



Brain Gain 2010

Building Oklahoma Through Intellectual Power



January 29, 1999

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CONTENTS

Executive Summary	i
Statement of the Problem	1
The Public Benefits of Higher Education.....	1
Student Enrollment, Dropout Rates, Graduation Rates, Student Migration, and Funding	2
Factors that Affect College-Going and Graduation Rates	6
Goals for Increased Degree Attainment in Oklahoma	8
Intervention Strategies to Achieve Degree Attainment Goals	9
Early Indicators of Progress within the Oklahoma State System	12
Conclusion: Improving Degree Attainment in Oklahoma	14

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**BRAIN GAIN 2010:
BUILDING OKLAHOMA THROUGH INTELLECTUAL POWER**

EXECUTIVE SUMMARY

STATEMENT OF THE PROBLEM

Oklahoma lags behind the nation for degree attainment of citizens 25 years and older at both the associate degree level and the bachelor degree level or higher, and the state is not keeping up with the national rate of increase for degree attainment of this population group. Efforts must be made to reverse this trend by improving high school to college-going rates and college graduation rates.

Ancillary benefits of higher education and, specifically increasing the number of Oklahomans with college degrees, include an improved state economy and increased per capita income. The goal for Oklahoma is to meet or exceed the national averages for college degree attainment of individuals 25 years and older by 2010.

STUDENT ENROLLMENT, DROPOUT RATES, GRADUATION RATES, AND FUNDING

- ❑ Oklahoma High School to College-Going Rates
The rate at which high school graduates enroll in colleges and universities directly from high school has declined in recent years (57 percent in 1993-94 to 51 percent in 1996-97). The college-going rate for Oklahoma's 18-year-olds is below the national average (38 percent compared to 40 percent.)
- ❑ College Dropout Rates of First-Time, Full-Time Freshmen
Compared to a national sample of colleges and universities, freshman dropout rates are higher for Oklahoma four-year public universities and about the same for two-year colleges.
- ❑ Five-Year Graduation Rates
Oklahoma's 1992 cohort of students entering regional and comprehensive universities graduated at rates less than the national average in five years.
- ❑ Two-Year College Graduation Rates
Fifteen percent of Oklahoma's 1994 cohort of students entering two-year colleges graduated within three years, while the national average was 34.5 percent over three years.
- ❑ Peer Comparisons Between Oklahoma Comprehensive Universities and Other Big 12 Universities
OU and OSU are in the bottom half in graduation rates of the Big 12 universities.
- ❑ Comparisons between Oklahoma Regional Universities and Peer Institutions
The average graduation rate at peer institutions is 35 percent, ranging from 18 percent at Western New Mexico to 60 percent at the University of Northern Iowa. In Oklahoma, graduation rates for regional universities range between 25 and 39 percent, with all but two schools less than the peer institution average.

- ❑ Funding Data for Research University Peers, Fiscal Year 1997-98
Funding per FTE student at OU and OSU is among the lowest of peer institutions.

FACTORS THAT AFFECT COLLEGE-GOING AND GRADUATION RATES NATIONALLY

- ❑ Higher Education Costs and Financial Access
Between 1980 and 1995, tuition, room, and board at public institutions increased from 11 to 15 percent of median family income.
- ❑ Financial Assistance
As the federal government shifted emphasis from grants (taxpayer burden) to loans (student burden) during the 1980s, students increased their rates of borrowing. The percentage of students borrowing increased 11 percentage points from 1992-93 to 1995-96, and the average amount borrowed each year increased from \$3,000 to \$4,200.
- ❑ Undergraduates are Working More Hours While Attending College
The percentage of full-time postsecondary students at two- and four-year colleges and universities who work while enrolled rose from 34 percent in 1970 to 47 percent in the early 1990s.
- ❑ Type of Student
Students who enroll in college directly from high school and students who enroll in college full-time are more likely to complete a degree than high school students who delay entry to college or students enrolling part-time in college.
- ❑ Time to Complete a Degree is Increasing
In 1993, just 31 percent of four-year college graduates (public and private) completed a bachelor's degree within four years, compared to 45 percent in 1977.
- ❑ Projected Gender-Based Degree-Attainment Gap Favoring Females
In the year 2007, women are expected to earn 369,000 associate degrees compared to 217,000 for men, and in the same year women are expected to earn 735,000 bachelor's degrees compared to 532,000 for men: a 70 percent and 38 percent gap, respectively.
- ❑ Selectivity of Postsecondary Institutions
In 1998, institutional graduation rates at four-year institutions (public and private) with weak admission requirements were dramatically lower than those at more highly selective institutions of the same type: 37.1 percent at open admission colleges and universities compared to 78.2 percent at highly selective institutions.
- ❑ Increased Reliance on Part-Time Faculty
In 1987, 33 percent of faculty worked part time; the rate increased to 42 percent in 1992. Part-time faculty are less likely to offer students advising or mentoring, a factor impacting student retention.

GOALS FOR INCREASED DEGREE ATTAINMENT IN OKLAHOMA

The goal for Oklahoma is to meet or exceed the national averages for college degree attainment of individuals 25 years and older by 2010. This will require doubling Oklahoma's expected growth rate of degree attainment for this population, adding 70,000

associate degree holders (241,900 total associate degrees) and adding 94,000 baccalaureate degree holders (677,320 total bachelor's degrees) to the state's population before 2010.

INTERVENTION STRATEGIES TO ACHIEVE DEGREE ATTAINMENT GOALS

□ Increase the College Enrollment and Student Success Rates

Strengthen the high school curriculum for college admission with the following measures: 1) increase the math and science college entry curricula requirements and insert a writing component in the high school English curriculum and 2) provide higher salaries to address teacher hiring shortages in high demand areas; provide a loan forgiveness program to attract teachers to high demand areas; and use technology for high demand areas.

Expand information services with the following: 1) expand information feedback systems that tie colleges to high schools; 2) provide high school freshmen with higher education orientation experiences, an intervention program informing parents, students, and teachers about the academic preparations required to qualify for scholarships, the requirements for grants, and the financial preparation required; 3) implement a comprehensive communications campaign to inform citizens about the value of higher education; and 4) provide accountability, a consumer information service publicizing institutions' retention rates, graduation rates, and graduates' employment information.

□ Increase College/University Graduation Rates

Link student preparation with graduation with the following measures: 1) create a comprehensive scholarship program that attracts more high school students toward a college experience – technical or academic – and uses high school and college performance criteria, 2) greatly expand the Oklahoma Higher Learning Access Program (OHLAP), and 3) supplement work study funding to promote community involvement of college students.

Provide funding incentives for student persistence and college graduation such as: 1) tuition subsidies or discounts as incentives for students to complete degrees within a specified time period, and 2) student enrollment incentives such as subsidized child care and family health care services.

