sex Academic Year

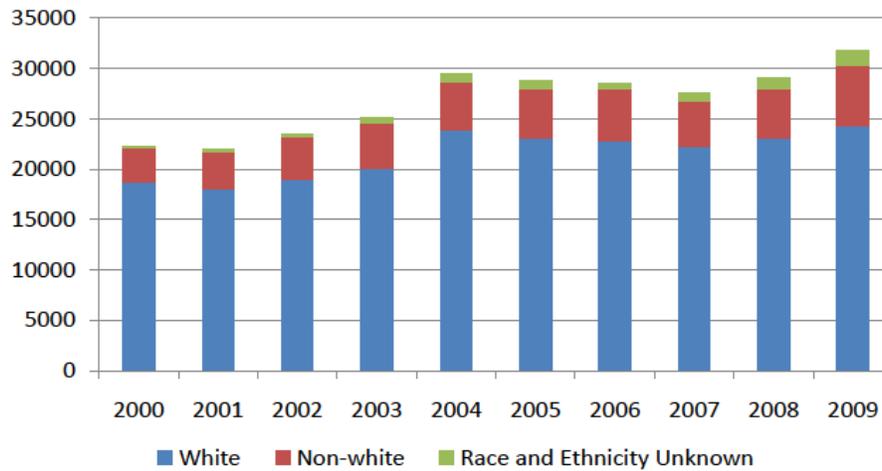


Source: Ohio Board of Regents, HEI Student Enrollment Query
Office of Institutional Research, April 2010

Over the period 2000-2009, the percent of Non-White students increased from 15.3% to 18.7%

Headcount by Race/Ethnicity

Academic Year

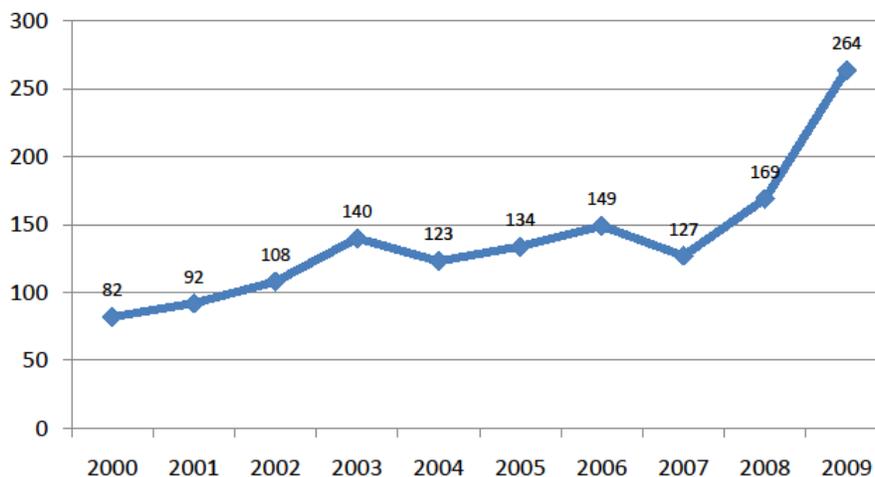


Source: Ohio Board of Regents, HEI Student Enrollment Query
Office of Institutional Research, April 2010

The headcount for non-resident aliens (international students) increased from 82 in 2000 to 264 in 2009.

Headcount Non-Resident Alien

Academic Year

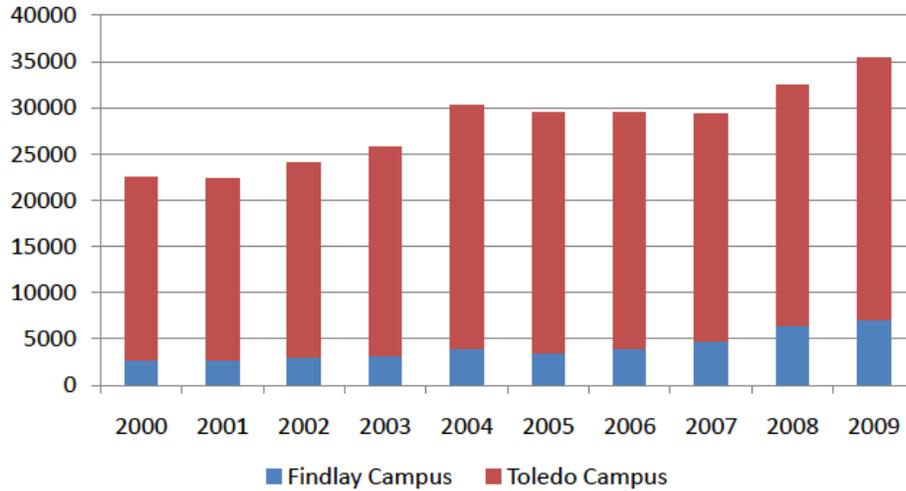


Source: Ohio Board of Regents, HEI Student Enrollment Query
Office of Institutional Research, April 2010

From 2000-2009, the headcount for the Findlay campus increased 163% from 2,061 to 7,060. The Toledo campus increased 42.9% from 19,862 to 28,383.

Headcount by Campus

Academic Year

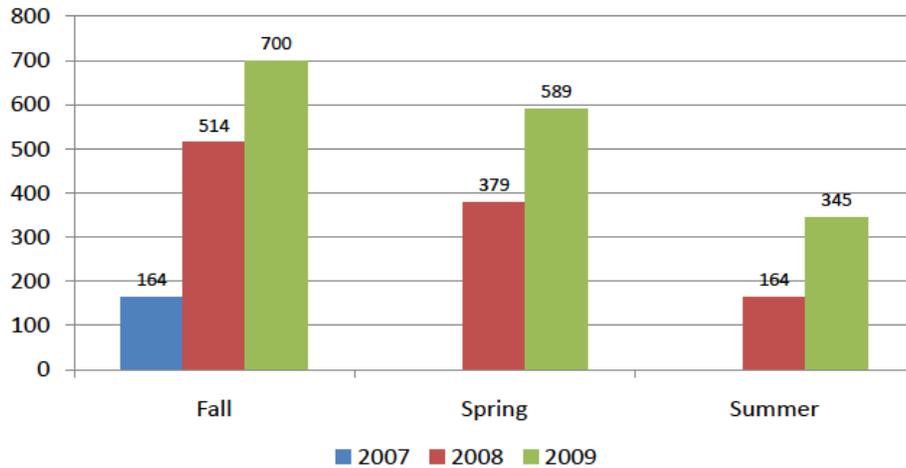


Source: Ohio Board of Regents, HEI Student Enrollment Query
Office of Institutional Research, April 2010
Note: Students attending both campuses are counted twice

Courses were offered at The Learning Center at The Source starting Fall 2007. The Fall Semester headcount of students attending the Source increased from 164 in 2007 to 700 in 2009.

