



Higher Education in Wisconsin A 21st Century Status Report

**A Benchmark to Measure
Future Success**

April 14, 2010

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What does the future hold for the State of Wisconsin?

The answer depends on the ability of our workforce to compete for the jobs of tomorrow—not only regionally and nationally, but globally. As this benchmark study shows, Wisconsin is falling behind. Our children will prosper only if we make the commitment now to increase our investment in higher education and keep the Wisconsin Idea alive for future generations.

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Overview

Wisconsin is at a crossroads. Even before the recent economic crisis, the state was lagging behind our peers in Minnesota, Illinois, and Iowa in population growth, per capita income, and the share of the population with more than a high school education. Without a significant investment in education, Wisconsin will continue to fall further behind not only our peers in the Midwest, but the nation as a whole.



The fastest growing portions of our state's population are the least likely to go on to college.

Many states, including Wisconsin, are faced with the challenge of shifting demographics whereby the school-aged population is not growing at a rate sufficient to replace the baby boomers who are exiting the workforce. Similarly, Wisconsin's occupational projections indicate that the vast majority of future middle-class jobs will require more than a high school education.

Wisconsin, however, is particularly ill-suited to meet the challenge posed by the intersection of these two trends. The fastest growing portions of our state's population are the least likely to go on to college—let alone graduate with any kind of college credential.

- Less than one in two Black Wisconsin high school students earns a diploma.¹ Also, college graduation rates for Wisconsin's minority students lag well behind the national averages, for both four- and two-year institutions.²
- The number of Wisconsin students eligible for free and reduced meals in Wisconsin increased from 24 percent in 2000 to 39 percent in 2009—a pattern that holds across rural or urban school districts. Low-income students across all racial and ethnic groups are least likely to graduate.

Wisconsin's future prosperity depends on a marked improvement in the state's education system. Today's young people are the backbone of Wisconsin's future workforce. They will take the places of exiting baby boomers, conduct research and development for the goods and services of the future, and start new companies to bring these goods to global markets. Given increasing skill requirements, the importance of education to workforce preparation has never been clearer.

The findings included in this report are also clear: An increase in Wisconsin's investment in education is essential to improving the state's long-term economic outlook and the quality of life for all its citizens.

Education is the cornerstone of Wisconsin's future economic success



Employment in Wisconsin has been stagnant now for more than a decade.

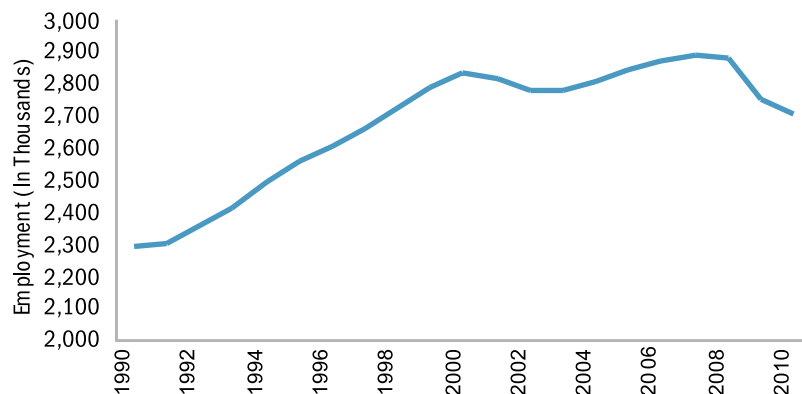
The significance of education for economic and social well-being is widely recognized. A growing body of economic research demonstrates the increasing importance of educational attainment to national economic well-being. Changes in the nature of work over the twentieth century, and into the twenty-first, have bolstered the demand for higher-order skills and boosted the wages that skilled workers command. Education remains the key to social mobility as well, especially for children from low-income families.

The evidence on earnings and income highlights a clear link between education and economic prosperity. We next explore this issue in greater detail by describing key workforce trends, starting with key indicators such as overall employment and unemployment. Because we are mainly interested in the role of education, we then “drill down” and consider the specific occupations where job growth is greatest—along with the education levels those jobs require and the benefits to the education. As we show, the job growth is fastest and salaries are highest in occupations that have postsecondary education requirements. Last, we provide some indication of the benefits of a highly educated workforce to the state as a whole.

THE CURRENT ECONOMY

The state's economic well-being depends on a healthy economy, one that produces job growth and where residents are increasing their level of education. Wisconsin's trajectory of job growth is clearly upward (Figure 1). Much like the rest of the nation and the world, job growth slowed and the rate of unemployment shot up dramatically during the recent recession, to a high of nearly nine percent in December 2009.³ But employment in Wisconsin has been stagnant now for more than a decade and this may signal not only problems with the national economy, but particular problems in Wisconsin.⁴

Figure 1. Average Annual Nonfarm Employment for Wisconsin: 1990-2010



Source: Office of Economic Advisors, Wisconsin Department of Workforce Development



At nearly nine percent, Wisconsin’s current rate of unemployment is below the national average (9.7%) and the Midwest average (10%). Within the Midwest, Michigan has the highest rate of unemployment—over 15 percent and Iowa has the lowest at less than seven percent.⁵ Given Wisconsin’s reliance on manufacturing, which accounted for 31 percent of second quarter layoffs nationally in 2009, the state appears to be weathering the short-term storm relatively well—but as we show later this may mask long-term structural problems in the state.⁶

To set the stage for our discussion of future workforce needs, Table 1 summarizes Wisconsin’s industries and their respective proportion of the workforce. Education and health care top the list comprising over one-quarter (21%) of Wisconsin’s workforce. Manufacturing follows closely with 19 percent of the workforce. Members of the workforce who work in the retail are the third largest group at 12 percent and the rest of the industries represent only in the single digits.

Looking forward, by 2014, the workforce size in Wisconsin is projected to be three times what it was in 1954, with an average of over 90,000 new openings per year.⁷ Roughly 30 percent of those openings are expected to be new jobs (see Appendix Figure 1).

Wisconsin appears to be weathering the short-term storm relatively well—but this may mask long-term structural problems in the state.

