DRAFT OUTLINE

First Annual Report on The Condition of Higher Education in Ohio: Meeting the State's Future Needs

The following nine sections of the *Condition Report* will highlight the Regents conclusions about the condition of higher education in Ohio:

Section 1: Ohio's Economy and Its Relationship to Education

Section 2: Educational Attainment and Degree Production

Section 3: Participation

Section 4: Preparation

Section 5: Affordability

Section 6: Institutional Context: Breadth And Quality

Section 7: Financial Condition and Productivity

Section 8: Economic Development - Workforce Training, Research and Technology Transfer

Section 9: Summary and Next Steps

SECTION 1: OHIO'S ECONOMY AND ITS RELATIONSHIP TO EDUCATION

Why do residents of some states have higher incomes than residents of other states? Why have these income differences persisted for the past 75 years?

Over the long run, factors like innovation and a skilled labor force appear to make a big difference in explaining why some states have grown more than others.

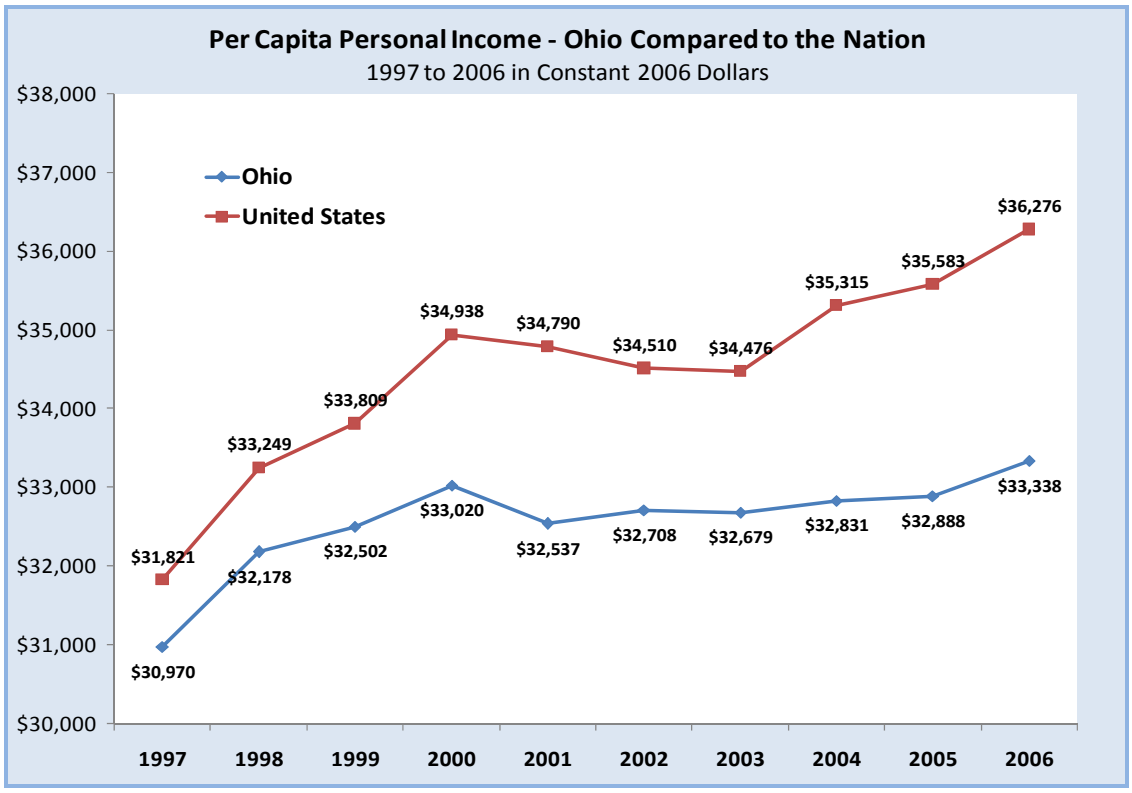
--Federal Reserve Bank of Cleveland Analysis of Per Capita Income Growth for All States

Ohio has many strong attributes. It ranks seventh in the country in economic output and fifth in Fortune 500 companies. *(Department of Development)* Historically, economic prosperity has been linked to education, and it is anticipated that the link will be stronger in the future with estimates that nearly 80 percent of all new jobs during the next 20 years will require some education beyond high school. Has Ohio's economic prosperity changed?

HOW DOES OHIO'S ECONOMIC PROSPERITY COMPARE WITH OTHER STATES?

What we know:

- Ohioans' income, once above the national average, has declined steadily, relative to other states, for several decades. In the past 10 years, Ohio's per capita income has fallen from 97% of the national average to 92%.



How can Ohio change its future economic prosperity? Graduate more Ohioans from college, take actions to increase the likelihood that people with degrees will stay and attract more well-educated people to Ohio.

What does producing more degrees mean for Ohio?

Demographics are a challenge for educating more citizens:

- Ohio's population is expected to remain essentially unchanged by 2030. Only North Dakota, Iowa and West Virginia are expected to experience slower population growth than Ohio while the U. S. population is projected to increase by 23
- Ohio will have actual declines in the state's youth (under age 18) and individuals in their prime working years of 18-64 while the number of individuals age 65 and over is expected to increase by nearly 55%.

"The growing imbalance of workers and senior citizens could have significant consequences for the ability of Ohio to fund the programs and services necessary to support the needs of an aging population." – *Responding to Constituents' Needs in a Changing Climate,* Midwestern Higher Education Compact, January 2007

SECTION 2: EDUCATIONAL ATTAINMENT AND DEGREE PRODUCTION

The knowledge economy is unforgiving for individuals who do not have education or training beyond high school – and for communities, states, and nations that do not have high percentages of their populations with some education or training beyond high school.