Headcount for The Source

Semester



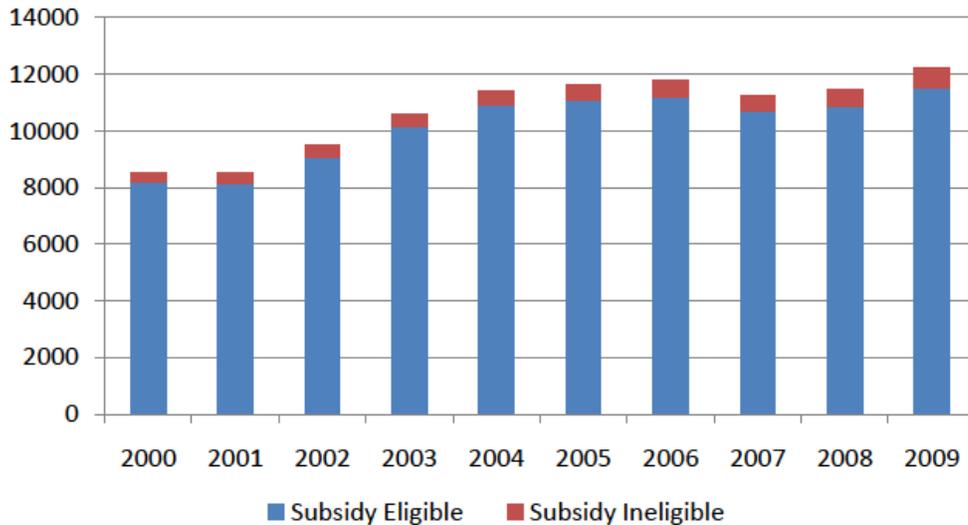
Source: Banner Source Enrollment Query, Data is end of term
Office of Institutional Research, April 2010

Full-time Equivalent Students (FTE)

The FTE Enrollment increased nearly 43% from 8545 to 12213 over the period 2000 through 2009. Subsidy Eligible FTE increased from 8189 to 11545 and Subsidy Ineligibles increased from 357 to 668.

Annual FTE by Subsidy Category

Academic Year



Source: Ohio Board of Regents, HEI Course Enrollment Query
Office of Institutional Research, April 2010

The proportion of Annual FTE is shifting by course level with the most change occurring with increases in general studies and decreases in technical. Developmental peaked in 2003 and steadily declined until 2009.

Annual FTE by Course Level

Academic Year

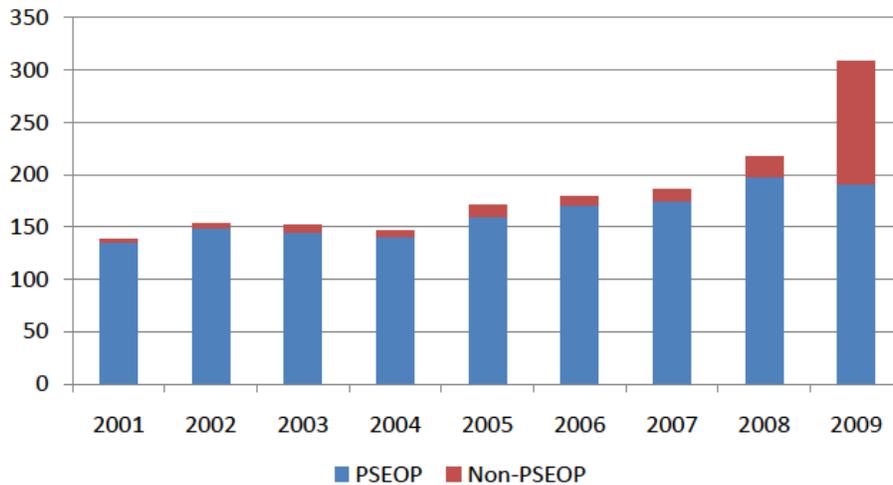
Fiscal Year	Course Level							
	Baccalaureate		General Studies		Technical		Developmental	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2000	176.9	2.1%	3465.6	40.6%	3847.7	45.0%	1054.9	12.3%
2001	178.1	2.1%	3438.7	40.3%	3726.7	43.7%	1181.5	13.9%
2002	201.5	2.1%	4059.0	42.8%	3836.9	40.5%	1385.3	14.6%
2003	226.9	2.1%	4637.3	43.8%	4056.5	38.3%	1665.6	15.7%
2004	256.5	2.3%	5128.8	45.0%	4396.6	38.6%	1610.4	14.1%
2005	238.6	2.1%	5427.6	46.7%	4475.6	38.5%	1474.7	12.7%
2006	245.0	2.1%	5321.2	45.0%	4858.7	41.1%	1396.0	11.8%
2007	225.4	2.0%	5169.2	46.0%	4650.1	41.4%	1188.4	10.6%
2008	246.5	2.1%	5266.7	45.9%	4827.4	42.0%	1140.5	9.9%
2009	268.3	2.2%	5472.0	44.8%	5106.5	41.8%	1366.1	11.2%

Source: Ohio Board of Regents, HEI Course Enrollment Query
Office of Institutional Research, April 2010

Annual FTE for High School Enrollees increased from 138.1 in 2001 to 307.8 in 2009. From 2001 through 2008, high school enrollees were predominantly postsecondary option (PSEOP) students. In 2009, there was a greater than expected increase in non-PSEOP students.

Annual FTE for High School Enrollees

Academic Year

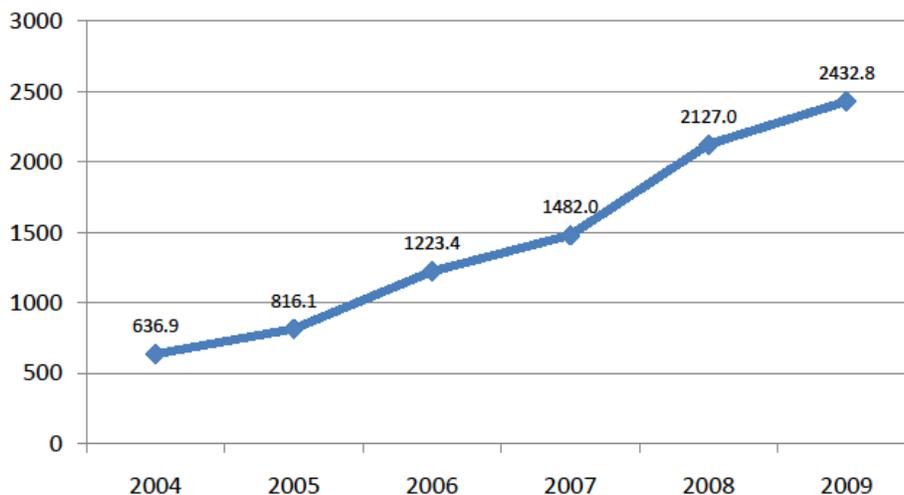


Source: Ohio Board of Regents, HEI Course Enrollment Query
Office of Institutional Research, April 2010

In 2009, the Annual FTE for Distance Learning was nearly three times what it was in 2004, 2432.8 versus 636.9.

Annual FTE for Distance Learning

Academic Year



Source: Ohio Board of Regents, HEI Distance Learning Enrollment Query
Office of Institutional Research, April 2010

Retention

Below are overview highlights from a recent report published by the Office of Institutional Research. The purpose of the report is to aid Owens' retention efforts by providing an initial look at first-year retention trends. Please note the results are for first-time, degree- or certificate-seeking students who begin in the fall (or immediately preceding summer), and retention is defined as re-enrollment in at least one for-credit course the following spring or fall term.