Table 1. Employment by Industry of Wisconsin’s Working Population Age 16+

Percentage of Workforce	No. of Workers	Industry
21%	601,943	Educational services, health care, and social assistance
19%	551,317	Manufacturing
12%	329,046	Retail trade
8%	229,987	Arts, entertainment, and recreation, and accommodation, and food services
7%	206,518	Professional, scientific, and management, and administrative and waste management services
7%	185,438	Construction
6%	183,251	Finance and insurance, and real estate
5%	129,181	Transportation and warehousing, and utilities
4%	112,276	Other services, except public administration
3%	95,818	Public administration
3%	94,874	Wholesale trade
3%	71,553	Agriculture, forestry, fishing and hunting, and mining
2%	57,902	Information (Media Related)

Source: 2005-07 Period Estimate, American Community Survey, U.S. Census Bureau

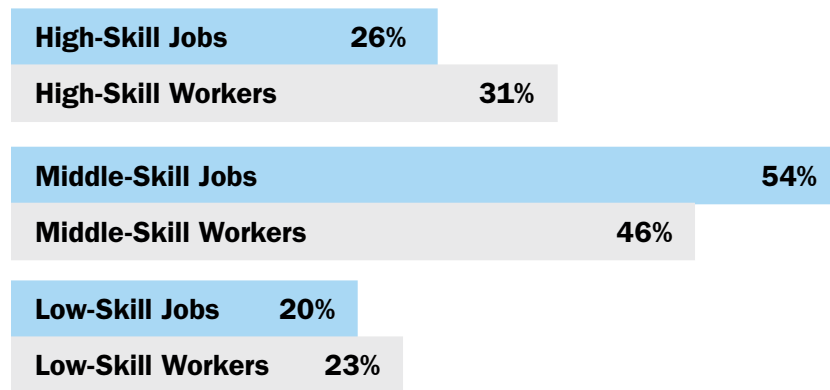
Note: Percents may not add due to rounding.



54 percent of Wisconsin's current jobs require more than a high school diploma but less than a four-year college degree. However, the supply of workers with these skills currently comprises only 46 percent of the workforce.

According to recent estimates, fully 54 percent of Wisconsin's current jobs require more than a high school diploma but less than a four-year college degree and have wages over \$10/hour or an annual average salary of about \$20,000—what analysts term “middle-skill” jobs. However, the supply of workers with these skills currently comprises only 46 percent of the workforce (Figure 2). Positions in the construction, manufacturing, and transportation industries make up a large portion of this category.⁸

Figure 2. Wisconsin's Jobs and Workers by Skill Level: 2007



Source: Center on Wisconsin Strategy. Wisconsin's Forgotten Middle-Skill Jobs.

Middle-skill jobs are an important part of Wisconsin's economic future, making up nearly half of the projected job openings in coming years. In comparison, jobs requiring less education will constitute the smallest portion (one-fourth) of job openings, while those requiring at least a four-year degree will account for 29 percent of openings.⁹ Additionally, although the number of middle-skill workers is projected to increase by almost two percent, this will not fix the current mismatch of workers to workforce needs shown in Figure 2.¹⁰

Not only will middle-skill jobs be half of the projected job openings, but they are a significant portion of the fastest growing occupations in Wisconsin. Table 2 shows that five of the top ten—and over half of the top 25—fastest growing jobs are middle-skill. In this changing economy a college credential will be the norm, almost two-thirds of the 25 fastest growing occupations require at least an associate degree.

Table 2. Top 25 Fastest Growing Occupations in Wisconsin: 2006-2016

Occupational Title	Estimated Employment ⁽¹⁾				Typical Education and Training Path ⁽²⁾	2006 Average Annual Salary ⁽³⁾
	2006	2016	Change	% Change		
Network Systems & Data Communications Analysts	5,150	7,390	2,240	43.5%	Bachelor's degree	\$58,042
Home Health Aides	16,550	23,310	6,760	40.8%	Short-term on-the-job training	\$20,812
Personal & Home Care Aides	22,030	30,540	8,510	38.6%	Short-term on-the-job training	\$19,602
Computer Software Engineers, Applications	8,830	12,170	3,340	37.8%	Bachelor's degree	\$69,811
Medical Assistants	7,120	9,720	2,600	36.5%	Moderate-term on-the-job training	\$27,632
Physician Assistants	1,110	1,480	370	33.3%	Master's degree	\$78,373
Radiation Therapists	490	650	160	32.7%	Associate degree	\$67,848
Personal Financial Advisors	3,170	4,190	1,020	32.2%	Bachelor's degree	\$74,784
Dental Hygienists	4,170	5,470	1,300	31.2%	Associate degree	\$55,069
Dental Assistants	5,340	6,960	1,620	30.3%	Moderate-term on-the-job training	\$29,454
Substance Abuse & Behavioral Disorder Counselors	1,550	2,020	470	30.3%	Master's degree	\$39,904
Physical Therapist Assistants	1,270	1,650	380	29.9%	Associate degree	\$38,206
Surgical Technologists	2,310	2,990	680	29.4%	Postsecondary vocational training	\$41,203
Skin Care Specialists	510	660	150	29.4%	Postsecondary vocational training	\$27,885
Physical Therapist Aides	1,240	1,600	360	29.0%	Short-term on-the-job training	\$24,614
Cardiovascular Technologists & Technicians	700	900	200	28.6%	Associate degree	\$44,814
Social & Human Service Assistants	7,340	9,400	2,060	28.1%	Moderate-term on-the-job training	\$29,355
Veterinary Technologists & Technicians	1,510	1,930	420	27.8%	Associate degree	\$28,104
Pharmacy Technicians	6,300	8,030	1,730	27.5%	Moderate-term on-the-job training	\$25,518
Respiratory Therapists	1,790	2,270	480	26.8%	Associate degree	\$48,842
Computer Software Engineers, Systems Software	2,840	3,600	760	26.8%	Bachelor's degree	\$74,640
Financial Analysts	2,140	2,710	570	26.6%	Bachelor's degree	\$64,017
Registered Nurses	51,130	64,550	13,420	26.2%	Associate or Bachelor's degree ⁽⁴⁾	\$57,376
Physical Therapists	4,060	5,080	1,020	25.1%	Master's degree	\$64,087
Marriage & Family Therapists	720	900	180	25.0%	Master's degree	\$54,128

Source: Office of Economic Advisors, Wisconsin Department of Workforce Development, May 2008

Notes:

(1) Employment is a count of jobs rather than people, and includes all part- and full-time nonfarm jobs.

(2) Typical Education and Training Path gives a general indication of the education or training typically needed in the occupation. There may be other pathways into the occupation, as well as additional educational, training, or licensing requirements.

(3) Average Annual Salary: An occupation's average hourly wage is calculated by summing the wages of all employees in a given occupation and then dividing by the total number of employees in that occupation. In most cases, the annual average salary is equal to the average hourly wage multiplied by 2,080.

(4) Either a bachelor's or an associate degree is accepted in this occupation. It depends on the specifics of the position and the employer.



Wisconsin lags behind other states in the percentage of the state's labor force with higher education credentials, and in growth in production of those credentials.

The promise of a robust economy through better employment opportunities depends on a skilled workforce. And there is some reason for optimism—Wisconsin has witnessed positive changes in the educational attainment of its workforce (Table 3). The biggest shift in the supply of workers was among those with less than a high school degree, a group that experienced a significant reduction in numbers due to the combination of retirements of less educated workers and decline in young adults dropping out of high school. Workers with a bachelor's degree or higher experienced the greatest increase in supply.