Strengthen the college curriculum with a continued commitment to integrating technology into the student learning process and to encouraging electronic delivery of courses to broaden student access.

Encourage more flexible delivery of curriculum by providing incentives to institutions for receiving electronic courses, for developing modular or flexible offerings in low service areas, for developing additional advanced standing opportunities, for exploring avenues for expanding college credit awards for competency-based learning, and for creating streamlined and innovative degree plans or “training” oriented degrees.

Strengthen services that support instruction with the following measures: 1) provide funding for institutions to acquire and to operate advanced student information systems such as automated degree auditing and other advising support functions that support academic advising personnel, 2) stimulate more effective institutional enrollment management, 3) facilitate student transfer with more 2+2 programs, and 4)

provide institutions with the resources to hire more full-time faculty and academic counselors to make student advising more effective and improve student retention.

EARLY INDICATORS OF PROGRESS WITHIN THE OKLAHOMA STATE SYSTEM

Short-term views of data show that Oklahoma institutions are producing promising student performance results. Population groups younger than 25 years and older are showing greater degree attainment. In 1993, Oklahoma's public institution degree granting rate for associate and bachelor's degrees (degrees awarded per 100 persons aged 20 and 22 years, respectively) ranked above the national average. In addition, State Regents' data show the recent trend – that the six-year system graduation rate for baccalaureate degrees increased slightly in Oklahoma from 36 percent for fall 1985 entering freshmen to 37 percent for fall 1991 entering freshmen. These results support the many recent State Regents' initiatives to enhance student preparation for college.

CONCLUSION: IMPROVING DEGREE ATTAINMENT IN OKLAHOMA

National and State Regents' data indicate that Oklahoma high school students are not enrolling in public and private higher education institutions in sufficient numbers to match national trends or to meet the state's economic development goals for degree attainment. In addition, the state's public four-year institutions rank below national averages for five-year graduation rates. Policy intervention should target the factors that negatively affect degree attainment.

- ❑ Primarily, more funding is needed at the state level to help counter the effects of shifting from grants to loans at the federal level, to reverse low state funding per FTE student, and to stimulate degree attainment with intervention initiatives.
- ❑ Higher education's public benefits must be communicated more effectively to the general public to generate support for a greater state commitment to education funding and to strengthen the degree attainment among Oklahomans.
- ❑ Pre-college students should be exposed to higher education benefits information, enter high school-to-college bridge programs at early ages, and be assigned college student mentors in time to develop higher education expectations--especially for at-risk students.
- ❑ Better institutional accountability measures must be identified that more effectively target student performance problem areas.

BRAIN GAIN 2010: BUILDING OKLAHOMA THROUGH INTELLECTUAL POWER

STATEMENT OF THE PROBLEM

Oklahoma lags behind the nation for degree attainment of citizens 25 years and older at both the associate degree level and the bachelor degree level or higher. Furthermore, Oklahoma is not keeping up with the national rate of increase for degree attainment of this population group.¹ Concomitantly, there is wide variation in educational attainment across Oklahoma, and the higher education needs vary significantly. In some Oklahoma counties, part-time adult students have difficulty accessing college and university offerings; in others, high school graduates do not have convenient access. In 63 of Oklahoma's 77 counties, college participation rates are low by one or more measures.

Efforts must be made to reverse these trends, in part, by improving the high school to college-going rates and college/university graduation rates--two areas where Oklahoma lags behind national averages. Higher education can help improve these performance characteristics and assist the Oklahoma business and government leaders who target greater degree attainment as a pivotal variable for improving the state's economy and for raising the per capita income of Oklahoma's citizens. The goal for Oklahoma is to meet or exceed the national averages for college degree attainment of individuals 25 years and older by 2010.

This report re-affirms the benefits of higher education degree attainment, analyzes trends of enrollment and graduation rates, identifies factors that affect college-going and graduation rates, proposes goals for increased degree attainment, explores intervention strategies that could improve college-going and graduation rates, and recognizes early indicators of progress within the State System.

THE PUBLIC BENEFITS OF HIGHER EDUCATION

Oklahomans benefit from higher education, even if they do not take college courses. Typically, policy makers emphasize the private individual gains of obtaining a higher education degree. While it is true that citizens with college degrees earn more money² and are more frequently employed,³ higher education's public benefits are equally important. The public benefits are especially important to Oklahomans, because some of the state's social characteristics have been linked to lagging economic development: low education attainment, high teen birth rate, high crime rate, high bankruptcy rate, irregular labor

¹ U.S. Department of Commerce, Bureau of the Census, Current Population Survey, 1996. An additional 72,300 Oklahomans in this age group would need to earn a bachelor's degree for the state to match the national average. Census Bureau information indicates that the percent of Oklahomans 25 and older with a bachelor's degree or more rose from 17.8 percent in 1990 to 19.1 percent in 1995 [+1.3 percentage points], albeit this rate of increase was slower than the nation's increase--20.3 percent to 23 percent for 1995 [+2.7 percentage points]: Census Bureau: 1994 Digest of Education Statistics and the 1995 Current Population Survey.

² In 1995, the median annual earnings of young adults aged 25-34 who completed a bachelor's degree or higher were substantially more than those who only completed high school (52 and 91 percent more for males and females, respectively). Young adults aged 25-34 who completed some college also earned more than those who only completed high school (11 and 28 percent more for males and females, respectively). Between 1974 and 1995, the earning advantage of obtaining a bachelor's degree or higher increased dramatically for males, rising from 14 to 52 percent: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education 1997* (Indicator 33).

³ According to the January 1998 employment report from the U.S. Department of Labor, unemployment rates for individuals with a bachelor's degree or more are half that of individuals with a high school degree--1.9 percent compared to 3.9 percent: The Institute for Higher Education Policy, *Reaping the Benefits: Defining the Public and Private Value of Going to College* (Washington, D.C., March 1998) 16.

activity, and high divorce rate. Oklahoma research also indicates that low worker productivity and excessive reliance on government transfer payments diminish Oklahoma's chances of increasing personal per capita income.⁴

Recently, the Institute for Higher Education Policy stressed the public benefits of higher education attainment: increased tax revenues to the state, greater worker productivity, increased consumption, increased workforce flexibility, decreased reliance on government support, reduced crime rates, increased charitable giving/community service, improved ability to adapt to and use technology, increased quality of civic life, and social cohesion/appreciation of diversity.⁵

STUDENT ENROLLMENT, DROPOUT RATES, GRADUATION RATES, STUDENT MIGRATION, AND FUNDING

Oklahoma High School to College-Going Rates

The rate at which high school graduates enroll in colleges and universities directly from high school has declined in recent years.