- 74.5% of students who entered the College in Fall 2007 re-enrolled Spring 2008
- 49.4% of students who entered the College in Fall 2007 re-enrolled Fall 2008
- Most students who return to the College return to the same school in which they started
- On average, retention rates for full-time students (53.1%) are higher than for part-time students (39.6%)
- Retention rates for female students (50.0%) are on average higher than for male students (46.6%)
- Of the different ethnic categories, White students have the highest average retention rate (52.6%) and Black students have the lowest (30.4%)
- Black males have the lowest average return rate of any gender and ethnic category (30.0%) and White females have the highest (54.3%)
- Average return rates are highest among 18- and 19-year-olds (58.6% and 54.1%, respectively)
- On average, return rates are highest among students with a first-term GPA between 3.01 and 3.50 (75.6%) followed by those with a first-term GPA between 3.51 and 4.00

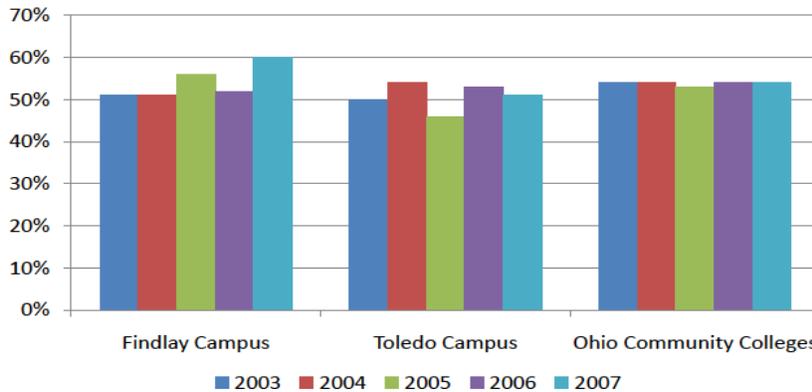
Source: "[First-Time Certificate- and Degree-Seeking Students Retention Report, Fall Entry Cohorts: 2002 – 2008](#)", Owens Community College, Office of Institutional Research, April, 2010

According to the Ohio Board of Regents report, "First to Second Year Retention at Ohio's Public and Private Colleges and Universities", first-to-second-year retention rates vary by type of institution. This variation reflects the various levels of academic preparation of incoming students as well as the diverse missions of Ohio's campuses. At public institutions in Ohio, 69% of first-time, full-time, degree-seeking freshmen returned to the same institution in their second year. An additional 8% transferred to another institution in Ohio, resulting in a statewide retention rate of 77%. The statewide retention rate at community colleges was 59%.

First to Second Year Retention for First-time, Full-time, Degree Seeking Freshman Retained at the Same Institution is higher for the Findlay Campus compared to the Toledo Campus, and most recently, above the percentage for the Ohio Community College Sector. The Toledo Campus has a percentage consistently below the Community College Sector. Please note the cohort, first-time, full-time, degree seeking freshman, range from 27% to 34% of First Year Students for the Findlay Campus, 16% to 24% of First Year Students for the Toledo Campus, and 35% to 38% of First Year Students for the Community College Sector.

First to Second Year Retention

First-Time, Full-Time, Degree Seeking Freshman, Fall 2003-Fall 2007 Cohorts Retained at Same Institution

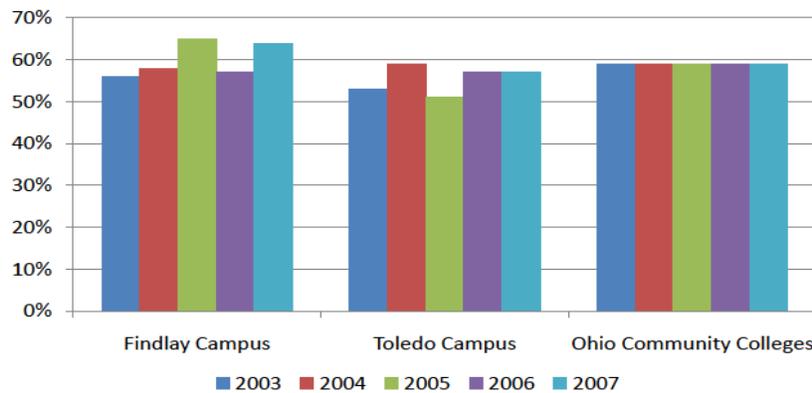


Source: Ohio Board of Regents, "First to Second Year Retention at Ohio's Public and Private Colleges and Universities", February 2010
Office of Institutional Research, April 2010

First to Second Year Retention for First-time, Full-time, Degree Seeking Freshman retained statewide at an Ohio College or University is higher for the Findlay Campus compared to the Toledo Campus, and most recently, above the percentage for the Ohio Community College Sector. The Toledo Campus has a percentage consistently below the Community College Sector.

First to Second Year Retention

First-Time, Full-Time, Degree Seeking Freshman, Fall 2003-Fall 2007 Cohorts Retained Statewide



Source: Ohio Board of Regents, "First to Second Year Retention at Ohio's Public and Private Colleges and Universities", February 2010
Office of Institutional Research, April 2010

Academic Preparation

Increasing enrollment in higher education is an important step toward increasing higher education achievement in Ohio, but it is equally important that those who begin higher education be prepared to succeed. Preparation for college varies widely among students. Some students begin college-level work while in high school. Other students are not ready for college-level work when they get to college and take remedial courses to become fully prepared.

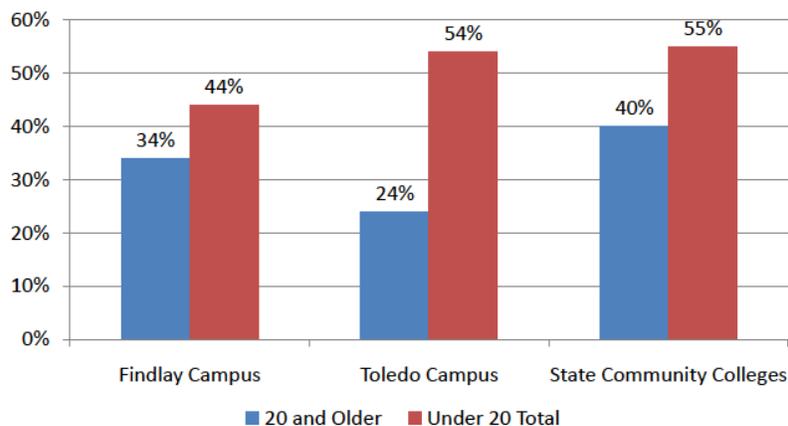
Student age and level of high school preparation are among the factors that influence the level of remedial course enrollment. In the State Community College Sector, as well as at Owens Community College, a higher percentage of students under age 20 take remedial courses compared to students age 20 and older. Although the State of Ohio includes developmental education in its remedial figures, distinctions can be drawn between developmental education, which is “refresher” education, and true remedial education, which is due to inadequate preparation. Older students who graduated from high school several years prior to enrolling in college may need refresher courses even though they had good academic preparation in high school. When a student attending college right out of high school requires remediation, it is more likely the result of inadequate high school and/or earlier preparations, among other factors.

The following charts compare the percentage of Owens students taking remedial coursework to State Community Colleges for Math, English, English or Math, and English and Math.