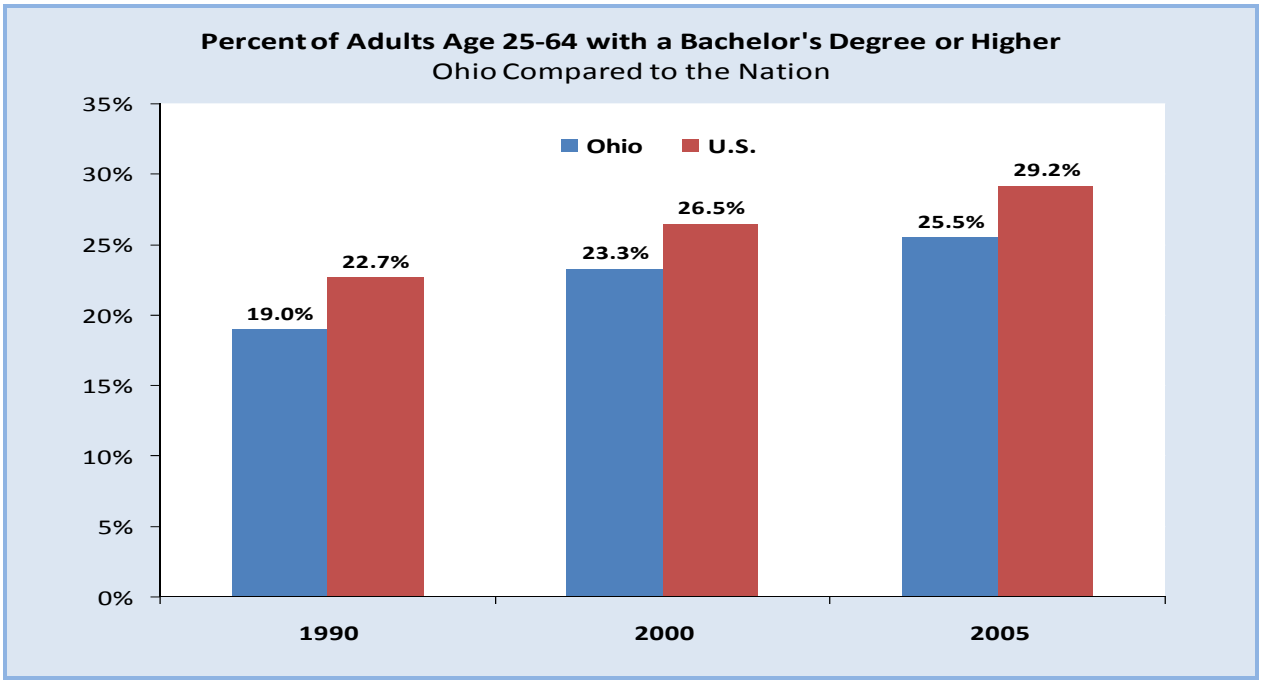
- *The National Center for Public Policy and Higher Education and the National Center for Higher Education Management Systems*

Assessing the condition of educational attainment is complicated. An examination of trends in degree production, student persistence, college graduates leaving the State and college graduates moving into the state is useful in understanding the underlying causes for Ohio's educational attainment.

1. HOW DOES OHIO'S EDUCATIONAL ATTAINMENT COMPARE WITH OTHER STATES AND IS IT ADEQUATE?

What we know:

- The chart shows that Ohio is substantially below the national average for adults with bachelor's or higher degrees and has made no progress in changing its relative position in the past fifteen years.
- Ohio is slightly below the national average of adults with two-year (associate) degrees.
- In the Midwest, Ohio is ahead of only Indiana in percentage of adults with a four-year (bachelor's) or higher degree.



Note: Chart for adults with associate degrees will be inserted.

What does it take to be "average?" What does it take to be a top-performing Midwest state like Minnesota?

2. HOW COMPETITIVE IS OHIO'S DEGREE PRODUCTION?

What we know:

- Ohio produces more four-year (bachelor's) degrees, slightly fewer graduate and professional degrees, and fewer two-year (associate) degrees per capita than the national average.

- Ohio's associate degree production per capita was 92% of the U.S. level in 1995, but dropped to 84% in 2005.

- Degree production has increased. Since 2002:

Associate	Up 21%
Associate in Science, Technology Engineering or Math Fields	Up 39%
Bachelor's	Up 11%
Graduate/Professional	Up 12%

Nationally, about 10% of community college students earn an associates degree within three years, and about 55% of four-year college students earn a bachelor's degree within four years. Graduation rates for low-income and minority students at two- and four-year colleges lag substantially behind those for middle- and high-income students, as well as for white students.

The barriers to postsecondary success for low-income adults are especially high. A sizeable portion of college students are now low-income adults, and these students are much less likely to succeed than their traditional-aged, more affluent peers. Nationally, two-thirds of low-income adults who entered college in 1995–1996 reported that they were seeking a bachelor's or associate's degree. However, of those adults, only 7% earned a bachelor's degree and only 8% earned an associate's degree within six years.

3. HOW IS OHIO'S DEGREE PRODUCTION AFFECTED BY STUDENT PERSISTENCE AND TRANSFER?

What we know:

- The two-year college retention rate is near the average for the Midwest and slightly below the nation.
- The four-year college retention rate is below the national average and behind all but two other Midwest states.
- A collaborative effort has produced a user-friendly statewide transfer system that will enable students to transfer easily among public institutions in the state.
- Only 7% of bachelor's degree graduates in 2005 transferred at least 30 semester hours from community colleges and 11% transferred credits from regional campuses.

- The transfer process from two-year to four-year institutions must go smoothly if non-traditional students are to succeed in attaining bachelor's degrees.

Nationally, over one-half of community college students and about three-fourths of four-year college students return for a second year. Research shows that one of the most important characteristics of effective first-year college programs is "intensity." Newly enrolled students have a much greater chance of completing a degree if they take a substantial number of academic credits early in their academic careers. Earning less than 20 credits in the first calendar year following postsecondary entry lessens the probability of completing a bachelor's degree by a third.

4. DOES OHIO BENEFIT FROM COLLEGE GRADUATES REMAINING IN THE STATE AND FROM COLLEGE GRADUATES MOVING INTO OHIO?

What we know:

Like several other states, many of Ohio's college graduates leave the state. However, fewer college graduates move into Ohio than other states. For example, Ohio and Illinois are similar in terms of college graduates leaving the state. However, more college graduates move into Illinois than leave. For Ohio, more graduates leave than move into the State. For the one year period from 2004 to 2005, when the number of college graduates with a bachelor's degree or higher who left Ohio is combined with the number who moved in, Ohio lost 9,000 graduates. In contrast, Illinois gained 9,000 graduates. This trend has a significant impact on the State's educational attainment.