- In 1992, Oklahoma's college-going rate was below the national college-going rate as measured by the number of 18-year-olds attending postsecondary institutions: 38.4 percent compared to 40.3 percent nationally, ranging from 19.8 to 60.8.⁶
- The percentage of new 17-, 18-, and 19-year-old students enrolled in Oklahoma colleges and universities decreased from 56.9 percent of 31,653 high school graduates in 1993-94 to 51.3 percent of 33,716 high school graduates in 1996-97.⁷
- Recently the number of Oklahoma high school graduates increased from 31,653 in 1992-93 to 33,645 in 1996-97 and is projected to increase to 39,174 in 1999-2000. Before 1992-93, the number of Oklahoma high school graduates was declining: from 37,828 in 1987-88 to 31,653 in 1992-93, affecting degree attainment levels in later years.⁸
- A ten-year comparison of unduplicated fall headcount enrollment shows a slight increase in enrollment in Oklahoma public colleges and universities: from 151,030 in fall 1987 to a peak of 163,988 in fall 1992, then declined to 152,970 in fall 1997.⁹

⁴ Alexander Holmes, Donald Murry, Kent Olson, and Larkin Warner, *State Policy and Economic Development in Oklahoma: 1998* (Oklahoma 2000, INC.) 14. References to low worker productivity and transfer payments are found on pp. 4 and 45, respectively.

⁵ *Reaping the Benefits: Defining the Public and Private Value of Going to College*, 20.

⁶ U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), *Residence of First-time Students Survey*.

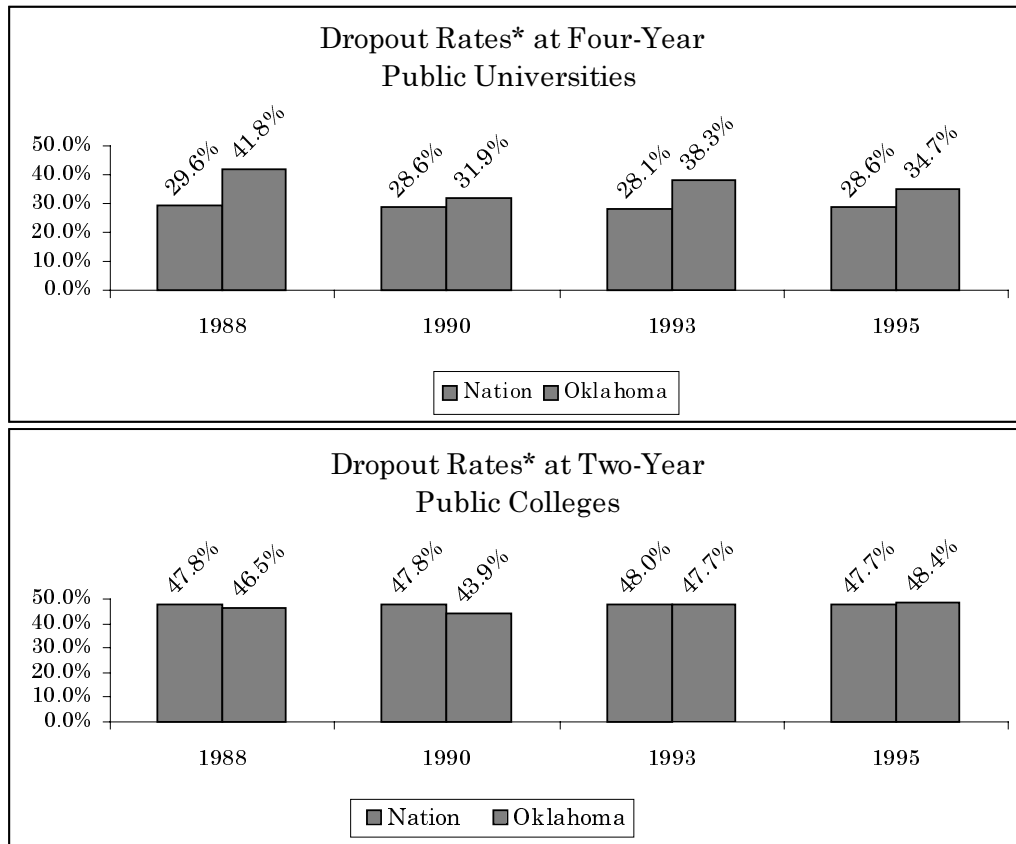
⁷ Oklahoma High School Indicators Project, *High School to College-Going Rates of 17-18-19-Year-Old Students*, August 1994 and October 1997 (public and private institutions).

⁸ Student Data Report, *Oklahoma Higher Education 1996-97*, Oklahoma State Regents for Higher Education, February 1998, Figure 23, p.133.

⁹ Student Data Report, *Oklahoma Higher Education 1996-97*, Oklahoma State Regents for Higher Education, February 1998, Table 11, p. 54.

College Dropout Rates of First-Time, Full-Time Freshmen

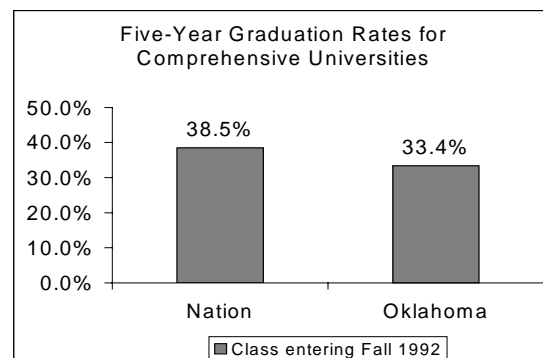
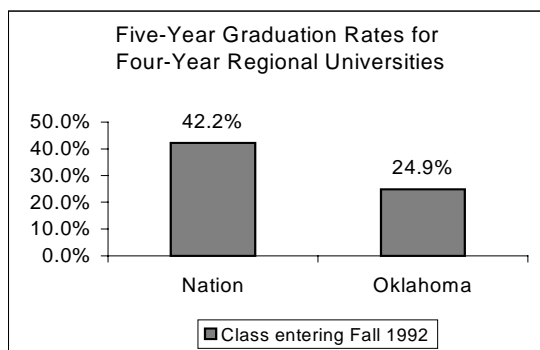
Compared to a national sample of colleges and universities, freshman dropout rates are higher for Oklahoma four-year public universities and about the same for two-year colleges.



*Dropout rates are for first-time, full-time freshmen who did not return to the same institution the following year. Source: National data provided by ACT's annual National College Dropout and Graduation Rates report, which summarizes self-reported percentages for two- and four-year public and private postsecondary institutions according to educational levels, based on degrees awarded, and five levels of admission selectivity.

Five-Year Graduation Rates

Oklahoma's 1992 cohort of students entering regional and comprehensive universities graduated at rates less than the national average in five years. (Even though the six-year graduation rate is more commonly used among institutions, the report needed to use ACT data, which is configured in five-year rates, to obtain a national comparison.)