Table 3. Wisconsin Labor Force by Educational Attainment, Population Aged 25-64: 2004 to 2008

Education	2004	2008	Percent Change
Less Than High School	207,914	157,038	-32%
High School Graduate	753,430	763,634	+1%
Some College	815,831	847,960	+4%
Bachelor's Degree or Higher	682,264	741,644	+8%

Source: 2004 ACS 1-year estimates, 2008 ACS 1-year Estimates

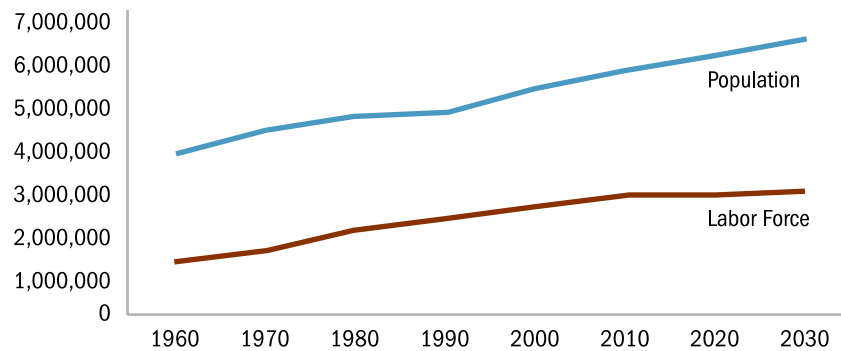
Unfortunately, these gains mask a significant problem—that Wisconsin lags behind other states in the percentage of the state's labor force with higher education credentials, and in growth in production of those credentials. Minnesota and Illinois, our neighbors and competitors, both have a higher percentage of their population aged 25-34 with bachelor's and master's degrees (see Appendix Figures 2-4).

Another mounting pressure on Wisconsin's workforce is the size of the labor force. As Figure 3 shows, the state's population is growing but the labor force is leveling off. Partly because the fastest growing portion of the state's population is its older residents. While we are primarily concerned with the education and productivity of those workers we do have, a stagnant workforce population does make it more difficult for the state to meet its obligations to retirees because the number of workers putting tax dollars into the system will decline.¹¹ Education is one way to offset these unfortunate demographic and economic shifts.



Adults holding BAs earn 19 percent more than high school graduates when they first enter the workforce and that advantage grows to 65 percent for older workers.

Figure 3. Population and Labor Force in Wisconsin: 1960-2000 Estimated and 2000-2030 Projected



Source: Dennis Winters, 2009 “Chief Labor Economist for Wisconsin Department of Workforce Development” WISCAPE forum, Madison, Wisconsin

THE MANY BENEFITS OF EDUCATION

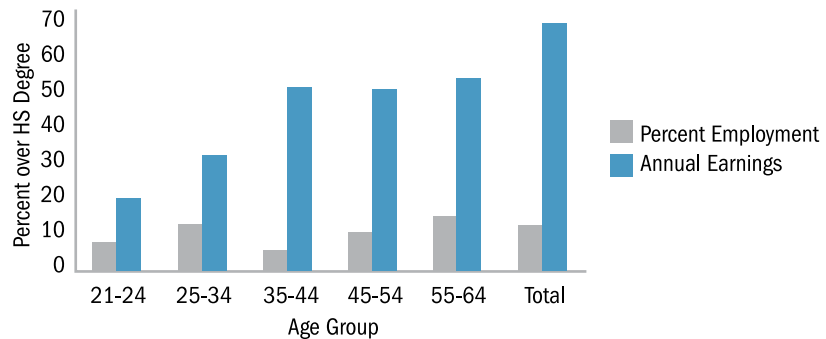
Educational requirements for many jobs have continued to increase, work is becoming more specialized, and quality standards are on the rise. Technology is part of many jobs that previously did not require it. Even the jobs now considered the “old economy”—in manufacturing—are now requiring more advanced skills to use robotics and other high precision equipment.

The economy is also now more dynamic. This means that workers have to be agile and adjust to changing circumstances. Few workers spend their entire careers working mainly in their field of formal training. Part of the purpose of formal education is to help students “learn how to learn” and adjust to new work demands. For all of these reasons, higher education credentials are increasingly a necessity.

There are clear economic advantages for educated workers (Figure 4). Bachelor’s degree holders are more likely to be employed and earn much more than other workers and this holds for every age group. Adults holding BAs earn 19 percent more than high school graduates when they first enter the workforce and that advantage grows to 65 percent for older workers. The fast growth in the earnings premium that comes as workers gain more experience reinforces the idea that BA-earners learn more quickly and become more productive—yielding greater earnings. This is not simply the result of a higher degree leading to a better job since the bachelor’s degree premium occurs within occupations as well (see Appendix Table 1).

Educated workers are also more likely to be employed in any job. For the youngest workers (ages 21-24), those with bachelor’s degrees are eight percentage points more likely to be employed than high school graduates (Figure 4).

Figure 4. Bachelor's Degree Employment and Income Premiums Relative to High School Degree in Wisconsin



Source: US Census Bureau

Individuals with associate degrees earn almost three dollars more per hour than an individual with some college.

All forms of postsecondary education accrue economic benefits. The National Bureau of Economic Research reports that individuals with associate degrees earn almost three dollars more per hour than an individual with some college and that a bachelor's degree holder earns more than six dollars more per hour than someone with an associate degree in Wisconsin in 2007.¹² Census data show slightly smaller wage differences (annual earnings) for individuals with more education, but the general patterns are the same. An individual with a high school diploma makes 38 percent more than someone with less than a high school degree (Table 4). It is also notable that some studies indicate a “tipping point” in terms of credits earned—regardless of degree completion. For example, one study found that students who completed a year of college credits (30) earned from \$1,700-\$8,500 (depending on their entering level of education) more than individual with ten or fewer credits.¹³

Table 4. Educational Attainment of the Wisconsin Adult Population Ages 25 and Older, and Associated Level of Per Capita Income: 2008

	Annual Income	Number of Workers	Percent Income Advantage over Next Lowest Degree Level
Less than High School	\$21,265	389,591	~
High School Diploma	\$29,352	1,264,002	38%
Some College	\$34,478	808,721	17%
Associate Degree	\$38,526	330,632	12%
Bachelor's Degree	\$51,742	642,270	34%
Master's and Above	\$77,162	323,394	49%

Source: U.S. Census Bureau, 2008 American Community Survey and 2007 ACS 1-Year Estimate
 Note: Percents may not add to 100 due to rounding.

A bachelor's degree holder earns more than six dollars more per hour than someone with an associate degree in Wisconsin in 2007.