First year students under the age of 20 are more likely to take Developmental Math than students age 20 and older. The Toledo Campus has a percentage of first year students under 20 taking remedial Math that is nearly the same as that of the state community college sector (54% vs. 55%). However, the percentage of those 20 and older taking remedial math is 16 percentage points lower than the state community college percentage (24% vs. 40%).

Percent of First Year Students Taking Remediation in Math

FY 2007

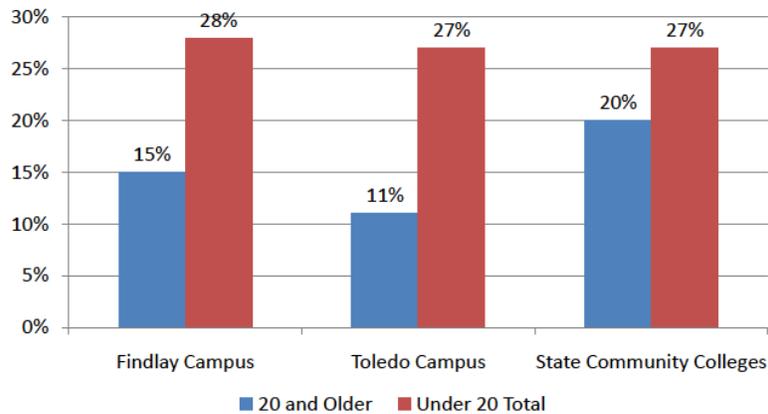


Source: Ohio Board of Regents, "Preparation for College Level Coursework at University System of Ohio Institutions", January 2009
Office of Institutional Research, April 2010

First year students under 20 are more likely to take developmental English than students age 20 and older. The percentage of first year students age 20 and older at Owens is less than the state community college percentage (15% and 11% vs. 20%).

Percent of First Year Students Taking Remediation in English

FY 2007

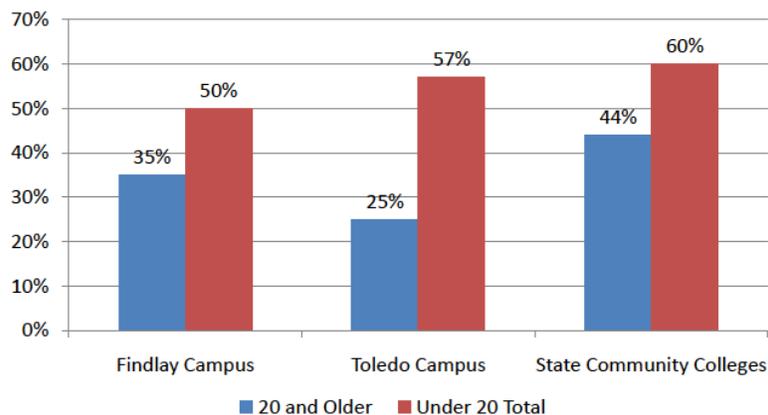


Source: Ohio Board of Regents, "Preparation for College Level Coursework at University System of Ohio Institutions", January 2009
Office of Institutional Research, April 2010

Sixty percent of first year students at state community colleges take remediation in Math or English compared to 57% at the Toledo campus and 50% at the Findlay Campus. The percentage of first year students age 20 and older at Owens is less than the state community college percentage (35% & 25% vs. 44%).

Percent of First Year Students Taking Remediation in Math or English

FY 2007

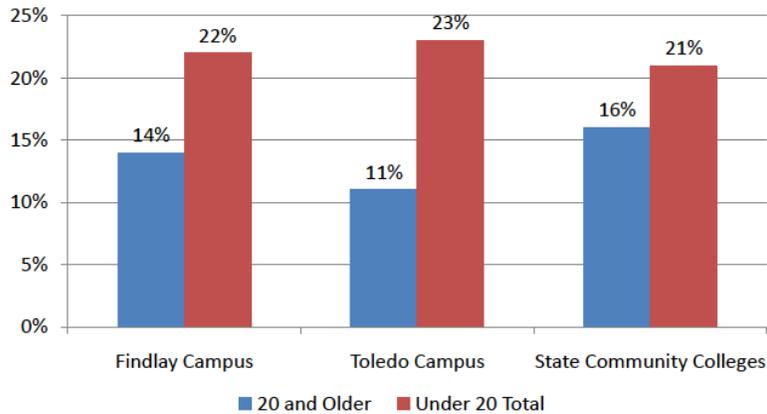


Source: Ohio Board of Regents, "Preparation for College Level Coursework at University System of Ohio Institutions", January 2009
Office of Institutional Research, April 2010

The percentage of first year students under 20 taking remediation in Math and English at Owens is nearly the same as the percentage of the state community college sector (22% and 23% vs. 21%). For the 20 and older age group, the Toledo campus has a lower percentage than either the Findlay Campus or the State Community College Sector.

Percent of First Year Students Taking Remediation in Math and English

FY 2007



Source: Ohio Board of Regents, "Preparation for College Level Coursework at University System of Ohio Institutions", January 2009
Office of Institutional Research, April 2010

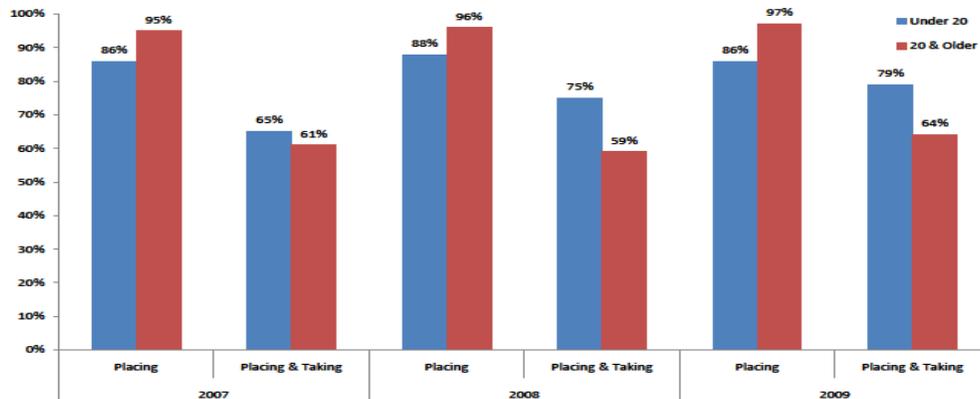
Placement vs. Enrollment in Remedial Courses

Some colleges in Ohio require students who are not ready for college-level work to take remedial courses before they can enroll in college-level courses. Owens currently does not have that requirement. The following charts show the relationship between Owens students who test into developmental courses and those who enroll in the courses they test into.

Students 20 and older are more likely to test into developmental math than students under age 20. However, a greater percentage of students under 20 who place into developmental math take it their first semester.