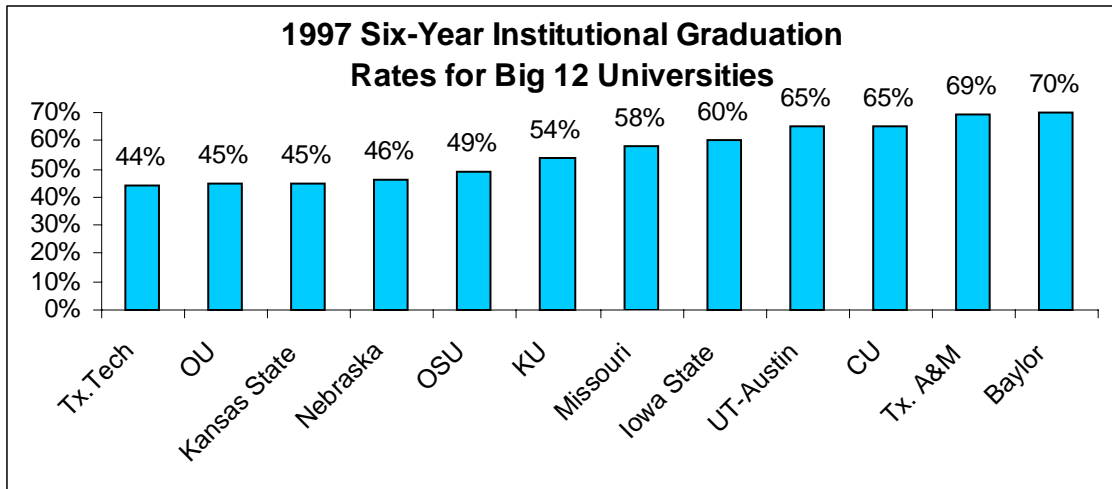
Sources: Oklahoma data from the Oklahoma State Regents for Higher Education Unitized Data System (UDS). National data from the ACT's National College Dropout and Graduation Rates Report, 1997.

Two-Year College Graduation Rates

Fifteen percent of Oklahoma's 1994 cohort of students entering two-year colleges graduated within three years, while the national average was 34.5 percent over three years.¹⁰

Peer Comparisons Between Oklahoma Comprehensive Universities and Other Big 12 Universities

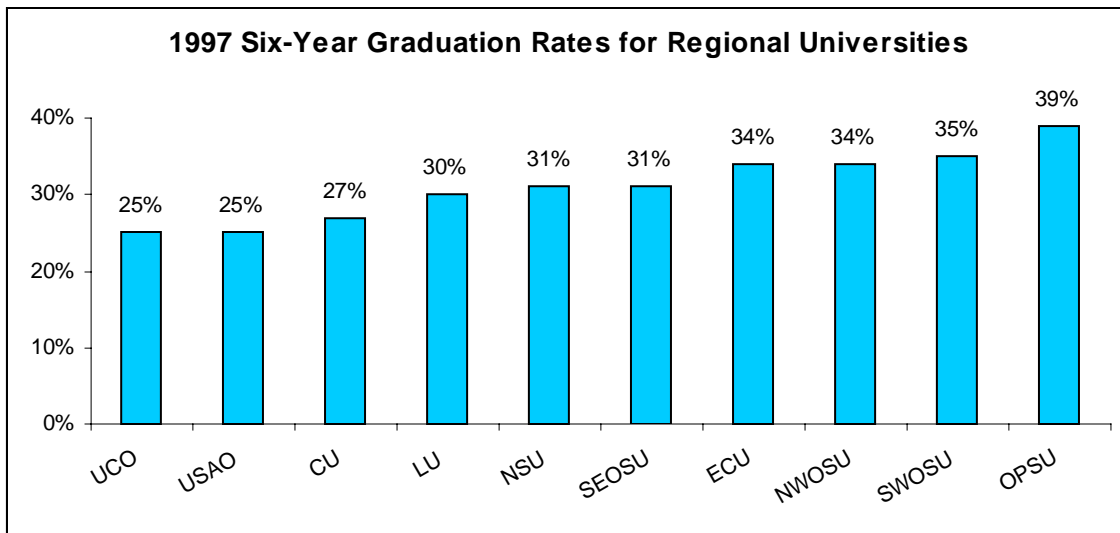
OU and OSU are in the bottom half in graduation rates of the Big 12 universities



Source: U.S. News and World Report, *America's Best Colleges 1999*; the percentages of freshmen who graduated within six years were averaged over the classes entering between 1988 and 1991 if more recent data were not provided.

Comparisons between Oklahoma Regional Universities and Peer Institutions

The average graduation rate at peer institutions is 35 percent, ranging from 18 percent at Western New Mexico to 60 percent at the University of Northern Iowa.



Source: U.S. News and World Report, *America's Best Colleges 1999*; the percentages of freshmen who graduated within six years were averaged over the classes entering between 1988 and 1991 if more recent data were not provided.

¹⁰ Sources: Oklahoma data from the Oklahoma State Regents for Higher Education Unitized Data System (UDS). National data from the ACT's *National College Dropout and Graduation Rates, 1997*

Student Migration Rates

In fall 1996, the percent of first-time freshmen who migrated into Oklahoma higher education is slightly higher (12.5 percent) than the percentage of Oklahoma's first-time freshmen who enrolled in out-of-state institutions (10 percent).¹¹

College/University Graduate Migration Rates

Oklahoma students at state system colleges and universities tend to stay in Oklahoma after graduation. Of all the associate degree recipients between 1992 and 1997, 86 percent is either working in Oklahoma or enrolled in higher education as of 1998. Similarly, of the bachelor degree recipients, 77 percent are either employed in Oklahoma or attending college in Oklahoma.¹²

Funding Data for Research University Peers, Fiscal Year 1997-98

Funding per FTE student at OU and OSU is among the lowest of peer institutions.¹³

Institution	State	Total FTE	State Appropriations	Tuition Revenue	Per FTE Total Revenue
University of Michigan	MI	35,196	256,357,413	316,752,543	16,283
University of Minnesota	MN	26,500	290,000,000	104,360,000	14,882
University of Wisconsin	WI	31,576	288,000,000	146,000,000	13,744
Ohio State University	OH	38,484	295,924,647	223,536,774	13,498
Indiana University	IN	28,042	159,181,635	175,530,384	11,936
University of Iowa	IA	22,618	158,536,569	79,268,284	10,513
Iowa State University	IA	22,177	155,276,842	74,893,444	10,378
University of Illinois	IL	45,915	345,423,000	105,222,300	9,814
Purdue University	IN	33,609	191,942,058	131,870,106	9,634
University of Nebraska	NE	18,591	120,479,784	54,721,789	9,423
University of Kansas	KS	22,007	111,518,938	69,749,380	8,236
Kansas State University	KS	18,335	97,747,146	44,143,423	7,739
Totals		343,050	2,470,388,032	1,526,048,427	11,649

	Budget Need FTE	FY 98 State Appropriation	FY 98 Budgeted Tuition Revenue	Per FTE Total Revenue
University of Oklahoma	19,120	104,160,026	42,773,985	7,685
Oklahoma State University	16,802	100,598,216	39,273,500	8,325

Source: State Regents Annual "Tuition Rates, Enrollment and Revenue" Survey of Peer Institutions, September 1997.