As noted earlier, job growth is fastest in occupations requiring a college credential and where wage premiums are higher (Tables 2 and 4). These premiums are especially important in the midst of the current recession as Wisconsin workers have seen their incomes fall, even relative to other states. In 2008 dollars, per capita income in Wisconsin has risen by only \$2,700 in the past decade (using 2008 dollars).⁸ While many states have suffered, its rank among states has fallen since 1998—from twentieth to twenty-eighth.¹⁴ Comparatively, Minnesota is far above the national average in personal per capita income, as it experienced nearly a \$4,500 increase in the past decade, making it tenth in the nation.¹⁵

Per capita income in Wisconsin has risen by only \$2,700 in the past decade. Its rank among states has fallen since 1998—from twentieth to twenty-eighth. Comparatively, Minnesota is far above the national average in personal per capita income, as it experienced nearly a \$4,500 increase in the past decade, making it tenth in the nation.

Wages and higher rates of employment are not the only benefits to educated workers. In their seminal research on the effects of education, University of Wisconsin-Madison scholars Robert Haveman and Barbara Wolfe (1984, 2000) cataloged benefits ranging from improved health to reduced crime and higher rates of voting and civic participation. Health benefits range from fewer sick days and less drug use to less teenage pregnancy. The more education people have, the less likely they are to use government services such as welfare and the more likely they are to pay higher taxes.¹⁰

Since today's young people are tomorrow's parents, education indirectly helps future generations. In contrast, growing up in poverty has long-term consequences and this is less likely when parents are well educated. For example, in 2008 sixty-two percent of Wisconsin children residing with parents who have less than a high school diploma lived in poverty. In contrast, only six percent of children with college-educated parents were living in poverty.¹⁶

Finally, education is not just something to feel good about—it makes good sense. In 2004 it cost less than \$10,000 to educate a child for one year but over \$22,000 to house a prisoner.¹⁷ (For information on the savings accrued from an increase in the rate of male high school graduates see Appendix Table 2). Not only is the cost of college paid back to the individual in higher wages, but “over an average lifetime, total government spending per college degree is negative.”¹⁸ In other words, what the government puts into public universities is returned many times over through greater tax collections. Economist Philip Trostel estimates the net effect of one more college educated individual is more than \$480,000 over a lifetime—through increased tax payments and decreased social welfare expenditures.¹⁹ Education is a good investment in the state's economy and quality of life.

Wisconsin's long-term prospects: K-12 education

Wisconsin can expect only a small increase in enrollment (2.2%) between 2006 and 2018. That growth rate puts Wisconsin in the bottom third of all 50 states.



Hopes for the state's economic future clearly rely heavily on the success of today's educational systems. In this section, we examine the state of K-12 education in Wisconsin.

TRENDS BY KEY DEMOGRAPHICS

The population of Wisconsin public school students has declined over the past decade by over six percent. According to the U.S. Department of Education, Wisconsin can expect only a small increase in enrollment (2.2%) between 2006 and 2018. In fact, that growth rate puts Wisconsin in the bottom third of all 50 states (see Appendix Table 3). Total PreK-12 enrollment is approaching one million and high school enrollment is about 325,000 students (see Appendix Table 4). An average of 81,000 students per grade level provides some sense of the likely number of people entering the workforce each year.

As the total numbers have declined somewhat, the racial/ethnic composition of Wisconsin students grows increasingly diverse. White students continue to be the largest group, but they make up a declining share. Table 5 shows that the second largest group is African-Americans, who are currently over ten percent of the total population and growing. The fastest growing group, Hispanics, has doubled in size in just a decade. (See Appendix Table 5 for the distribution of PreK-12 enrollment by race/ethnicity and Cooperative Educational Service Agency (CESA)).

Table 5. Distribution of PreK-12 Enrollment by Race/Ethnicity: 1996-2009

	Total Enrollment	White	Hispanic	African American	Asian	American Indian
1996-1997	878,911	82.6%	3.5%	9.6%	2.9%	1.4%
2008-2009	872,311	76.4%	8%	10.4%	3.7%	1.5%
Percent Change: 1996-2009	-0.8%	-7.5%	+128.6%	+8.3%	+27.6%	+7.1%

Source: Wisconsin Department of Public Instruction²⁰

The trend towards greater diversity in Wisconsin population ages 5-24 will continue according to Census projections (Table 6).

A growing segment of Wisconsin students comes from low-income households.

Growing up in poverty diminishes the chances that Wisconsin's population of high school graduates will attend college and prepare for the fastest-growing careers.

Table 6. Changes in Wisconsin's Population Ages 5-24: 2006-2020

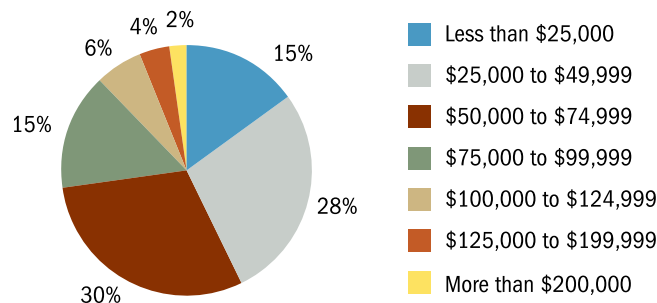
	Total	White	Hispanic	African-American	Asian	American Indian
Population 2006	1,521,386	83%	4%	9%	3%	1%
Projected Population 2020	1,466,482	78%	5%	11%	5%	1%
Projected Population Change 2006-20	-3.6%	-6.0%	+25.0%	+22.2%	+66.7%	+0.0%

Source: The Education Trust http://www.edtrust.org/sites/edtrust.org/files/Wisconsin_0.pdf using U.S. Census Bureau projections of the population in 2020.

Reflecting the statewide stagnation in income, a growing segment of Wisconsin students comes from low-income households. Eligibility for the National School Lunch Program (NSLP) is the best-available proxy for whether K-12 students are from a disadvantaged family background. The number of students who were eligible for subsidized meals in Wisconsin has increased by 15 percentage points since 2000 (from 24% to 39%).²¹ Moreover, the percent of eligible students has increased over three percentage points from the 2008-09 school year to 2009-10.²² This number underestimates the actual number of students living in poverty since many eligible students decline to sign up for that program due to social stigma, inadequate information, and other factors.^{23, 24}

Growing up in poverty diminishes the chances that Wisconsin's population of high school graduates will attend college and prepare for the fastest-growing careers. Students who come from low-income households often have less educational success, are less likely to attend college and therefore are less likely to be well-educated workers in the future.²⁵ This challenge affects the entire state since the majority of Wisconsin households with children fall in the lowest income brackets (Figure 5). In all regions at least one-quarter of students are considered disadvantaged, placing a strain on every school district (see Appendix Table 5).