Within one-half year of graduation,

- 49% of medical school graduates leave Ohio
- 37% of the doctoral graduates leave Ohio
- 30% of the law graduates leave Ohio
- 28% of the bachelor's graduates leave Ohio
- 22% of the master's graduates leave Ohio
- 13% of the associate graduates leave Ohio

SECTION 3: PARTICIPATION

. . . increasing Ohioans' participation and success in postsecondary education will improve the state's economic vitality and competitiveness.

- Governor's Commission on Higher Education and the Economy

In assessing the condition of Ohio's participation in higher education, it is important to examine the pipeline. How many students are in the traditional pipeline -- high schools? Do students graduate from high school? Do students go to college directly from high school? What about adults? What is Ohio's participation from all age groups? Is it adequate?

1. IS OHIO'S EDUCATIONAL PIPELINE ADEQUATE TO MEET THE NEEDS OF A 21ST CENTURY ECONOMY?

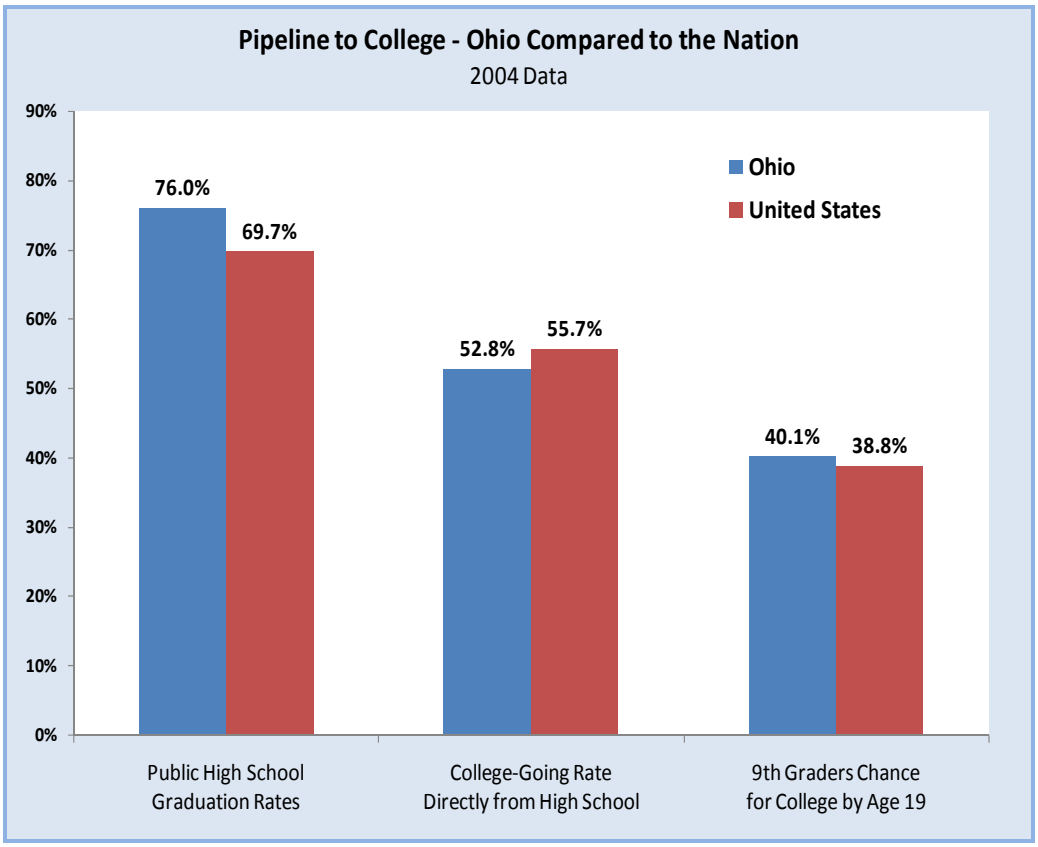
What we know:

- Ohio will see a modest increase (1%) in public high school graduates from 2003 through 2018. (*Knocking At The College Door, Western Interstate Commission on Higher Education, 2003)*

- The chart shows that

  - Ohio's high school graduation rates are considerably above averages of other states and have improved since 1996.
  - Ohio's college-going rate directly following high school graduation is below the national average, and it has dropped since 2002.

- High school graduation rates vary significantly among counties. Athens County, Wood County and Portage County lead the state in this measure (for 18-24 year olds) while Geauga, Vinton and Holmes counties have the lowest percentages.



The traditional pipeline of high school students will not address Ohio's educational needs. "To reach international competitiveness by 2025, Ohio cannot close the gap with traditional college students. Ohio must rely on the re-entry pipeline—getting older adults back into the education system and on track to attaining college degrees." *(NCHEMS, 2007)*

Ohio has been expanding education opportunities though E-Learning, which can be online, interactive video, television, CD, DVD and correspondence courses. The *Ohio Learning Network* is a consortium of 81 of Ohio's public and private colleges and universities. Web-based is the most popular delivery method in Ohio with more than 85% of E-Learning courses offered via the Web.

In 2006, Ohio public and independent colleges and universities enrolled nearly 100,000 people in e-learning courses, a 55% increase from 2005. The private sector had the largest percentage increase, and public enrollments increased by 17%. Adults (25 and older) make up half of the enrollments. Ohio's community and technical colleges enroll about 41% of the state's undergraduate students, but 63% of all the public undergraduate e-learning students.

Ohio's growth rate for online enrollment appears to be exceeding the national growth rate, but fewer students were taking at least one online course in the fall of 2006 (20% nationally versus 11% of public undergraduate students in Ohio for both four- and two-year institutions (almost one in five at community and technical colleges). *(Note: national numbers include private institutions while the statistics quoted in this paragraph include public only so there may be comparability issues.)*

2. IS PARTICIPATION IN HIGHER EDUCATION ADEQUATE?

What we know:

- Ohio's enrollment by various age groups in college or graduate school closely parallels the nation, but is below Midwest averages.

- Enrollment has increased significantly since 2001.

- The need to educate more Ohioans was recognized by the 127th General Assembly in enacting legislation calling for 230,000 more Ohioans enrolled by 2017 and higher graduation rates.