¹¹ Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Data System (IPEDS), "Fall Enrollment Survey", Fall 1996.

¹² Oklahoma Employment Security Commission and the State Regents United Data System (UDS).

¹³ At the State System level, including all two-year colleges and universities, Oklahoma students are funded at 64 cents on the dollar compared to student funding at regionally located peer institutions *1998-99 State Appropriated Budget Needs*, Oklahoma State Regents for Higher Education (December 1996) 40. Oklahoma average per student funding is \$5,427 compared to \$8,633 in the peer group.

FACTORS THAT AFFECT COLLEGE-GOING AND GRADUATION RATES

Higher Education Costs and Financial Access

The cost of postsecondary education is rising. Between 1980 and 1995, tuition, room, and board at public institutions increased from 11 to 15 percent of median family income. This increase was larger for lower income families than for higher income families (from 22 percent in 1980 to 32 percent in 1995 and from 7 percent in 1980 to 9 percent in 1995, respectively).¹⁴ Historically, Oklahoma has been a low per capita personal income state – 80 percent of the national average – making financial access especially crucial to improvement of this state's degree attainment levels.

Financial Assistance

In 1995, the Institute for Higher Education Policy reported that each \$1,000 increase in loan aid produced a 3-percent increase in drop-out rates, but a \$1,000 increase in grant aid produced a 14-percent decrease in drop-out rates.¹⁵ As the federal government shifted emphasis from grants (taxpayer burden) to loans (student burden) during the 1980s, students increased their rates of borrowing. Between 1992-93 and 1995-96, the percentage of undergraduate students attending public four-year institutions who borrowed from federal loan programs during the academic year increased by 11 percentage points and by 10 percentage points at private four-year institutions. The average amount borrowed in each year for this period increased from \$3,000 to \$4,200 at public four-year institutions. Federal loan borrowing also increased during the same period among dependent undergraduates of families making \$50,000 or more--up 22 percentage points.¹⁶

Undergraduates are Working More Hours While Attending College

The percentage of full-time postsecondary students (public and private) aged 16 to 24 at two- and four-year colleges and universities who work while enrolled rose from 34 percent in 1970 to 47 percent in the early 1990s. During this same period, the percentage of students aged 16 to 24 working 20 or more hours per week almost doubled, from 14 to 27 percent. In addition, 83 percent of part-time postsecondary students in the same age group were employed, with 73 percent working at least 20 hours per week. Postsecondary students who enrolled in 1989-90 and worked full time were less likely to attain a degree or to remain enrolled by 1994 (31 percent) than those students working 1-15 hours per week (79 percent). In 1995-96, students working 21 hours a week or more reported that work reduced their class choices and affected their academic performance. Integration into campus life was made more difficult.¹⁷

Type of Student

Direct Versus Delayed College Entry: Students who entered postsecondary education in 1989-90 at age 18 or younger were more than twice as likely (51 versus 19 percent) as those who entered between ages 20 and 29 to report completing a bachelor's degree within five

¹⁴ National Center for Education Statistics, *The Condition of Education 1997* (Indicator 12).

¹⁵ Michael Mumper, "Beyond Financial Aid: Alternative Approaches to Improving College Participation," *The Review of Higher Education* 22 (Fall 1998) 92; Mumper references the IHEP's 1995 report *The Next Step: Student Aid for Student Success*, 21. This report recommends shifting student aid emphasis from student access to student persistence.

¹⁶ *Condition of Education 1998* (Indicator 15).

¹⁷ *The Condition of Education 1997*, (Indicator 50, 13). The affect on student performance is in National Center for Education Statistics, *Profile of Undergraduates in U.S. Postsecondary Institutions: 1995-96* (May 1998, NCES 98-084) 1."Postsecondary students" includes public and private 2-year and 4-year undergraduate institutions.

years, and five times more likely than students who entered at age 30 or later. Lower social-economic status students are more likely to delay entry.¹⁸

Full-Time or Part-Time Students: Half of bachelor's degree seekers (52 percent) who first enrolled in 1989-90 on a full-time basis reported completing that degree within five years, compared to 15 percent or less of those who first enrolled less than full-time. Approximately 42 percent of associate degree seekers at two-year institutions who attended full-time attained the degree they sought or a higher degree after five years, compared to just 18 percent of those who attended less than half-time.¹⁹

Adult Education Students: The percent of adults who participated in adult education activities increased from 32 percent in 1991 to 40 percent in 1995. Of those 1995 adults, just 6 percent took part-time courses related to a diploma, degree, or certification. Most adults took courses related to work or personal development.²⁰

Time to Complete a Degree is Increasing

The length of time it takes for postsecondary students to attain a bachelor's degree is increasing. Nationally, in 1993, just 31 percent of four-year college graduates (public and private) completed a bachelor's degree within four years, compared to 45 percent in 1977. The percentage of four-year college students who take longer than six years to complete a bachelor's degree rose from 25 percent in 1977 to 30 percent in 1993. A similar trend is evident in Oklahoma. For students entering public four-year institutions in 1985 through 1991, the percent of students graduating within four years decreased over a seven-year period (11.3 to 10.6), while the percent graduating within six years increased over the same period (30.9 to 34.1).²¹

Projected Gender-Based Degree-Attainment Gap Favoring Females

A gender-based gap in future degree attainment is projected to widen by 2007. In the year 2007, women are expected to earn 369,000 associate degrees compared to 217,000 for men, and in the same year women are expected to earn 735,000 bachelor's degrees compared to 532,000 for men: a 70 percent and 38 percent gap, respectively.²²

Selectivity of Postsecondary Institutions

Institutional graduation rates are directly related to the academic selectivity of the admitting institution. In 1998, institutional graduation rates at four-year institutions (public and private) with weak admission requirements were dramatically lower than those at more highly selective institutions of the same type: 37.1 percent at open admission colleges and universities compared to 78.2 percent at highly selective institutions. In addition, graduation rates declined more from 1983 to 1998 at public four-year institutions than at private four-year institutions--9.3 and 3.3 percentage points, respectively.²³

¹⁸ *The Condition of Education 1998* (Indicator 12).

¹⁹ Information on bachelor's degree seekers is in *The Condition of Education 1998* (Indicator 12) and information on two-year degree seekers is in *The Condition of Education 1996* (Indicator 11). Degree seekers are from public and private postsecondary institutions.

²⁰ *The Condition of Education 1998* (Indicator 13).

²¹ *The Condition of Education 1996* (Indicator 11). Oklahoma data is in the Oklahoma State Regents' Unitized Data System, Cohort 2.