Figure 5. Income Distribution of Wisconsin Households with Children



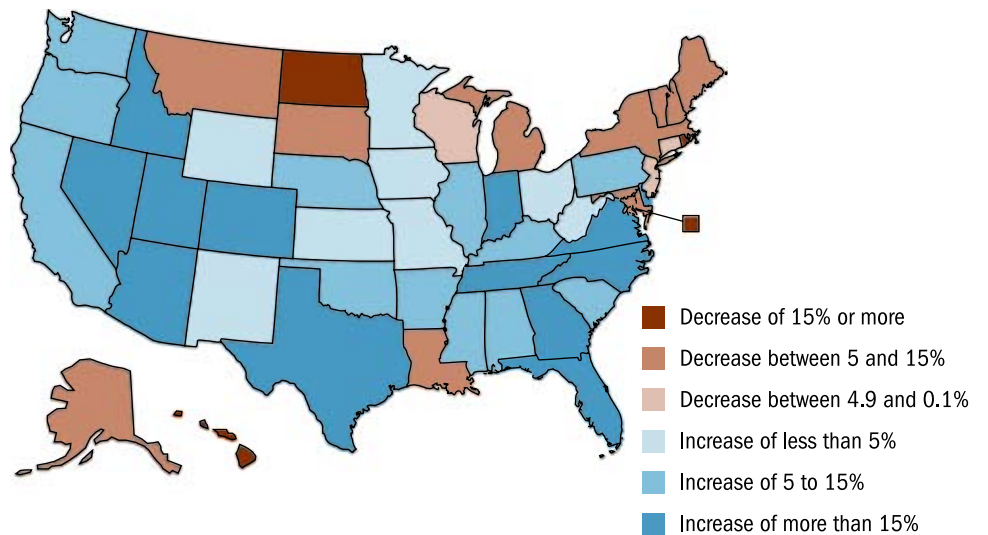
Source: Adapted from Census 2000

Only 49 percent of African-American students graduate from Wisconsin high schools on-time.

PROJECTIONS AND COMPARISONS

The combination of a stagnant population and increased poverty means that Wisconsin is expected to see a decrease in the number of high school graduates—just over one percent fewer graduates from 2005-2019 (Figure 6). Other Midwestern states like Minnesota and Ohio are projected to have small or no change in the number of high school graduates. However, Iowa (3.5%), Illinois (6.8%), Indiana (15.1%) expect to see growth in their number of graduates (see Appendix and Table 7). Wisconsin’s poor showing mainly reflects the stagnant population size, but may also reflect stagnation in high school graduation rates.

Figure 6. Projection of Percentage Changes in the Number of High School Graduates: 2005-2019



Note: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in Table A-2, Appendix A.

Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), “State Nonfiscal Survey of Public Elementary/Secondary Education,” 2006-07; and State Public High School Graduates Model, 1990-91 through 2005-06. (This figure was prepared March 2009.)

Wisconsin’s on-time high school graduation rate is much higher than the national average but that accomplishment conceals a significant shortcoming: one of the largest Black/White achievement gaps in the nation (Table 7).²⁶ Only 49 percent of African-American students graduate from Wisconsin high schools on-time.²⁷ (See Appendix Figure 6 for graduation trends over time.)



Table 7. On-Time High School Graduation Rates, Wisconsin, Minnesota, Illinois and the Nation: 2006

	Wisconsin	Minnesota	Illinois	Nation
African-American	49%	NA	51%	59%
Asian	78%	73%	87%	79%
Hispanic	54%	37%	57%	55%
Native American	55%	54%	30%	50%
White	86%	84%	83%	76%
Overall	82%	79%	74%	69%

Source: Alliance for Excellent Education State Cards <http://www.all4ed.org/>

Ultimately, the long-term demographic trends for Wisconsin present a challenge to policy makers and leaders of the state. The school-aged population is not growing at a rate at which it can replace the exiting baby boomers, but its citizens are growing more diverse and economically challenged. Fewer Wisconsin high school graduates will mean challenges in meeting workforce demands without significantly increasing college continuation rates.

Higher education in Wisconsin

Wisconsin is not keeping pace with helping students transition between high school and college. The college continuation rate for high school graduates (61%) places the state at twenty-eighth in the nation, down from seventh thirty years ago.

Wisconsin offers opportunities for higher education via three sectors. More than 80 percent of undergraduates enroll in the state's University of Wisconsin System (UWSA) and Wisconsin Technical College System (WTCS).²⁸ In addition, Wisconsin's network of 73 private colleges and universities educates more than 73,000 students each year.²⁹

Wisconsin is known for its historic commitment to public higher education. But in recent years it has not maintained public support for its institutions of higher education. Only eleven states in the nation have reduced their investment in higher education by more than half since 1980—Wisconsin and Minnesota are the only two Midwestern states among them. In 2010, the state spent just \$5.61 on higher education, per \$1,000 of personal income (the national average was \$6.18).³⁰

As a result, many of the state's colleges and universities struggle with a tension between maintaining access and preserving educational quality. The state also wrestles with finding an appropriate balance between supporting four-year and two-year postsecondary education opportunities for Wisconsin students.

TRENDS IN SIZE AND COMPOSITION OF THE COLLEGE-GOING POPULATION

As demonstrated earlier in this report, in order to meet the requirements of tomorrow's employers, Wisconsin needs to grow, graduate, and retain more students with college credentials. It faces many challenges in doing so (Table 8). (See Appendix Table 9 for a comparison of all states on preparation, participation, affordability, and completion.)

College enrollment has consistently expanded across the nation for decades, and this is also true in Wisconsin. For example, since 1998 enrollment in UWSA grew by approximately 10,000 Wisconsin residents.³¹ Enrollment in WTCS shifted during that period—overall headcount shrank while FTE enrollment grew (see Appendix Table 9).³² Enrollment in Wisconsin's private colleges and universities has increased as well. Today, at least 635,000 students are attending some form of postsecondary education in the state.³³

That said, in an age where college is becoming the norm for the middle-class, Wisconsin is not keeping pace with helping students transition between high school and college. The college continuation rate for high school graduates (61%) places the state at twenty-eighth in the nation, down from seventh thirty years ago.³⁴





Similar to the K-12 sector, Wisconsin’s colleges have also seen a change in the composition of their students. Minority enrollment in UWSA grew by over 32 percent in the last decade, and during that time enrollment of African-Americans in the private sector swelled by 45 percent.^{35, 36} Enrollment declines in WTCS were exclusively among non-Hispanic Whites, meaning that the proportion of minority students overall has increased slightly.³⁷

Table 8. Key Indicators of College Access and Success: Wisconsin, Minnesota, Illinois, and the Nation

	Wisconsin (Rank)	Minnesota (Rank)	Illinois (Rank)	Nation
On-time college going rate for high school graduates	61.2% (28th)	68.4% (10th)	60.7% (30th)	62%
Percent of adults ages 18-24 enrolled in college	38.0% (16th)	38.4% (17th)	33.2% (6th)	34%
1st to 2nd year college persistence: 4-year colleges	77.7% (14th)	78% (18th)	71.1% (7th)	76%
1st to 2nd year college persistence: 2-year colleges	52.6% (23rd)	53.5% (20th)	49.6% (36th)	53%
Three-year graduation rate for associate degree students	33.5% (12th)	31.6% (16th)	24.8% (30th)	28%
Six-year graduation rate for bachelor’s students	58.2% (18th)	59.6% (14th)	58.7% (15th)	56%
Percent of adults ages 25-34 with an AA or higher	39.1% (23rd)	46.4% (4th)	42.7% (17th)	38%
Percent of adults 65 and older with an AA or higher	19.2% (37th)	23.4% (24th)	20.7% (32nd)	24%

Source: The National Center for Higher Education Management Systems <http://www.higheredinfo.org>

COLLEGE ATTAINMENT

Like the rest of the nation, Wisconsin faces a significant challenge in translating college access into college success. Just 58 percent of first-time, full-time bachelor’s degree-seeking students complete that degree within six years (Table 8). While slightly better than the national average (56%), this level of (in)efficiency leaves much to be desired if we aim to increase degree production and grow a highly-educated citizenry. (See Appendix Tables 10 and 11 for a comparison of six-year graduation rates for UWSA and neighboring competitive institutions.)