Percentage of First-Time Students Placing Into and Taking Developmental Math Their First Term

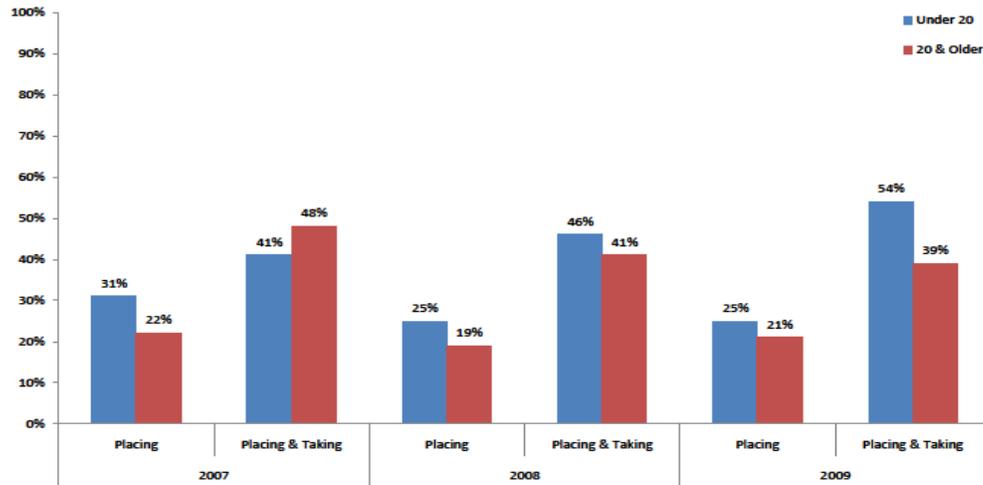
Fall 2007 - Fall 2009



Source: Office of Institutional Research, April 2010

Students under 20 are more likely to test into developmental reading than students 20 and older. In 2008 & 2009, students under 20 who tested into developmental reading were more likely to take it their first semester than students 20 and older.

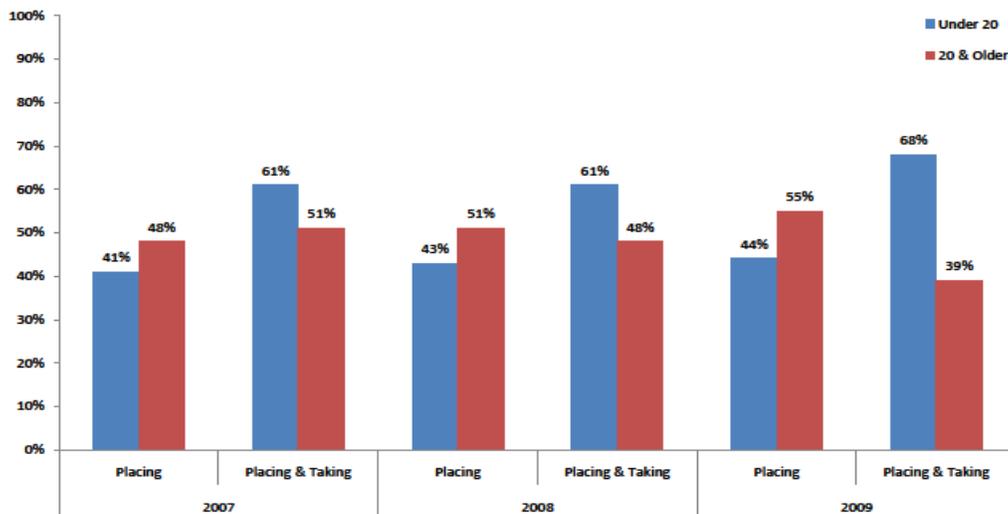
Percentage of First-Time Students Placing Into and Taking Developmental Reading Their First Term
Fall 2007 - Fall 2009



Source: Office of Institutional Research, April 2010

Students 20 and older are more likely to test into developmental writing than students under 20. However, a greater percentage of students under 20 who place into developmental writing take it their first semester.

Percentage of First-Time Students Placing Into and Taking Developmental Writing Their First Term
Fall 2007 - Fall 2009



Source: Office of Institutional Research, April 2010

Student Engagement

Owens Community College participated in the Community College Survey of Student Engagement (CCSSE) during Spring 2009. CCSSE provides information about effective educational practice in community colleges and assists institutions in using that information to promote improvements in student learning and persistence. The survey instrument, the Community College Student Report (CCSR), is designed to capture student engagement as a measure of institutional quality. Highlights of the findings for each of the seven key topics covered in the survey follow. For the complete Overview of 2009 Survey Results for Owens Community College, [click here](#). For benchmark survey results, [click here](#).

Educational Goals

Community colleges have multiple missions and goals, as do their students. Students responding to the survey are given the opportunity to mark *Primary Goal*, *Secondary Goal*, or *Not a Goal* in response to a list of possible goals for attending their particular college. As a result, many students mark more than one primary goal: therefore, the percentages in the table below do not sum to 100%.

As seen in Table 1, students identify various educational goals. Sixty-seven percent of student respondents identify obtaining an associate degree as a primary goal. Fifty-two percent are interested in obtaining or updating job-related skills, while 37.6% are primarily interested in transferring to a 4-year college or university. Thirty-two percent aspire to complete a certification program, while 34.8% of respondents seek to change careers.

Table 1: Educational Goals

	Primary Goal	Secondary Goal	Not a Goal
Complete a certification program	32.3	23.3	44.3
Obtain an associate degree	67.1	18.7	14.2
Transfer to a 4 year college or university	37.6	30.3	32.1
Obtain or update job-related skills	52.0	23.9	24.1
Self-improvement/personal enjoyment	40.5	36.0	23.5
Change careers	34.8	16.8	48.4

Time on Task

Students' behaviors contribute significantly to their learning and the likelihood that they will attain their educational goals. "Time on Task" is a key variable, and there are a variety of settings and means through which students may apply themselves to the learning process. As the following table illustrates, part-time students spend more time working for pay, 21 or more hours per week, than their full-time counterparts (67.5% vs. 49.3%). They also spend less time preparing for class than full-time students; 46.8% of part-time students spend 6 or more hours per week preparing, as opposed to 62.1% of full-time students.

Table 2: Time on Task

	Part-time			Full-time		
	5 hours or fewer	6-20 hours	21 or more hours	5 hours or fewer	6-20 hours	21 or more hours
Preparing for class	53.2%	40.1%	6.7%	37.9%	51.5%	10.6%
Working for pay	19.1%	13.5%	67.5%	28.9%	21.7%	49.3%
Participating in college-sponsored activities	96.8%	2.4%	0.8%	93.6%	3.2%	3.2%

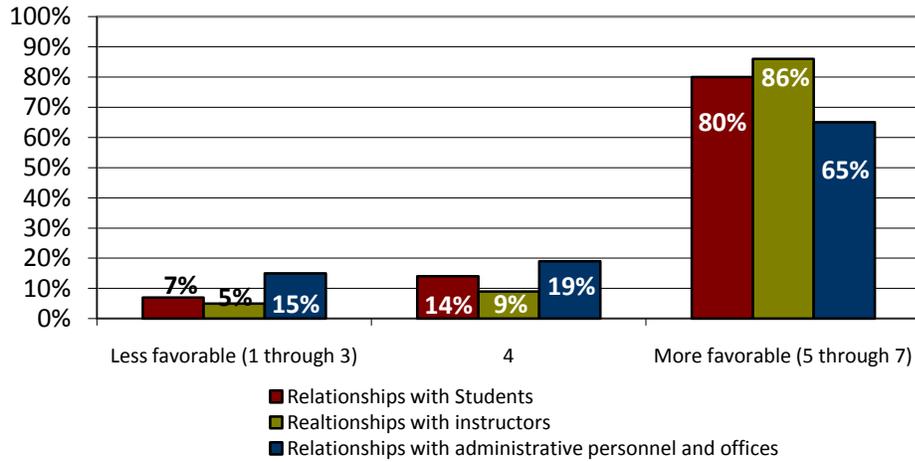
Although there are significant differences in the ways part-time and full-time students spend their time, these findings highlight the competing priorities facing all students attending Owens Community College. Finally, there is minimal participation in college-sponsored activities by all students.