²² National Center for Education Statistics, *Projections of Education Statistics to 2007* (NCES 97-382) 60-61.

²³ Mortenson, "Institutional Graduation Rates by Control, Academic Selectivity, and Degree Level, 1983 to 1998," 3-4.

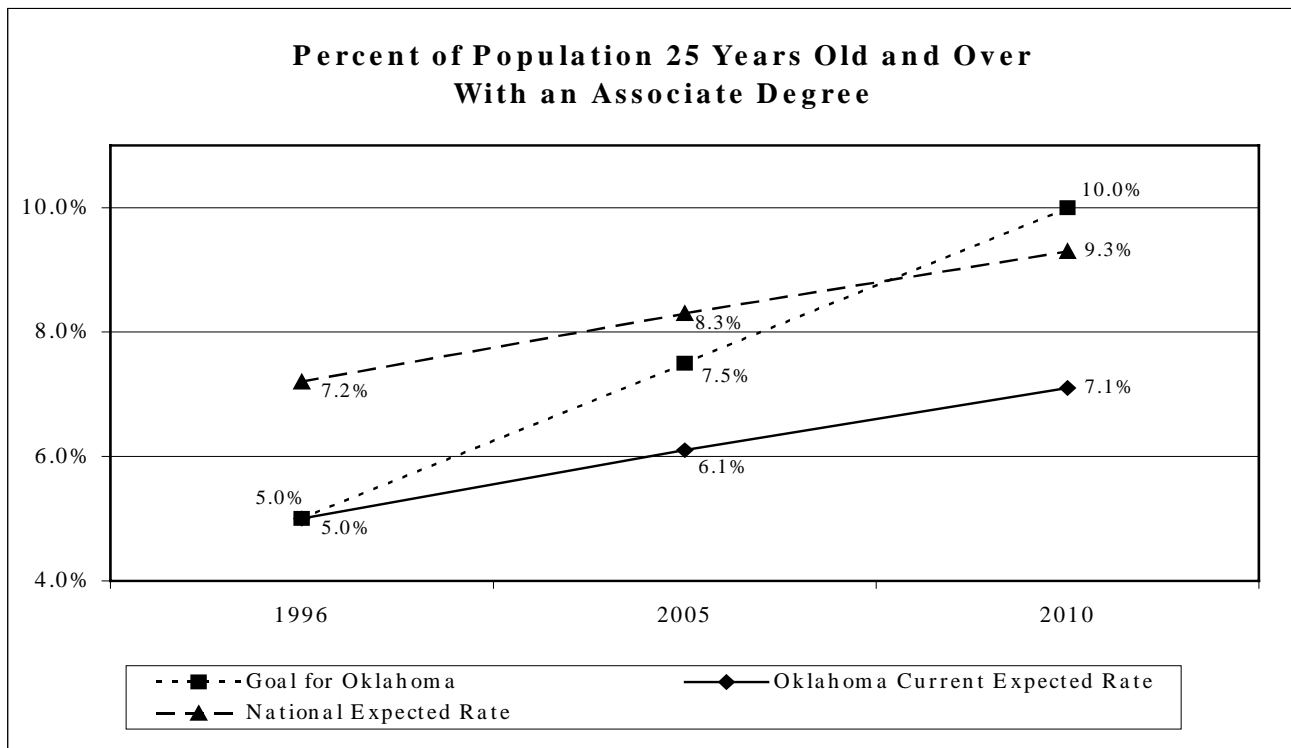
Academic selectivity measures and family income share a strong positive correlation. High school students from low income families are less likely to qualify for the more selective four-year colleges.¹ This means that students from high income families are far more likely to graduate from college with a bachelor's degree than students from low income families.

Increased Reliance on Part-Time Faculty

Part-time faculty are less likely to offer college students continued advisement or to provide sustained mentoring services than full time faculty on campus, a factor impacting student retention. In fall 1992, 42 percent of postsecondary (public and private) instructional faculty and staff worked part time, up from 33 percent in fall 1987.²

GOALS FOR INCREASED DEGREE ATTAINMENT IN OKLAHOMA

The goal for Oklahoma is to meet or exceed the national averages for college degree attainment of individuals 25 years and older by 2010. This will require doubling Oklahoma's expected growth rate of degree attainment for this population, adding 70,000 associate degree holders (241,900 total associate degrees) and adding 94,000 baccalaureate degree holders (677,320 total bachelor's degrees) to the state's population before 2010. Higher education can contribute to this goal by increasing the rates at which students attend and graduate from college.

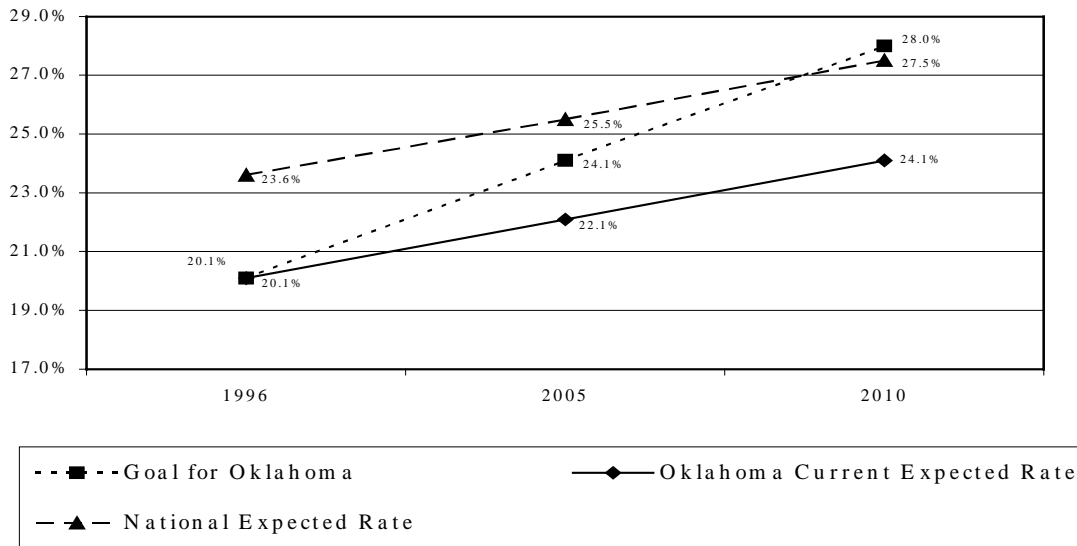


Source: U.S. Department of Commerce, Bureau of the Census, Decennial Census: Educational Attainment of Persons 25 years Old and Over, by State (April 1990). Bureau of the Census, Current Population Reports: Educational Attainment in the United States, Update March 1996, by Jennifer C. Day and Andrea E. Curry, July 1997, P20-493.