Two-year college students seeking associate degrees fair better in Wisconsin compared to elsewhere in the country. One-third of first-time, full-time associate degree-seeking students finish that degree within three years—this is 18 percent better than the national rate (28%) (Table 8). Wisconsin can capitalize on this strong graduation rate—and grow it—to fill the gap between middle-skill jobs and job seekers noted above.

Wisconsin ranks twenty-third in the nation in the percent of adults ages 25-34 holding an associate degree or higher—in contrast, Minnesota is fourth and Illinois is seventeenth.

Overall degree attainment leaves much to be desired. At just under 40 percent, Wisconsin ranks twenty-third in the nation in the percent of adults ages 25-34 holding an associate degree or higher—in contrast, Minnesota is fourth (48%) and Illinois is seventeenth (42.7%).³⁸

Wisconsin’s success for its “average” student conceals significant racial/ethnic disparities in college success. In fact, only White Wisconsin students outperform the national averages in 6-year college completion—every other group lags behind (Table 9).

Similar to disparities in its high school graduation rates, the Black/White gap in 6-year college graduation rates in the state is 29 percentage points—18 points larger than the national gap. Hispanic students in Wisconsin—one of the state’s fastest growing groups—are 15 percentage points behind White students (Table 9).

Table 9. Six-Year Rates of BA Attainment in Wisconsin, Minnesota, Illinois, and the Nation: 2004, 2006*

	Wisconsin	Minnesota	Illinois	National
African-American	32%	38%	36%	41%
Asian	54%	52%	68%	66%
Hispanic	46%	50%	46%	48%
Native American	30%	32%	52%	39%
White	61%	60%	64%	59%
Overall	59%	57%	59%	57%

* Based on first-time, full-time freshmen, Fall 2000
 Source: Alliance for Excellent Education State Cards <http://www.all4ed.org/>



Challenges for the future

Growing a college-educated workforce in Wisconsin requires significantly improving the academic and financial readiness of its K-12 students and in particular, closing some notable achievement gaps.

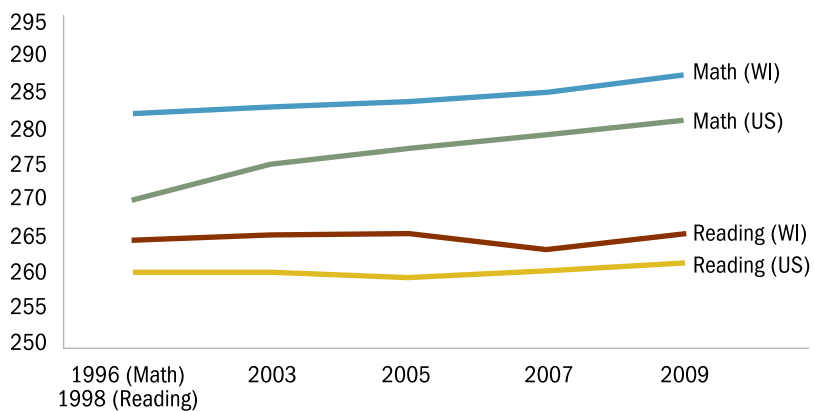
ACADEMIC PREPARATION: A LOOK AT TEST SCORES AND COURSE-TAKING

Standardized tests are one measure of academic preparation. Data on test scores from the National Assessment of Educational Progress (NAEP) and the ACT indicate that while Wisconsin's White students can compete nationally, other racial/ethnic groups are left far behind. State achievement tests show similar trends (see Appendix Figures 7-10 and Tables 12-14).

Minority students in Wisconsin perform worse than the national average in both reading and math.

For example, relative to the nation, the average Wisconsin student earns higher scores on the NAEP, and those scores are rising over time although gains are slowing in reading (Figure 7). White students in Wisconsin outperform all students from racial/ethnic minority backgrounds and, in general, minority students in Wisconsin perform worse than the national average in both reading and math. This is particularly true for African-American students who lag approximately 13 points behind their national counterparts.³⁹

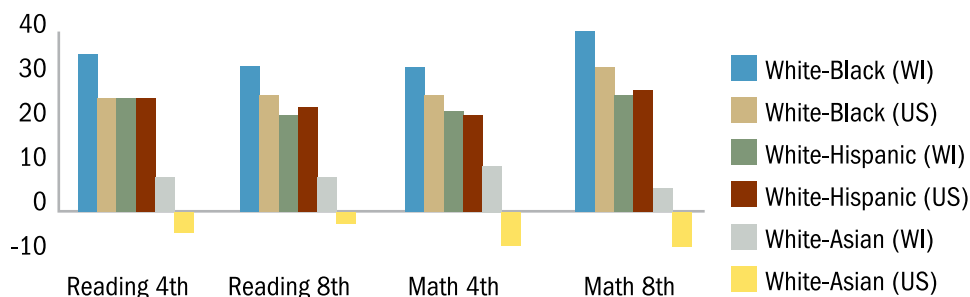
Figure 7. Summary of NAEP Grade 8 Mathematics and Reading Examinations Results, Wisconsin: Since 1996



Source: National Center for Education Statistics <http://nces.ed.gov/nationsreportcard/states/>

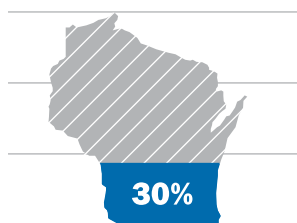
But racial disparities in test scores differ in Wisconsin as compared to the nation. On the reading tests in both fourth and eighth grade and the eighth grade mathematics test, the Black/White gap is smaller than the national average, but the Hispanic/White gap is larger (Figure 8). For example, the reading gap in grade four between White and African-American Wisconsin students is almost 40 points (it is less than 30 nationally) and there is a 20 point gap between White and Hispanic students (it is 26 points nationally).