Participation of adults is particularly important for Ohio. A recent study, *Campus Programs and Policies for Low-Income Adults,* concluded that despite the many programs and services that institutions provide for low-income adults, without financial support and affordable childcare, many adults still struggle to succeed ion higher education. Efforts by Ohio institutions to serve low-income adults were highlighted in the report.

SECTION 4: PREPARATION

College readiness skills are indistinguishable from those needed for success in modern jobs.

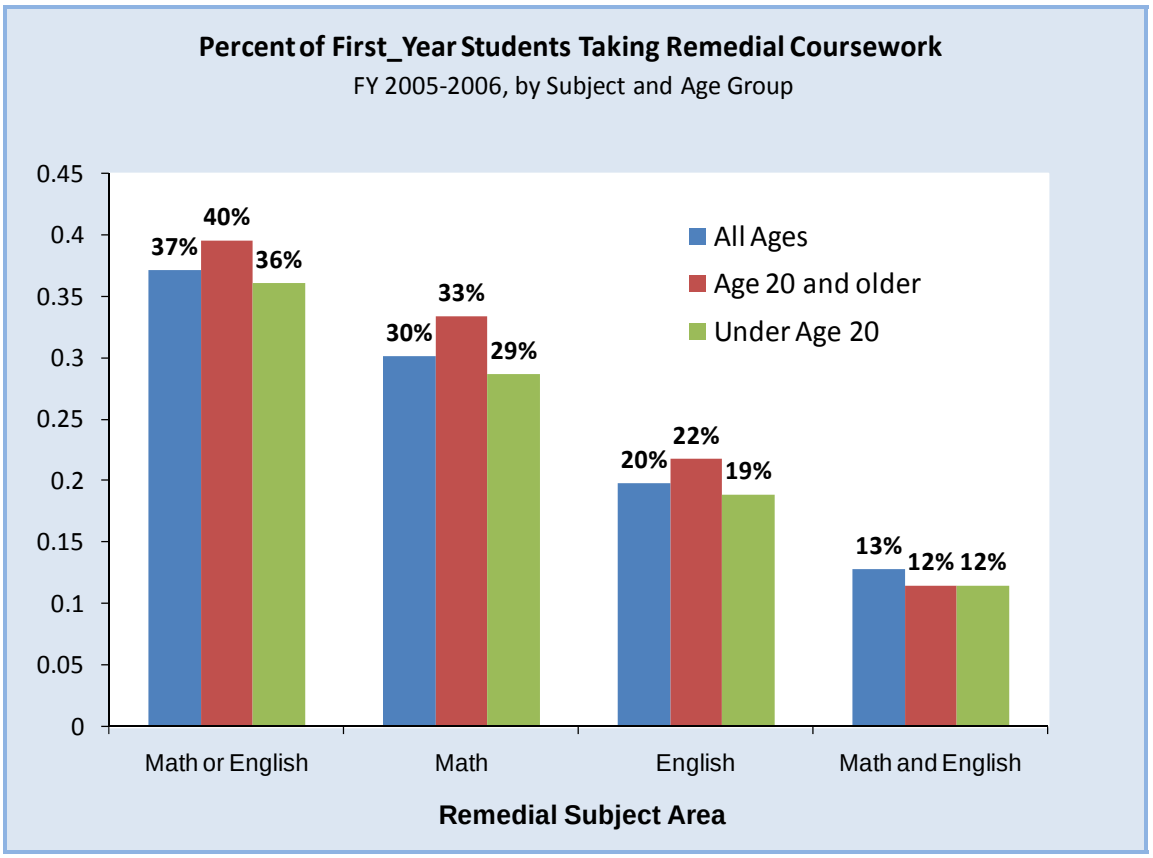
-- (ACT, Achieve, Inc.)

In assessing the condition of Ohioans' college readiness, enrollments in high school courses and college remedial courses were examined. In addition, national research was reviewed to identify some of the underlying causes that explain Ohio's performance.

ARE OHIOANS ADEQUATELY PREPARED FOR COLLEGE?

What we know:

- As the chart shows, more than one-third of recent high school graduates enroll in remedial math or English.
- For students over the age of 20, 40% enroll in remedial math or English.
- Students who successfully complete all remedial courses (54% of all remedial course-takers) at Ohio's public colleges and universities do almost as well in the second year as students who did not take any remedial courses. They return to college in the second year at about the same rate, the pass rates for credits taken are about the same and the average grade point average is about the same.



Is Ohio faring well in some areas of academic preparation?

- Ohio's math teachers are among the most highly qualified in the Midwest region as measured by the percentage of high school students whose teachers majored in math in college, and Ohio high school students take more math courses than students in other states.

- Ohio's 2006 graduating class scored about at the national average on the ACT tests.

- In January 2007, Ohio enacted legislation for a more rigorous core curriculum. While this legislation is a positive step forward, recent research indicates that the most effective preparation is a curriculum that exceeds the traditional core curriculum across most subject areas.

- Ohio's 8th grade test takers scored at or above "proficient" on National Assessment of Educational Progress (NAEP) test in math, science, reading and writing (from 17% to 37% higher.) *(Measuring Up, 2007)*

What are the underlying causes that explain Ohio's academic preparation?

- Not enough high school students are taking a highly rigorous curriculum.

- Ohio has low-participation in Advanced Placement (AP) course-taking in high school. (*Note: The Advanced Placement program was established by the College Board in 1955 and is designed to provide rigorous, college-level courses and assessments for high school students*). While Advanced Placement (AP) course-taking is growing, Ohio is about two-thirds of the national average. If Ohio students were at the national rate, an additional 8,000 students would enroll in AP courses each year. National studies show that the AP program has a strong relationship with successful postsecondary performance and persistence. Students who take two or more AP exams are more likely to attain a bachelor's degree.

- Only about 4% of 11th and 12th graders take *Postsecondary Education Opportunity* courses.

- Only two-thirds of Ohio's science teachers majored in science in college – the lowest rate in the Midwest region, and Ohio is at the bottom of the region for high school science course-taking.

- Only 61% of Ohio high school students in academic core courses (math, science, English, and social studies) are taught by individuals who earned a college major in an academic discipline directly related to their teaching subject, which is below the national average of 70%.

What does research say about academic preparation?

- National research shows that students who take two or more remedial education courses are less likely to complete a postsecondary certificate or degree (41% compared with 69% of those who do not take remediation.)