¹ High correlation statement is in Mortenson, "Institutional Graduation Rates by Control, Academic Selectivity, and Degree Level, 1983 to 1998," 4. In 1992, high school graduates from high income families (86 percent) were more likely than middle income (68 percent) or low income (53 percent) graduates to be very highly qualified for 4-year college admission: *The Condition of Education 1998* (Indicator 8).

² *The Condition of Education 1998* (Indicator 60).

**Percent of Population 25 Years and Over
With a Bachelor's Degree or Higher**



years Old and Over, by State (April 1990). Bureau of the Census, Current Population Reports: Educational Attainment in the United States, Update March 1996, by Jennifer C. Day and Andrea E. Curry, July 1997, P20-493.

INTERVENTION STRATEGIES TO ACHIEVE DEGREE ATTAINMENT GOALS

The Higher Education Amendments of 1998 re-authorizing the Higher Education Act of 1965 contain incentive funding provisions for intervention programs. Several of the intervention strategies introduced in this document match the federal grant objectives. For example, 1) funding is available for loan forgiveness of teachers who teach in high-poverty schools; 2) institutions will be required to use seven percent of their work-study funds for community service beginning in FY 2000; and 3) states will have new flexibility to use available State Student Incentive Grant program matching funds for programs related to early college awareness, college transition, and community service. In addition, Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) funds partnerships among a higher education institutions, middle schools, secondary high schools, and community organizations.

INCREASE THE COLLEGE ENROLLMENT AND STUDENT SUCCESS RATES

K-12 Strategies.

- Strengthen the K-12 Priority Academic Student Skills (PASS) program with a mandatory remediation program that removes academic deficiencies before students advance to higher grades.
- Introduce state funding for the State Department of Education's (SDE) ACT incentive program; expand state funding for the SDE's Advanced Placement Incentive Program, and initiate Governor Frank Keating's 4x4 proposal with specified core courses.

Higher Education Strategies

□ Strengthening High School Curriculum for College Admission

1. There is widespread agreement among academic officers that higher education must increase the college entry curriculum standards to further strengthen high school student performance. Recommendations are: a) increase the high school math requirements from three to four curricular units using the same list of courses—Algebra I and II, Geometry, Trigonometry, Math Analysis, and Calculus, b) require a writing component to be incorporated in the currently required four units of English and explore how ACT can measure this writing competency, and c) recommend a third lab science course.
2. To support qualified teachers in the math and science curricula areas, expand state funding for increased teacher salaries in high demand hiring areas, establish a loan forgiveness program for high teacher demand areas, expand the State Regents' Eisenhower Math and Science Program, and use technology to deal with high demand areas.
3. With more funding, expand student education programs such as the Summer Academies.

□ Expand Information Services

1. Strengthen performance information feedback systems from colleges to high schools (State Regents' Educational Planning and Assessment System [EPAS] and High School Indicators Report).
2. Provide a higher education orientation experience for high school freshmen to develop early higher education expectations.
3. Initiate the Statewide Early Intervention Program as proposed by the Oklahoma Guaranteed Student Loan Program (OGSLP) that would inform parents, students, and teachers about the academic preparations required to qualify for scholarships, the requirements for grants, and the financial preparation required to prevent the need to borrow large sums of funds to cover educational costs. Default prevention funds authorized by the 1998 Reauthorization Bill of Higher Education Act will partly fund this effort.
4. Undertake a comprehensive communications campaign to inform a variety of audiences about the value and benefits of Oklahoma higher education and the academic, financial, and career planning programs available to help Oklahomans achieve their education and career goals.
5. Emphasize consumer information. Develop and publicize indicators for each institution: retention rates, graduation rates, employment of graduates, earnings of graduates, etc.
6. For non-traditional adult students, expand the Oklahoma Marketplace to include a listing of training needs by Oklahoma business and industry and provide start-up funds for colleges and universities to develop training programs that serve business and industry demands.
7. Explore other state strategies that support successful student transition from secondary to postsecondary education (see SHEEO/ACT 1998 study of state strategies).

INCREASE COLLEGE/UNIVERSITY GRADUATION RATES

□ Link Student Preparation with College Graduation

1. Create a statewide comprehensive scholarship program that attracts more high school students toward a college experience—technical or academic. Linking secondary preparation to college performance, scholarships can require students to perform well in high school, to enroll in college directly from high school, to enroll full time in college, and to perform well in college. Performance qualifications for awards can be progressive to emphasize student inclusion--award lesser scholarship amounts to students with lower ACT scores and greater amounts for students with higher ACT scores who pursue baccalaureate degrees. Some states such as Kentucky, and Louisiana have started new, statewide scholarship programs that share many of the above characteristics (Louisiana's TOPS--Tuition Opportunity Program for Students and Kentucky's KEES--Kentucky Educational Excellence Scholarship).
2. Significantly increase funding for an expanded, more comprehensive Academic Scholars Program that is more inclusive of all three tiers: comprehensive universities, regional universities, and community colleges. Introduce a progressive quality standard that provides smaller awards for lower ACT scores and greater awards for higher ACT scores.
3. Greatly expand the State Regents' Oklahoma Learning Access Program's (OHLAP) eligibility requirements, increase its recruitment efforts, and target students at younger ages—elementary and middle school.
4. Supplement work-study funding and expand community service options for college students. Examples of service include tutoring adults for the GED or for college remedial course work and having college students form person-to-person mentoring relationships with at-risk high school students for development of higher education expectations.
5. Coordinate with and supplement funding of federal TRIO programs, two of which (Upward Bound and Talent Search) bridge high school student experiences to college campuses.

□ Funding Incentives for Student Persistence and College Graduation

1. Undertake a comprehensive examination of Oklahoma's student aid/student cost structure in light of the new federal student aid opportunities and make recommendations that will achieve educational attainment goals.
2. Provide tuition subsidies or discounts as incentives for students to complete degrees within a specified time period, e.g., a bachelor's degree within four years.
3. Provide student enrollment incentives such as subsidized child care and family health care services. Explore interagency cooperative alternatives and consider outsourcing to private business using student subsidies/vouchers.

□ Strengthen College Curriculum and Encourage More Flexible Delivery

1. Continue the systemwide commitment to integrating technology into the student learning process. Technology is expanding the number of avenues for introducing students to knowledge, adding to the traditional instructor-centered lecture delivery model. Introducing technology to instruction will improve the academic performance of

Oklahoma's college students with varied learning approaches and student-centered learning opportunities that are self-paced. In addition, electronic delivery will improve programming through the importing of courses and expand student access to courses.

2. Provide institutional incentives (such as receive site funding) for importing courses and programs that are directly targeted at improving identified low-participation rates.
3. Develop modular or flexible offerings to fit the schedule/needs of working adults, especially in higher education low service areas where access is limited, and low degree attainment is most critical.
4. Provide institutions incentives to develop and publicize additional advanced standing opportunities for students to and explore avenues for expanding college credit awards for competency-based learning.