Figure 8. Racial/Ethnic Gaps in NAEP Reading and Math Scale Score, Wisconsin and the Nation: 2009



Note: Black includes African-American, Hispanic includes Latino, Pacific Islander includes Native Hawaiian, and American Indian includes Alaska Native. Race categories exclude Hispanic origin unless specified.

Adapted from: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 (Reading), and 2009 (Mathematics) Assessments.



Only 30 percent of students who took the ACT in 2009 met all four of ACT's college readiness benchmarks. Even more troubling, only three percent of Wisconsin's African-American ACT test takers meet all four college readiness benchmarks.

Increasing college access in the state also requires that more students take and perform well on the ACT college entrance exam. The ACT consists of four sections: English, Mathematics, Reading, and Science. The following discussion uses results from the two largest sections, English and Mathematics, to show the performance of Wisconsin student groups and the gaps between them. Scores for each section range from 0 to 36, and composite scores below 19 on the ACT indicate a student may not be ready for college.⁴⁰

Fully 67 percent of Wisconsin graduates took the ACT in 2009 with an average composite score of 22.3 compared to Minnesota's average score of 22.7 where 68 percent of students completed the exam.⁴¹ But as with the NAEP, test-takers from racial/ethnic minority groups have lower scores on the ACT compared to their White counterparts. African-Americans fared the worst by scoring six points below the average White student. Hispanic (3.2 points lower) and Asian (2.6 points lower) students also scored below White students.

The ACT also includes a set of college readiness benchmarks. A subject area benchmark is the ACT score a student must achieve to have a good chance of earning a C in a college class. Meeting all four benchmarks is a strong indicator of college readiness—but only 30 percent of Wisconsin students achieve that. Even more troubling, only three percent of Wisconsin's African-American ACT test takers meet all four college readiness benchmarks. The Black/White gap in that measure of readiness is fully 25 percent larger in Wisconsin as compared to the national average (Table 10).

Table 10. Wisconsin ACT Results: 2009

Composite Scores by Racial and Ethnic Groups, School Program, and College Readiness Benchmarks										
Wisconsin	ACT Test-Takers	Composite Score	Percentage Taking Core	Composite Scores		Percentage Meeting ACT College Readiness Benchmark Scores				
				Core or More	Less than Core	English (18)	Mathematics (22)	Reading (21)	Science (24)	All Four Benchmarks
African-American	2,548	16.8	57	17.4	16.6	32	10	20	6	3
American Indian	350	20.7	62	21.7	19.4	67	38	53	23	17
Asian	1,681	20.3	65	21.2	18.8	54	40	39	23	19
Hispanic	1,412	19.7	66	20.4	18.9	55	31	43	18	14
White	37,801	22.9	75	23.4	21.4	82	57	67	41	33
Other/No Response	2,866	22.6	68	23.5	21.4	–	–	–	–	–
All Students	46,658	22.3	73	23.0	20.9	77	53	62	37	30
Nation	ACT Test-Takers	Composite Score	Percentage Taking Core	Core or More	Less than Core	English (18)	Mathematics (22)	Reading (21)	Science (24)	All Four Benchmarks
African-American	196,149	16.9	64	17.6	15.9	35	12	20	6	4
American Indian	15,773	18.9	59	20.1	17.4	50	24	39	16	11
Asian	59,093	23.2	80	23.7	21.4	76	65	61	42	36
Hispanic	133,569	18.7	67	19.6	17.3	48	27	35	13	10
White	941,206	22.2	73	23.0	20.1	77	50	62	35	28
Other/No Response	134,679	20.9	63	22.2	19.0	–	–	–	–	–
All Students	1,480,469	21.1	70	22.0	19.1	67	42	53	28	23

NOTES: An ACT core curriculum is four years of English and three or more years each of mathematics (starting with Algebra 1), science, and social studies. In 2009, about 2 percent of Wisconsin students did not identify their intended high school curriculum, and 3 percent of students nationally did not provide their high school course-taking plans during ACT registration. A benchmark score is the minimum score needed on an ACT subject-area test to indicate a 75 percent chance of obtaining a C or higher grade in a corresponding college-level course. The science benchmark is for college-level biology.

Source: Wisconsin Department of Public Instruction http://dpi.wi.gov/eis/pdf/dpinr2009_14.pdf

FINANCIAL PREPARATION: WISCONSIN STUDENTS' ABILITY TO PAY

Even academically-prepared students must be able to afford college if they are to attend. Evidence indicates that financial constraints are affecting Wisconsin families, compromising the enrollment of even the most talented students. For example, in the University of Wisconsin System Administration (UWSA), low-income students with high test scores enroll at lower rates than high-income students with less impressive test scores (Table 11). This disparity threatens Wisconsin's economy, since research indicates that the individuals who are least likely to attend college accrue the greatest economic and social benefits from attending.⁴²



Table 11. Enrollment Rate of Wisconsin ACT Test Takers in the UWSA within Income Quintile and ACT Score Range: 2004

Wisconsin Family Income Quintile	ACT Scores				
	Under 20	20 to 23	24 to 27	28 to 36	All Scores
Lowest	28%	42%	52%	43%	37%
Low-Medium	31%	46%	52%	52%	43%
Medium	35%	53%	56%	53%	49%
Medium-High	38%	56%	57%	52%	52%
Highest	39%	54%	52%	45%	49%
All Quintiles	33%	51%	54%	50%	46%

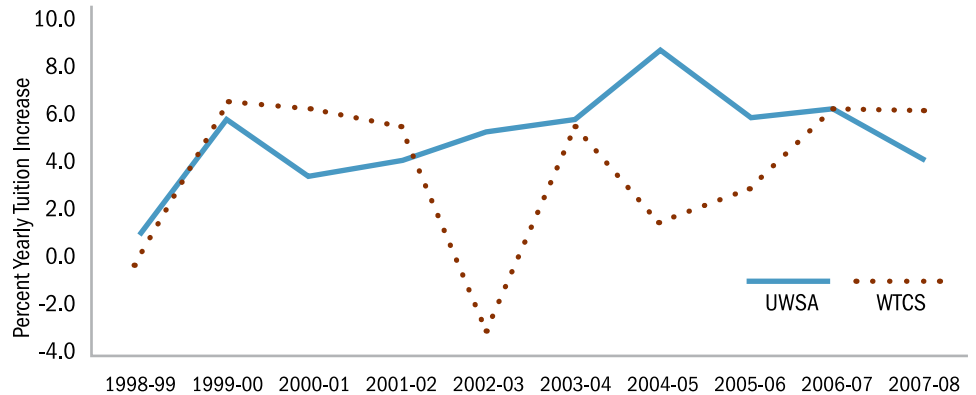
Sources: Adapted from ACT, Inc., UWSA, and US Census Bureau.

Many factors contribute to the challenge of affording a college education in Wisconsin, including increasing costs, decreasing resources for financial aid relative to those costs, and inadequate rates of take-up of existing aid resources.