Relationships

Many educators believe in the power of their individual connections to students – a belief that is supported by higher education research as well. In point of fact, the level of student-faculty interaction is one of the most powerful predictors of student persistence in college. And, in numerous focus groups conducted with community college students, it was found that when asked to cite the factor that was most important in helping them stay in school and succeed there, students inevitably talk about *relationships*. Various items on the survey can address the level and extent of students’ relational experience while attending the college. Item 4q on the survey asks students to indicate how often they worked with instructors on activities other than coursework. Just over three-fourths (76.9%) indicated they “Never” engaged in such activities. When asked how much their college encouraged contact among students from different economic, social, and or racial or ethnic backgrounds, 43.8% stated that this occurred “Quite a bit/Very much”. About seventy percent indicated that their college provided “Some/Very little of the support needed to thrive socially while only 8.2% indicated this occurred “Very much”. Finally, 79.6% of their friends are “Quite a bit/Extremely” supportive of their attending the college while 87.9% of their families were supportive of this decision.

Figure 1 highlights results from item 11 on the survey, which asks specifically about students’ relationships with other students, instructors, and administrative personnel and offices at the college. Regarding relationships with other students, respondents judged the quality of their relationships quite favorably with the highest rating of 5-7 given by 79.8%. An even higher percentage (86.2%) gave favorable ratings to the quality of the relationships with instructors, while relationships with administrative personnel and offices were given a slightly less favorable rating (65.3%).

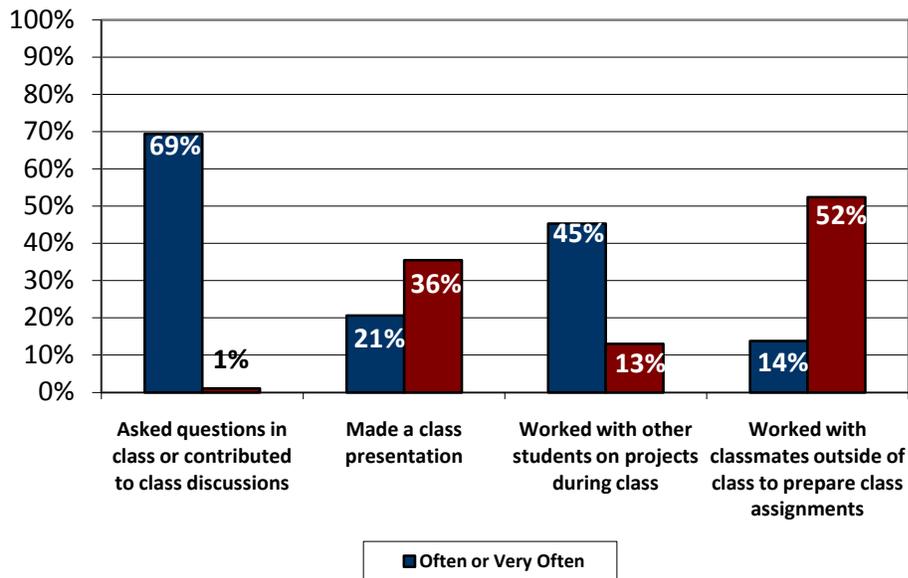
Figure 1: Relationships



Academic Experience

A positive academic experience is a product of many ingredients, one of which is the amount of time and energy that students invest in their academic work. The *CCSR* asks students to respond to seven survey items in order to gauge how actively they are involved in their education. While some students are highly involved in their academic experience (those who marked *Often* or *Very Often*), others are less engaged, as illustrated by their responses of *Never*, as displayed in Figure 2.

Figure 2: Academic Experience

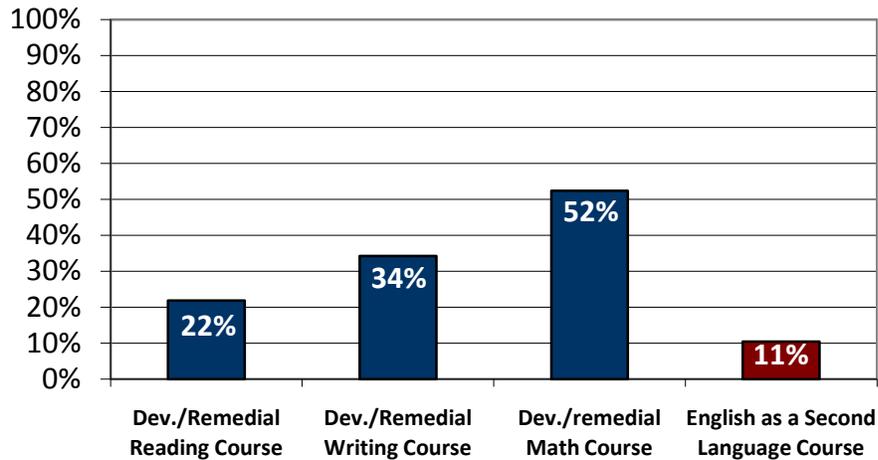


Developmental Education and ESL

Community colleges have quite diverse student populations, and in order to adequately serve student needs, colleges offer a variety of courses and special programs. Item 8 on the *CCSR* asks

students to identify which course paths they are following. As shown in Figure 3, large percentages of Owens students have taken or plan to enroll in developmental reading, writing, and/or math courses, while a smaller percentage plan on taking an ESL course.

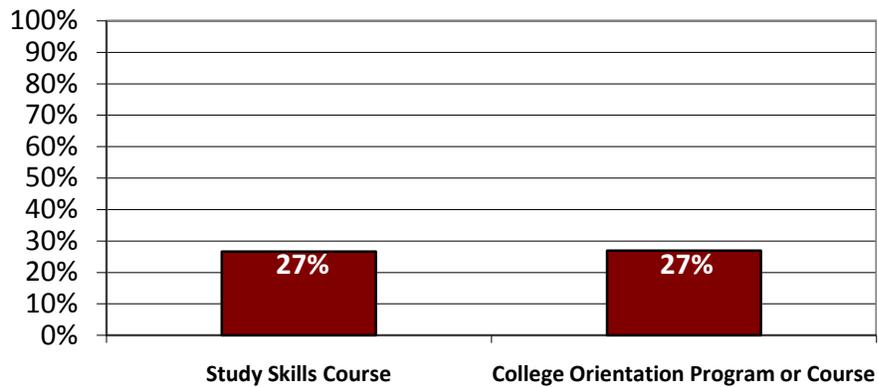
**Figure 3: Developmental Education and ESL
(Have Done or Plan to Do)**



Study Skills and Orientation Courses

Nearly 27% of students have taken or plan to enroll in a study skills course, and have taken or plan to enroll in an orientation course, as highlighted in Figure 4.

**Figure 4: Study Skills and Orientation Courses
(Have Done or Plan to Do)**



Curricular Experience

Table 3 shows the percentage of students who have taken or plan to enroll in internships, honors courses, or organized learning communities.