□ Services Supporting Student Learning

1. Provide funding for institutions to acquire and operate advanced student information systems such as automated degree auditing and other advising support functions that support academic advising personnel.
2. Stimulate more effective institutional enrollment management with a call for enrollment development plans and added funding for college recruitment, student retention, enrollment research, and program implementation.
3. Seek policies and practices that further enhance two-year to four-year college student transfer activity, including 2 + 2 programs, and expansion of the Course Equivalency Project.
4. Enhance student advisement with more funding to institutions for counseling services and for hiring more full-time faculty.

EARLY INDICATORS OF PROGRESS WITHIN THE OKLAHOMA STATE SYSTEM

A Short-Term View of Student Performance

Oklahoma's graduation rate is unlikely to accelerate until the majority of college students who benefited from better college preparation in the early to mid-1990s have the time to graduate within the six-year window typically used to calculate graduation rates. For example, the State Regents' increase of high school curricular requirements for college admission (11 to 15 courses) became effective fall 1997. Other State Regents' policy initiatives that strengthened college admission standards, raised college retention standards, created mandatory assessment for student placement, formed a common general education core, and reformed teacher preparation were not in place until the early to mid-1990s. Furthermore, the declining number of high school graduates in Oklahoma from 37,828 in 1987-88 to 31,653 in 1992-93 affected the number of degrees awarded five to six years later. Therefore, a significant amount of time may pass before the degree attainment data for the oldest population group--25 years and older--will climb dramatically. But more short-term views of data show that Oklahoma's institutions are producing promising student performance results.

Population groups younger than 25 years and older are showing greater degree attainment. In 1993, Oklahoma's public institution degree granting rate for associate and bachelor's degrees--degrees awarded per 100 persons aged 20 and 22 years, respectively--ranked above the national average.³ In addition, State Regents' data show the recent trend--that the six-

³ National Center for Education Statistics, *State Indicators in Education 1997* (Washington D.C.) 117, 89-90.

year system graduation rate for baccalaureate degrees increased slightly in Oklahoma from 36 percent for fall 1985 entering freshmen to 37 percent for fall 1991 entering freshmen. Other promising data results for student preparation and student success in colleges and universities appear below in the Student Profiles table.

**OKLAHOMA STATE SYSTEM OF HIGHER EDUCATION
STUDENT PROFILES**

Student Preparation Profile	1987	1998	Difference
A. Percent of College-Bound High School Seniors Taking the ACT Test	54%	68%	+14 % points
B. Percent of College-Bound High School Seniors Taking the ACT 13-Unit Core Curriculum	30%	55%	+25 % points
C. <u>Average ACT Scores</u>			
National Average	20.8	21	+0.2 % point
Oklahoma High School Seniors	19.9	20.5	+0.6 % point
D. Comprehensive Tier Freshmen with ACT =>21 ⁴	59%	81% (1996)	+22% points
E. Regional Tier Freshmen with ACT =>19	42%	59% (1996)	+17% points
F. Remediation of First-Time Freshmen Admitted Directly to College From High School	42% (1994)	34% (1997)	-8 % points
College Performance Profile	1987	1996	Difference
Dropout Rates: First-Time-Entering Freshmen			
--Within the State System--			
G. Comprehensive and Regional Universities	23%	17%	-6% points
H. Two-Year Colleges	35%	34%	-1% points
Graduation Rates (Within the State System)	1991	1997	Difference
I. Graduation Rate Cohorts (<i>freshmen entering fall 1985 and 1991 at all universities who completed a baccalaureate degree in the State System within six yrs.</i>)	36%	37%	+1% points
J. Comprehensive Universities	42%	45%	+3% points
K. Regional Universities	30%	31%	+1% points

What Measures Indicate Student Success in College

The missions of institutions strongly influence what measures best indicate student success. While graduation rate might be an adequate indicator of student performance at four-year institutions, the measure may not work as well for two-year colleges. A significant number of students entering two-year colleges do not intend to get a degree. A better two-year college measure might be course completion rates based on student enrollment status (full or part time). At four year universities, graduation rates may need more categories, i.e., one rate for full time students and one rate for part time students. Graduation rates may need to exclude remediation students. Perhaps a composite success rating could be developed to include a sum of student performance factors: retention rate, remediation success, student transfer rate, course completion rate, and graduation rate.

⁴ The ACT minimum score for entry rose from 21 to 22 in fall 1996.

CONCLUSION: IMPROVING DEGREE ATTAINMENT IN OKLAHOMA

Despite recent increases in the number of Oklahoma high school graduates, both national and State Regents' data indicate that Oklahoma high school students are not enrolling in public and private higher education institutions in sufficient numbers to match national trends⁵ or to meet the state's economic development goals for degree attainment. For fall 1995, dropout rates at both two-year and four-year public institutions were above national averages. Even though Oklahoma's five-year graduation rates for public four-year institutions have increased slightly in the past few years,⁶ contradicting a 15-year decline trend for national averages,⁷ the state's public four-year institutions still rank below national averages and below comparable institutions in the Big 12. Finally, state funding per FTE student is substantially below the peer-institution average for Oklahoma's comprehensive universities, even though Oklahoma experiences a net gain in high school graduates attending in-state institutions.

High school to college-going rates and graduation rates largely determine a state's degree attainment levels. These Oklahoma higher education indicators require improvement if state economic development goals are to be met. Policy intervention should target the factors that negatively affect degree attainment.

- ❑ Primarily, more funding is needed at the state level to help counter the effects of shifting from grants to loans at the federal level, to reverse low state funding per FTE student, and to stimulate degree attainment with intervention initiatives.
- ❑ Higher education's public benefits must be communicated more effectively to the general public to generate support for a greater state commitment to education funding and to strengthen degree attainment among Oklahomans.
- ❑ Pre-college students should be exposed to higher education benefits information, enter high school-to-college bridge programs at an early age, and be assigned college student mentors in time to develop higher education expectations--especially for at-risk students.
- ❑ Better institutional accountability measures must be identified that more effectively target student performance problem areas.

⁵ Between 1986 and 1996, the percentage of high school graduates aged 16-24 going directly to college increased from 54 to 65 percent: *The Condition of Education 1998* (Indicator 7).

⁶ The average five-year institutional graduation rate for all public four-year institutions in Oklahoma rose from 25.6 percent for the 1985 entering student cohort to 26.6 percent for the fall 1992 entering cohort.

⁷ For public four-year institutions, 5-year institutional graduation rates declined from 52 percent in 1983 to 43 percent in 1998 and 3-year institutional graduation rates for two-year colleges declined from 40 percent to 34 percent during the same period: Mortenson, "Institutional Graduation Rates by Control, Academic Selectivity, and Degree Level, 1983 to 1998," 1, 10.