- Nationally, more than half (55%) of first-generation students took remedial education. A rigorous high school curriculum (including advanced mathematics) narrows the gap in postsecondary outcomes for first-generation students.

- National studies show that despite a higher rate of remediation and more family obligations, low-income adult students earn slightly better grades, on average, than do traditional students.

- The SAT and ACT are useful college readiness benchmarks and predictors of college performance. SAT and ACT are also related, but less than other factors, to college persistence.

SECTION 5: AFFORDABILITY

To assess the affordability of higher education, tuition and fees and their relationship with family income as well as student financial aid were reviewed. Many states collect "net price" information, which is useful in assessing affordability for students. The University of Ohio System plans to collect this information in the future.

ARE OHIO'S PUBLIC HIGHER EDUCATION INSTITUTIONS AFFORDABLE?

What we know:

- For average published tuition and fee charges at public two-year colleges and four-year universities, Ohio is among the most expensive ten states.

- As the chart shows, tuition and fees for Ohio's four-year and two-year institutions are almost 50% above national averages and, until this biennium, rose rapidly.

- Ohio families devote an average of 30% of their income to pay college expenses after financial aid at (two-year) colleges and 42% for four-year colleges.

- Ohio undergraduate students and their families borrow more through federal loan programs than any other Midwest state but Illinois. For students attending four-year institutions, the average federal loan for four years is about $20,000, $3,200 higher than the national average.

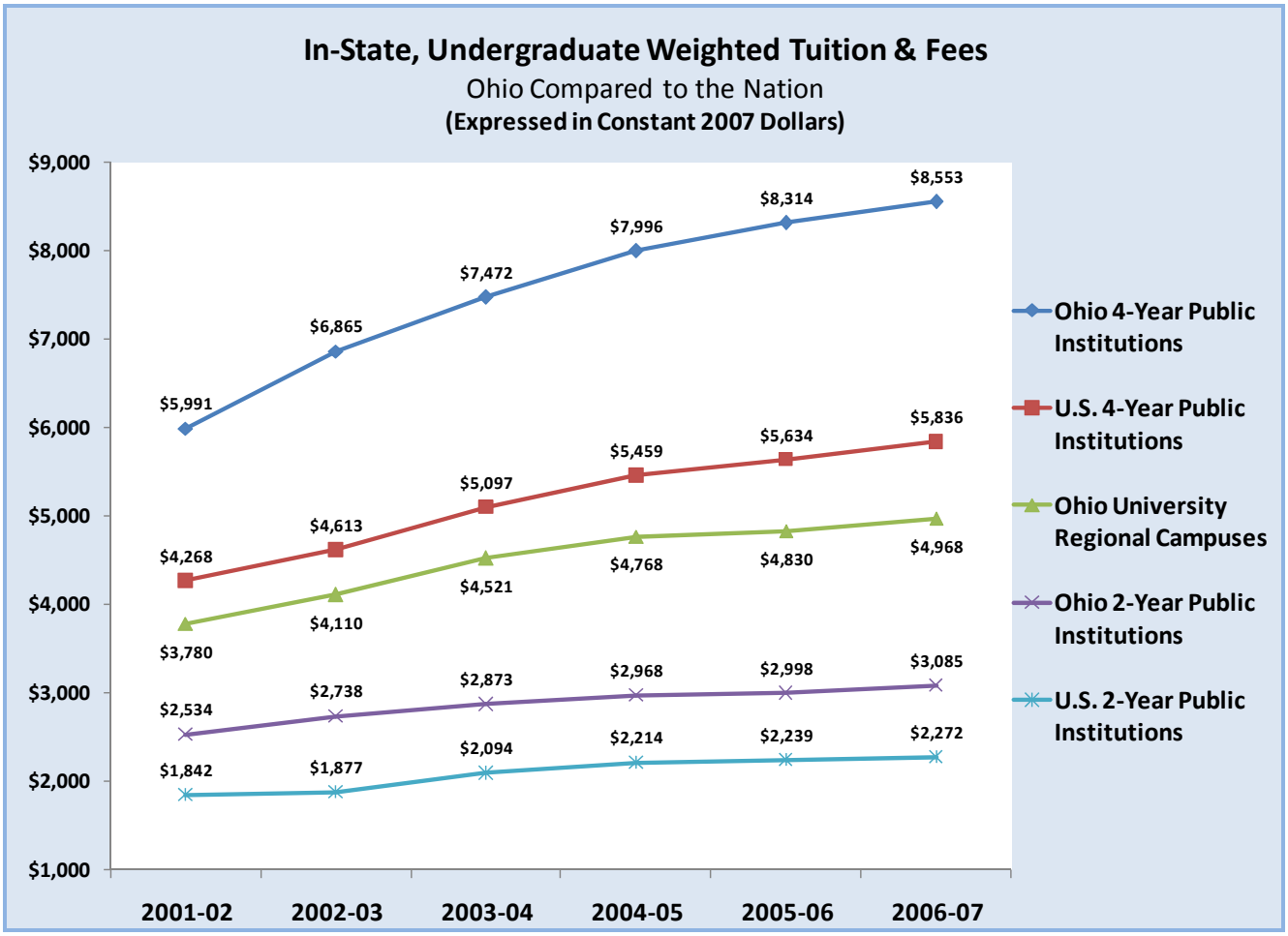
- Financial access to two-year colleges is not equitable in all geographical regions because university branches and technical colleges charge significantly more than community colleges.

- Many students are taking fewer courses per term than twenty years ago. Nationally, the average student obtains a four-year degree in about 4.5 years. In many instances, students are working. The result is higher costs for students and families because they pay more tuition, fees and living expenses for the extended stay in college.

- Ohio is expanding its student financial aid programs:

  - Ohio is expanding need-based financial aid with the *Ohio College Opportunity Grant.* When combined with federal Pell grants, the grants will fully-fund tuition at public two-year institutions for Ohio's neediest citizens (typically students from families with annual incomes of $25,000 or less). The *Grant* will improve the chances that needy students will enroll and succeed in higher education.

  - The new *Choose Ohio First* Scholarship Program will support undergraduate and/or graduate education for many Ohio residents in science, technology, engineering, and math (STEM) fields, medicine, and STEM education.