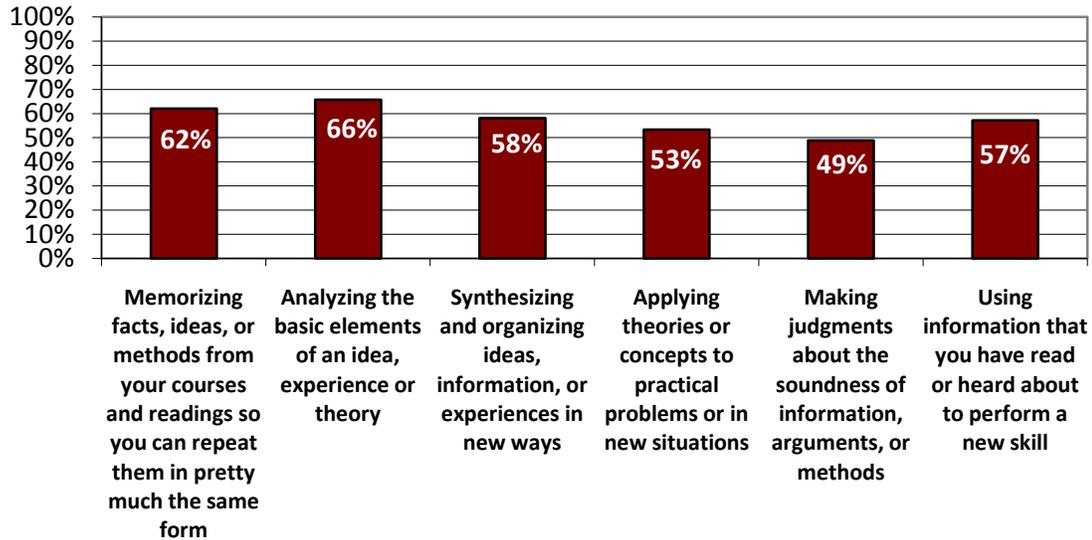
Table 3: Curricular Experiences

	Have Done or Plan to Do
Internship, field experience, co-op experience, or clinical assignment	68.0%
Honors course	22.5%
Organized learning communities (linked courses/study groups led by faculty or counselors)	22.6%

Student Learning

Student respondents indicate how much their coursework emphasizes intellectual processes such as memorization, the application of theories and concepts to practical problems, analysis, synthesis and organization, making value judgments, and using learned information to perform new skills. Figure 5 illustrates students’ perceptions of the extent to which Owens promotes these cognitive activities.

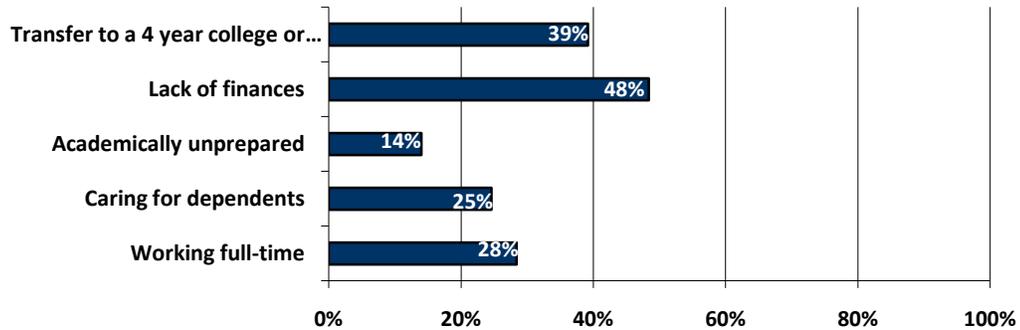
Figure 5: Student Learning (Quite a bit or very much)



Barriers to Persistence

CCSSE also asks students to indicate the issues that would require them to withdraw from Owens Community College. That is, what keeps students from achieving their educational goals? The percentage of students who report that the various factors would result in their withdrawing from class or from college is highlighted in Figure 6. Again, students could mark more than one factor; therefore, percentages will not sum to 100%.

**Figure 6: Barriers to Persistence
(Likely or Very Likely)**



Other barriers to persistence include lack of peer or familial support. Twenty percent of students report that their friends are *Somewhat* or *Not Very* supportive of “your attending college” while 12.1% respond similarly about support from immediate families.

Student Satisfaction

A useful measure of satisfaction is whether a student recommends a service or institution to others. The Community College Student Report asks students if they would recommend their college to a friend or family member. Ninety-five percent report that they would make such a recommendation. Another item asks students to evaluate their entire educational experience. Eighty-eight percent describe their experience as *Good* or *Excellent*, and only 1.3% rates their experience as *Poor*.

Another measure of satisfaction is the percent of returning or successful students. Seventy-five percent of the students indicate they plan to enroll in their college within the next 12 months, while 9% report that they have accomplished their goals and will not be returning. On the other hand, 16% report they have uncertain or no plans to return.

Student and Academic Support Services

Often surveys ask a combination of questions relating to satisfaction, use, or importance of levels of services, but rarely are surveys designed in a way that asks students to link all three, as does CCSSE. Table 4 displays use, satisfaction, and importance of a number of key academic and student support services. The first column reports the percentage of students who say that they used the service either *Sometimes* or *Often*; the second column shows the percentage of students who report they are *Somewhat* or *Very Satisfied* with the service; and the third column reports the percentage of students who rate the service as *Somewhat* or *Very Important*. Please note that satisfaction and importance percentages are based on the total number of respondents regardless of the student’s use of the service.

Table 7: Student Services by Use, Satisfaction, and Importance

	Use (Sometimes/Often)	Satisfaction (Very/Somewhat)	Importance (Very/Somewhat)
Academic Advising/planning	62.4%	73.8%	89.8%
Career Counseling	26.4%	39.2%	76.8%
Job placement assistance	9.6%	16.0%	69.6%
Peer or other tutoring	27.4%	42.6%	70.0%
Skills labs (writing, math, etc.)	43.9%	59.0%	83.5%
Child Care	3.8%	8.6%	44.1%
Financial aid advising	51.7%	55.4%	79.0%
Computer lab	63.6%	75.5%	87.2%
Student Organizations	8.3%	19.2%	50.9%
Transfer credit assistance	26.2%	34.5%	71.9%
Services to students with disabilities	6.2%	14.5%	59.5%
Note: The services highlighted in bright blue in each column are the three highest ratings in that area while the services highlighted in orange are among the lowest rated in each area			

Accordingly, students are most likely to use, express satisfaction with, and rate as important the following services: academic advising and planning and computer labs. While forty-four percent report child care as important, only four percent use child care services, and only eight percent are satisfied with the services. Similarly, sixty percent of students rate services to students with disabilities as important, but only six percent use the service, and only 15 percent are satisfied with it. Student satisfaction with child care and Services to Students with Disabilities should be interpreted with caution as they are based on the total number of respondents and not restricted to students who have used the service.

Participation in Selected Activities

The first 21 engagement items on the CCSR ask students to indicate how often they have engaged in particular activities during the current academic year. For purposes of analysis, CCSSE collapsed the response categories *Often* and *Very Often* to report substantial levels of engagement; the criterion for inclusion was that half of all students had to report participating in the activity. This information is highlighted in Table 8. In most activities, part-time students are less likely than are their full-time peers to indicate substantial levels of engagement.

Table 8: Students Participating in Selected Activities by Enrollment Status (Often/Very Often)

Most Frequent Student Activity Items	All	Part-time	Full-time
Asked questions in class or contributed to class discussions	69.4%	68.7%	69.4%
Used the internet or instant messaging to work on an assignment	60.7%	56.9%	68.3%
Received prompt feedback (written or oral) from instructors on your performance	59.7%	60.1%	59.0%
Used email to communicate with an instructor	59.0%	52.1%	73.1%
Worked on a paper or project that required integrating ideas from various sources	58.3%	52.9%	69.2%
Prepared two or more drafts of a paper or assignment before turning it in	51.0%	45.9%	61.4%

In comparison, it is also important to note what students are not doing in college as frequently as one might expect. To report the least frequent activities, CCSSE uses the *Never* response category. Table 9 consists of items where 30% or more of **all** students report never engaging in that particular activity. Part-time students are more likely than are their full-time peers to report *Never* when responding to student activity items.

Table 9: Students Not Participating in Selected Activities by Enrollment Status (Never)

Least Frequent Student Activity Items	All	Part-time	Full-time
Participated in a community based project as part of a regular course	83.0%	84.0%	81.1%
Tutored or taught other students (paid or voluntary)	77.9%	80.6%	72.1%
Worked with instructors on activities other than coursework	76.9%	79.6%	71.3%
Discussed ideas from your readings or classes with instructors outside of class	54.4%	57.3%	48.5%
Worked with classmates outside of class to prepare class assignments	52.4%	55.6%	45.9%
Made a class presentation	35.5%	41.6%	22.8%

Summary of CCSSE Findings

This summary for all students at our college highlights those items where Owens falls notably above or below the mean of our comparison group, extra large colleges. The letter at the end of the item indicates the student subgroup where the item is significant.

Items above the mean	Items below the mean
College Activities: 4a. Asked questions in class or contributed to class discussions (a) 4k. Used email to communicate with an instructor (b)	College Activities: 4g. Worked with classmates outside of class to prepare class assignments (b)
Opinions About Your School 9f. Providing the financial support you need to afford your education (b)	Educational and Personal Growth 12k. Understanding people of other racial and ethnic backgrounds (a)
Weekly Activities: 10d. Providing care for dependents living with you (parents, children, spouse, etc.) (c)	College Experiences 14a. Working full-time (a) 14e. Transfer to a 4-year college or university (c)
Educational and Personal Growth 12b. Acquiring job or work-related knowledge and skills (b)	
Student Services: 13g1. Frequency: financial aid advising (a) 13e2. Satisfaction: Skills labs (writing, math, etc.) (c) 13h2. Satisfaction: Computer lab (b) 13e3. Importance: Skills labs (writing, math, etc.) (c)	

(a) = Part-time students, (b) = Full-time students, (c) = Both full-time and part-time students.

In conclusion, although four items are below the mean for Owens, two items, 4g and 12k, could be targets for potential improvement.

Accountability Metrics

The Ohio Board of Regents tracks progress in achieving the targets stated in the Ohio Strategic Plan for Higher Education by monitoring twenty accountability metrics. Of the twenty, eleven are currently applicable to community colleges. Below are historical values (actual) as well as Owens Community College targets for each of the indicators tracked for community colleges.

Metric	Notes	Actual			Targets				
		2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Total Degrees / Certificates Awarded (Annual)		1,202	1,313	1,337	1,399	1,464	1,529	1,594	1,659
At Least One- but Less than Two-Year Certificates (OBR Approved Certificates= CERT1)	LPNP, ZACC, ZOFF	115	114	113	115	120	125	130	135
Associate		1,087	1,199	1,224	1,284	1,344	1,404	1,464	1,524
1. Total post-secondary enrollment (Fall)		19,633	21,053	22,178	22,791	23,404	24,017	24,630	25,243
2. Total STEM degrees Awarded (Annual)		546	594	650	693	739	786	834	884
3. Total enrollees age 25 and older (Fall)		10,586	11,219	11,599	12,079	12,638	13,209	13,793	14,389
4. Total degrees awarded to first generation college students		495	548	566	603	645	688	732	777
5. Percent of total degrees awarded to Black, Hispanic, and American Indian students (Annual)	# of Degrees	124	129	146	155	165	176	186	197
	% of total	11.4%	10.8%	11.9%	12.1%	12.3%	12.5%	12.7%	12.9%
8. Percent of facilities in satisfactory condition or needing only minor rehabilitation (Fall)	Numerator	444,243	474,339	474,339	561,505	568,718	678,704	693,800	693,800
	Denominator	865,240	891,612	894,194	1,113,655	1,113,655	1,113,655	1,113,655	1,113,655
	%	51.3%	53.2%	53.0%	50.4%	51.1%	60.9%	62.3%	62.3%
9. Total size of endowments and foundations per FTE (Annual)	Endowment	\$2,127,032	\$2,152,144	\$2,030,629	\$2,300,000	\$2,500,000	\$2,750,000	\$3,000,000	\$3,300,000
	FTE	11,233	11,481	12,213	12,562	12,911	13,290	13,609	13,958
	\$ per FTE	\$189	\$187	\$166	\$183	\$194	\$207	\$220	\$236
14. Percentage of first time enrollees below age 21 with equivalent of one semester or more of college credit earned during high school (Fall)	Numerator	20	13	13	20	25	30	35	40
	Denominator	2,323	2,416	2,355	2,424	2,474	2,524	2,574	2,624
	%	0.9%	0.5%	0.6%	0.8%	1.0%	1.2%	1.4%	1.5%
17. Globalization measures									
Total international students (Fall)		67	100	131	145	175	250	300	400
Ohio students studying abroad (Annual)		NA	NA	NA	10	25	35	45	60
20. Number of students engaged in internships and co-ops (Fall)		1,433	1,467	1,483	1,522	1,543	1,564	1,585	1,606

Submitted to the Ohio Board of Regents 1/19/2010
Office of Institutional Research

On April 16, 2010, Ohio Board of Regents Chancellor Eric D. Fingerhut released the first of five updates to Ohio's 10-year Strategic Plan for Higher Education. The remaining four are forthcoming. Each section is posted on the Strategic Plan Updates 2010 website. Source: "[Strategic Plan Updates 2010](#)", Ohio Board of Regents, April 16, 2010.

Appendix A

The following reports were produced by the Ohio Board of Regents. They provide benchmark data for enrollment, retention and student success, completion, preparation for college, time and credits to degree, academic success of transfer students, and cost and state support.

[Headcount Enrollment by Student Level and Age at University System of Ohio Institutions](#)

[Full-Time Equivalent Enrollment by Campus at University System of Ohio Institutions](#)

[Three-Year Graduation and Continued Enrollment Outcomes at Two Year Institutions in the University System of Ohio](#)

[First to Second Year Retention at Ohio's Public and Private Colleges and Universities](#)

[Degrees and Certificates Awarded at Ohio's Title IV-Eligible, Degree-Granting Institutions](#)

[Preparation for College Level Coursework at University System of Ohio Institutions](#)

[Time and Credits to Degree for Associate and Bachelor's Degree Graduates at University System of Ohio Institutions](#)

[Academic Success of Mobile vs. Non-Mobile Juniors Attending Ohio Public Universities in Fall 2008](#)

[Cost and State Support per FTE in Higher Education](#)