What does research say about academic preparation?

- The two main reasons that students leave school without a degree are: they needed to work (26 percent) and other financial reasons (16 percent.)

- Studies show that perceptions of high net prices deter adequate academic preparation and that aspirations decline by the 12th grade because of concerns about college costs and the availability of financial aid.

- Many eligible low-income students do not apply (1.5 million) for federal financial aid and moderate and low-income families do not understand costs and financial aid.

- Nationally, three-fourths of full-time, first year under-graduates receive some type of financial aid, and about 45 percent of all full-time, first-time undergraduates have a loan. Studies show that providing generous financial aid packages and targeting financial aid to those with financial need can encourage students to take more courses and reduce time spent working outside the classroom.

SECTION 6: INSTITUTIONAL CONTEXT - BREADTH AND QUALITY

Ohio's colleges and universities are exceptional resources. They educate future leaders who will provide the talent, energy and innovation to keep Ohio competitive in a knowledge-based economy.

IS HIGHER EDUCATION CAPABLE OF PROVIDING EDUCATIONAL, RESEARCH, AND PUBLIC SERVICES NEEDED TO SUPPORT A THRIVING 21ST CENTURY ECONOMY?

What we know:

- The high quality of many of Ohio's institutions, academic, research and public service programs is nationally and internationally recognized. In recent months

  - Ohio students have been selected as Rhodes Scholars.

  - Ohio institutions lead the country in most faculty chosen as "fellows" for various scientific organizations.

  - Several campuses have been successful in attracting major federal and private grants in a wide range of fields, including medical, education and commercialization.

  - Colleges continue to form partnerships with each other and businesses to address workforce needs.

- Students, faculty and institutional leaders are highly capable, talented and committed.

- Students who graduate from Ohio's colleges and universities succeed in passing licensure exams, have higher incomes and contribute to their communities and the State.

- Ohio has a strong infrastructure and many collaborative partnerships needed to support expanded education, research and public service activities.

- Quality education can be delivered in both large and small classes. In fall 2005, the median size of a lecture class was 22 students with 21% of course enrollment in classes with fewer than 20 students and 23% of course enrollments in classes with 50 or more students.

- More than half (57%) of all undergraduate credit hours were taught by full-time faculty.

WHAT KIND OF HIGHER EDUCATION SYSTEM DOES OHIO HAVE? FOR TWO-YEAR INSTITUTIONS?

- Ohio citizens have access to many two-year colleges – community colleges, technical colleges and two-year branch campuses.
- Financial access varies by geographic location. For example, university branches charge almost twice as much as community colleges.
- Participation rates (in home counties) are higher for the lower cost community colleges.
- Enrollment growth is higher for the lower cost community colleges.

WHAT KIND OF HIGHER EDUCATION SYSTEM DOES OHIO HAVE? FOR FOUR-YEAR INSTITUTIONS?

- Ohio citizens have access to diverse four-year colleges.
- Tuition varies from $5,300 to $11,700.
- Selectivity varies with ACT scores averaging less than 21 to more than 24.
- Graduation rates vary from 28% to 84%.
- Most university research is at The Ohio State University and the University of Cincinnati.

Are Ohio public higher education graduates meeting the expectations of Ohio's employers when hired? Are Ohio institutions serving Ohio's workforce training needs? Some states conduct employer satisfaction surveys, and Ohio plans to do so in the upcoming year. Having baseline and national benchmarks for employer satisfaction could be of great value to higher education. Results of surveys in other states show that employers say that knowledge and understanding in the employee's field of study is very important. Employers also expect college graduates to have traits of reliability, integrity, willingness to learn and a positive attitude. Teamwork, verbal communication, listening to others and critical thinking skills are also rated as very important.

SECTION 7: FINANCIAL CONDITION AND PRODUCTIVITY

By 2012, states are likely to face substantial revenue gaps assuming the current revenue structure.

In most states, higher education expenditures are expected to grow less rapidly than total state and local government spending.

- The Rockefeller Institute

Educating thousands of additional Ohioans is a formidable task. Is higher education financially capable of achieving this goal? Are accountability systems in place to monitor financial condition?

1. ARE OHIO'S PUBLIC INSTITUTIONS CURRENTLY ABLE TO FINANCIALLY SUPPORT SUBSTANTIAL INCREASES IN ENROLLMENTS AND DEGREES AT A HIGH QUALITY LEVEL?

What we know:

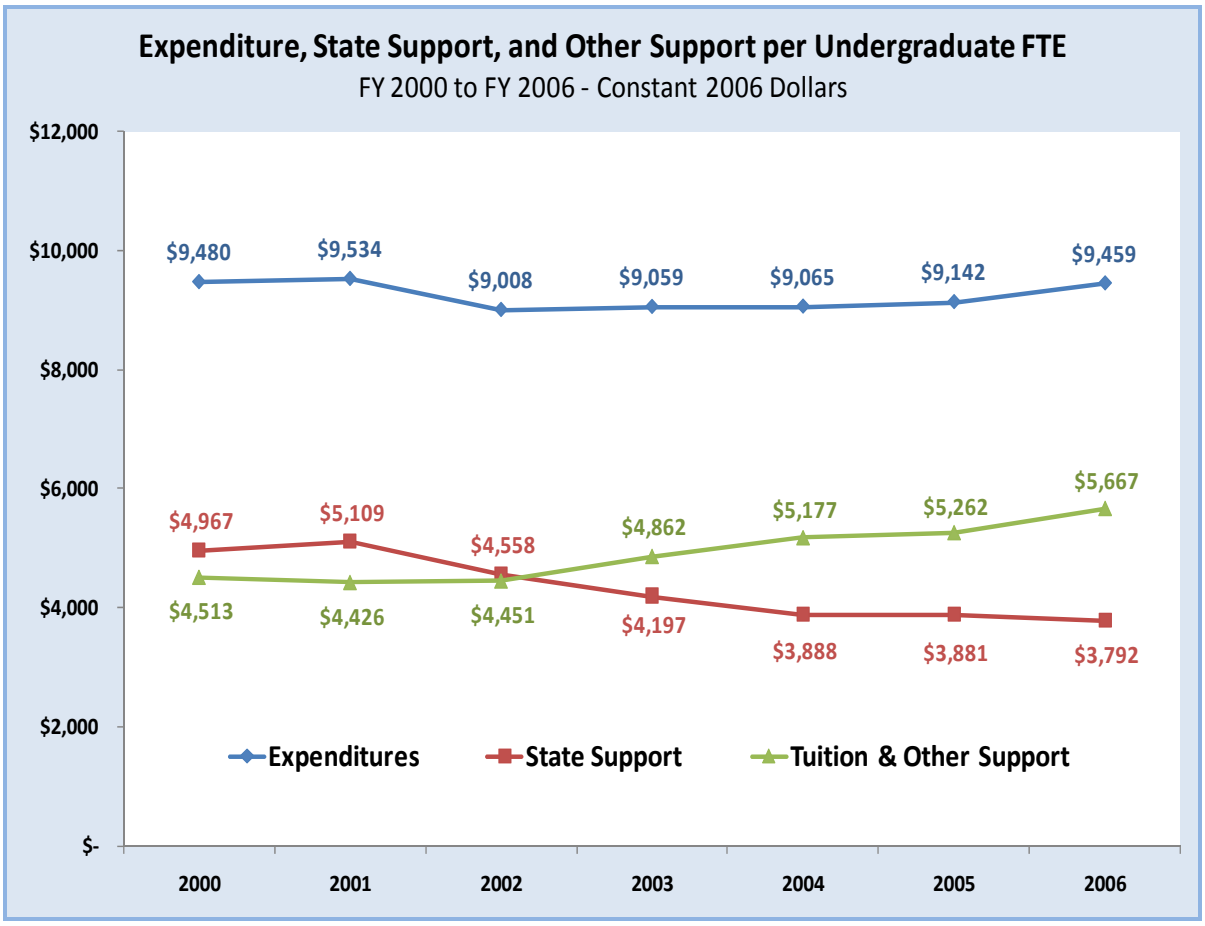
- State appropriations plus tuition and other revenues dedicated to educate students are "average" when compared with other states.

- The chart shows that Institutions are heavily dependent on tuition to educate students.

- Financial pressures include:

  - Relying heavily on tuition to educate students.
  - Experiencing skyrocketing energy and health care costs.
  - Facing high costs for capital renewal to renovate, rehabilitate or replace aging facilities, including the need to retire about $4 billion in local facilities debt. Plant debt has increased by almost 300% in the past eight years.
  - Experiencing costly expectations for access to top-quality facilities and technology (consumerism) and environmental issues, e. g., reductions of greenhouse gas.

Unique factors that affect Ohio, and not public institutions in most other states, are: the two-year freeze on tuition and substantial facilities debt. Institutions have incurred debt to increase or improve capacity to serve more students; however, debt constrains future resource allocation choices.



Financial Accountability Systems. Having appropriate accountability systems is extraordinarily important for higher education.

2. ARE APPROPRIATE FINANCIAL ACCOUNTABILITY SYSTEMS IN PLACE?

What we know:

- Each college produces an annual financial report using nationally accepted accounting practices as determined by the Governmental Accounting Standards Board (GASB).
- Annual audits are conducted by or at the direction of the Auditor of State and posted on the web.
- The Regents' Vice Chancellor for Finance reviews each audit.
- The audited data are used in calculating financial ratios required by legislation. The financial ratios and other financial data are posted on the web. (Note: In 1997, the 122nd General Assembly enacted legislation designed to increase financial accountability at state colleges and universities by using a standard set of measures to monitor the fiscal

health of campuses. Three ratios are calculated. The *Viability ratio* is expendable net assets divided by plant debt. The *Primary Reserve ratio* is expendable net assets divided by total operating expenses. The *Net Income ratio* is total net assets divided by total revenues).

- Campuses submit quarterly financial reports which are distributed to elected and appointed state officials.

- Regents' staff periodically conduct enrollment and financial aid audits of state colleges and universities.

- Regents' staff periodically conduct financial aid audits of private colleges and universities.

Productivity. Productivity in higher education has typically been measured through cost savings and costs per student. Some states are now looking at productivity from an academic perspective – are students persisting and completing degrees?

3. CAN PRODUCTIVITY BE IMPROVED? ARE HIGH PERCENTAGES OF OHIO STUDENTS COMPLETING THEIR DEGREES?

What we know:

- Ohio's two-year college retention rate is near the average for the region and the nation.

- Ohio's 54% six-year bachelor's degree completion rate is near the national average, but is behind all but two other states in the Midwest region. "The rate of postsecondary degree-granting—a proxy for the relative efficiency of the state's postsecondary system—puts Ohio in the bottom tier of Midwest states." *(Responding to Constituents' Needs in a Changing Climate,* Midwestern Higher Education Compact, January 2007)

A recent national report identified ways to improve educational productivity:

- Improving the preparation of high school students for college-level work and that of adults for college-level learning; and creating effective transitions between schools and colleges, two- and four-year colleges, and the workplace and returning college students

- Streamlining the educational process, including curriculum and course redesign, for greater educational productivity and cost-effectiveness; and adapting educational policies to reduce course repetition, to offer incentives for degree completion, and to assess and recognize academic proficiency acquired outside the institution.

- Accommodating enrollment growth through institutions that focus on providing high-quality, cost-effective undergraduate education; avoiding "mission creep" and increases in research capacity that come at the expense of productivity and undergraduate growth; encouraging collaboration to address unmet educational

needs and underserved regions; assuring effective utilization of facilities; and encouraging and creating new institutions and systems of educational delivery.

Ohio has taken a number of steps to improve productivity in administrative and academic areas, including adopting business practices when appropriate and encouraging collaborative programs, collaborative use of facilities and on-line learning.

SECTION 8: ECONOMIC DEVELOPMENT

WORKFORCE TRAINING, RESEARCH AND TECHNOLOGY TRANSFER

The availability of a well-educated, highly-skilled workforce has been identified as the single most important factor that determines success of business and industry.

- National Alliance of Business

Create more jobs and economic growth by strengthening higher education's research base and the ability to develop and bring to market new ideas and innovations.

- Governor's Commission on Higher Education and the Economy

Economic growth is a challenging issue for Ohio. Four reasons for Ohio's slow economic growth were identified in a Batelle study:

- lack of new business formation
- slow-paced new product innovation
- delayed commercialization of technology from the state's research institutions
- failure to provide sufficient employment opportunities for graduates of Ohio's colleges and universities.

Higher education contributes to Ohio's economy through workforce training, research and technology transfer.

ARE OHIO'S CURRENT LEVELS OF WORKFORCE TRAINING, RESEARCH AND TECHNOLOGY TRANSFER ADEQUATE TO SUPPORT A THRIVING 21ST CENTURY ECONOMY?

What we know:

- All campuses are extensively involved in workforce training.
- Ohio has formed Enterprise Ohio as a network of focused activity on workforce training. More than half of the contract training by the Enterprise Ohio Network is for companies with 100 or fewer employees.
- As the chart shows, Ohio is making progress in reaching national averages in R&D expenditures per capita. In 2005, Ohio was 86% of the national average as compared to 59% in 1985.
- Research expenditures have almost doubled in the past 10 years.
- Ohio's applications for patents, invention disclosures submitted, licenses, options executed and gross license income have increased dramatically since 2001.

- In its *U.S. Licensing Activity Survey: FY 2006,* the Association of University Technology Managers reported that Ohio's public and private universities launched 19 start-up companies in 2006. The publication also highlighted collaboration among Ohio faculty in the development of medical devices to detect strokes.

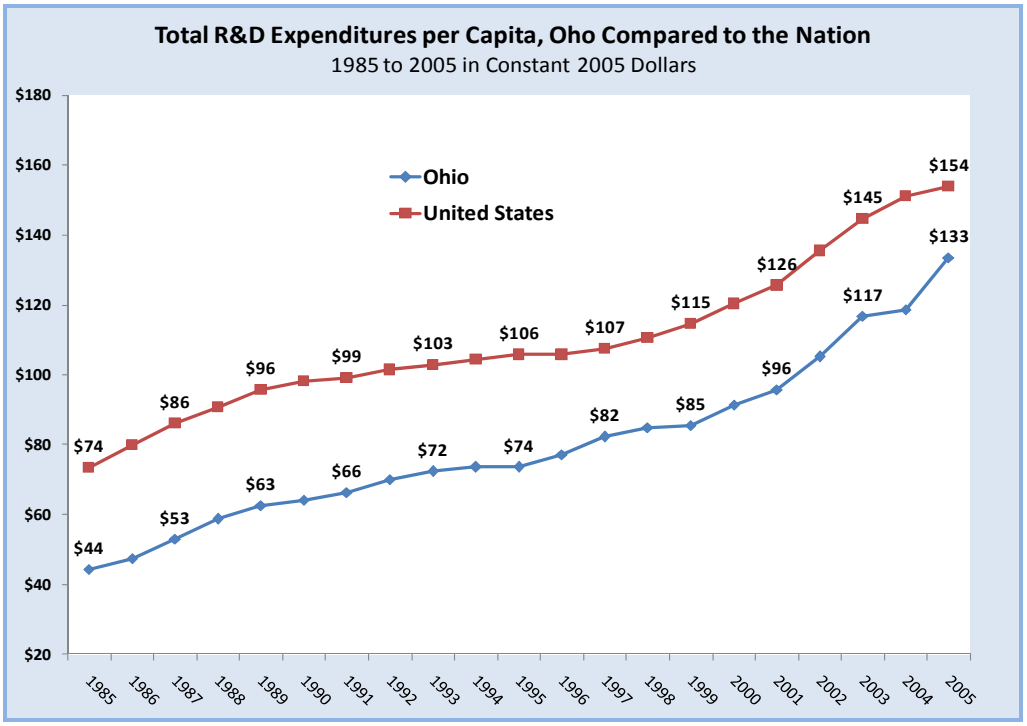
- The new *Ohio Research Scholars Program* will support an increase in the number of highly-qualified faculty in critical STEM and medical areas with a special focus on long-term regional economic development.

- Ohio has created the *Third Frontier Network*, a dedicated high-speed fiber-optic network linking Ohio colleges and universities with research facilities to promote research and economic development.

- Ohio has implemented a number of other programs, including the *Technology Commercialization Incentive Program and Economic Growth Challenge.*

Many Ohio universities have an "Office of Technology Transfer" dedicated to identifying research with potential commercial interest. The processes to commercially exploit research can involve licensing agreements or setting up joint ventures and partnerships to bring new technologies to market. Measures of technology transfer include patents, licensing agreements, joint ventures and partnerships and start-up companies. States are investing in research, technology transfer and innovation using higher education resources to enhance economic growth.

Does Ohio have adequate research space for extensive expansion of research activities?



SECTION 9: SUMMARY AND NEXT STEPS

As other Ohio and national reports have concluded, Ohio's is losing ground in its economic prosperity, which is directly related to educational attainment, workforce training, research and technology transfer. If Ohio is to have college graduates in the numbers and disciplines that it needs for a thriving 21st century economy, how ready is higher education to help Ohio to achieve this important goal? The Regents will assess higher education's condition as follows based on the following criteria:

HIGHER EDUCATION IN OHIO
2008 CONDITION DASHBOARD

Degree Production

Student Persistence

Keeping and Attracting College Graduates in Ohio

Educational Pipeline

Participation in College

Preparation for College

Affordable Colleges and Universities

Breadth and Quality of Higher Education

Available Resources to Support Many More Students

Financial Accountability

Potential for Productivity Improvements

Economic Development through Workforce Training, Research and Technology Transfer

Within the overall context of producing more college graduates and increasing workforce, research and technology transfer efforts, Ohio faces ten significant challenges:

1. Projected declines in the State's youth and working age population.
2. Enrolling and graduating more adults.
3. Improving college-going rates directly from high school.
4. Improving participation and graduation rates in educationally underserved counties.
5. Improving college and university retention, graduation and two-year to four-year transfer rates.
6. Increasing the number of students taking more rigorous high school courses, including *Advanced Placement* and *Postsecondary Education Opportunity* courses.
7. Making higher education more affordable
8. Equitable financial access to 2-year colleges.
9. Increasing state, federal and private investments for education and research.
10. Increasing degree production while maintaining high quality.

The Regents plan to explore in depth certain key areas and identify through research and stakeholder feedback the underlying causes explaining certain trends. Future *Annual Condition Reports* will closely monitor these areas.