As of 2010, the average cost of attending a UWSA institution is over \$15,000 and the average cost of attending a Wisconsin Technical College System (WTCS) college is almost \$12,000.⁴³ As Figure 9 indicates, tuition tends to increase annually in both systems. Annual increases have tended to grow larger over time. Since 2008, the average yearly tuition increase in UWSA was 5.2 percent (\$626) and the largest average increase was nine percent (over \$1,000). Costs have risen more slowly in WTCS, which even saw a tuition decrease in the last decade. Increases in WTCS have averaged 3.6 percent (\$349) since 2008.



Figure 9. Annual Tuition Increases at Wisconsin's Public Colleges and Universities: 1998-2008

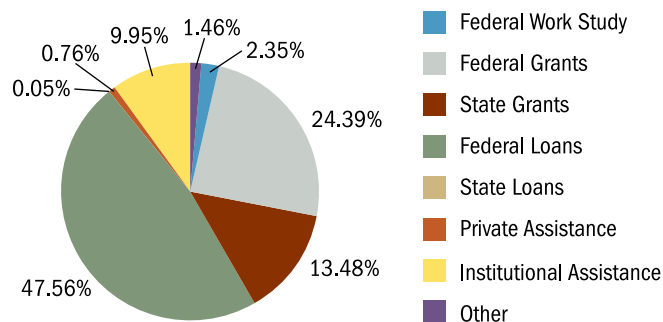


Source: Higher Educational Aids Board <http://heab.state.wi.us/docs/board/0809/rep0919.pdf>

During the later part of the 1970's, Wisconsin appropriated around 13 or 14 percent of state revenues for higher education and it ranked about tenth on average for state funding. Currently it is ranked thirty-first at under six percent.

One reason costs have risen dramatically is a reduction of investment by the state. Even though total appropriations for higher education have increased over the last 40 years, the “real” dollars going towards state-funded institutions decreased nine percent per Full-Time Student (FTE) between 2003 and 2008.⁴⁴ During the later part of the 1970's, Wisconsin appropriated around 13 or 14 percent of state revenues for higher education and it ranked about tenth on average for state funding. By the end of the 1980's the share of revenue going to higher education was about ten percent, by the end of the 1990's around eight percent, and currently it is under six percent. Not all states are decreasing their investment as rapidly; while in the mid-1970's Wisconsin's ranking averaged about tenth, it is currently ranked thirty-first.⁴⁵

Figure 10. Total Financial Aid by Type, Wisconsin: 2007-08



Source: Higher Educational Aids Board <http://heab.state.wi.us/docs/board/0809/rep0919.pdf>



Of course, many forms of federal and state financial aid are available to Wisconsin college students (Figure 10 and Table 12). These include grants that do not have to be repaid, loans which do have to be repaid, and work-study. Figure 10 shows that the largest share of total aid—almost half—is from federal loans, then federal grants (~24%) followed by state grants (~13%). It is notable that despite different costs of attendance, students in both UWSA and WTCS finance their education in similar ways. Just over half (55%) of their aid comes in the form of federal loans (Perkins, Stafford, and PLUS)—families in UWSA borrow approximately \$12,000 per year and those in WTCS borrow about \$9,000 per year. Grant aid comprises 38 percent of aid in UWSA and 36 percent of aid in WTCS, with the remaining aid coming from work-study.⁴⁶

Table 12. Forms of Available Federal and State Financial Aid

TYPE*	Restrictions
Federal	
Pell Grant	Means-tested financial need, FAFSA completion.
Supplemental Educational Opportunity Grant	Means-tested “exceptional” financial need, FAFSA completion.
Academic Competitiveness Grant	Pell Grant recipient, FAFSA completion, minimum half-time enrollment, in the 1st or 2nd year of postsecondary enrollment, completion of a “rigorous” secondary curriculum, 3.0 GPA if in the 2nd year of enrollment.
Federal Work Study	Means-tested financial need, FAFSA completion.
Parent Loan for Undergrad Students	Parental credit history that is not “adverse.”
Perkins Loan	Means-tested “exceptional” financial need, FAFSA completion.
Stafford Loan	Minimum half-time enrollment, FAFSA completion, means-tested financial need (subsidized only).
Wisconsin	
Wisconsin Higher Education Grant	Minimum half-time enrollment, demonstrated financial need.
Talent Incentive Program Grant	Minimum half-time enrollment, consecutive enrollment, demonstrated financial need.
Academic Excellence Scholarship	Full-time enrollment, enrollment immediately after high school graduation, GPA valedictorian of high school.

*minimum 500 recipients

Source: State of Wisconsin Higher Education Aids Board, studentaid.ed.gov, U.S. Department of Education

When students are given help on completing the FAFSA, they are more likely to receive aid and enroll in college.

Just over half of all Wisconsin undergraduate students file the FAFSA. Wisconsin’s undergraduate rate is slightly better than the national average, but other neighboring states perform better.

But there are several shortcomings of the current financial aid system. First, accessing most forms of aid usually requires that families complete the Free Application for Federal Student Aid (FAFSA). That form is long and complicated, often requiring more work than many tax forms.⁴⁷ There is new evidence that when students are given help on completing the FAFSA, they are more likely to receive aid and enroll in college.⁴⁸

Just over half of all Wisconsin undergraduate students file the FAFSA and just over a third (26,012) of Wisconsin high school seniors complete the FAFSA.⁴⁹ Wisconsin’s undergraduate rate is slightly better than the national average, but other neighboring states perform better—for example, 56 percent of undergraduates apply for aid in Minnesota, and likely as a result rates of Pell grant receipt are slightly higher (3 percentage points) in that state. While we do not know how many Wisconsin students would have been eligible to receive aid if they did complete the form, national estimates indicate that a substantial amount of existing resources are being left on the table.⁵⁰ Across the United States, only 52 percent of all students at public colleges completed the FAFSA. Of the 48 percent of students who did not complete the FAFSA, 35 percent would have qualified for a Pell grant.⁵¹

Table 13. Undergraduate Aid and FAFSA Completion: 2007-2008

	Percent of Undergraduate Aid Applicants	Average Pell Grant	Pell as Percent of Tuition	Percent of Students Receiving Pell Grants
Wisconsin - Total	52%	\$2,479	32%	24%
Nation - Total	50%	\$2,567	34%	29%
Wisconsin - Public, 2-year	38%	\$2,278	69%	29%
Nation - Public, 2-year	34%	\$2,350	118%	30%
Wisconsin - Public, 4-year	60%	\$2,656	44%	20%
Nation - Public, 4-year	58%	\$2,813	48%	29%

Source: <http://www.college-insight.org>. Most college-level data are taken directly from U.S. Department of Education sources and the Common Data Set (CDS).

A second concern is that in order to qualify for federal loans a student must be enrolled at least half-time in college. This is a barrier for working and parenting students, and others who face significant time constraints.^{52, 53}

Another concern is the declining purchasing power of the federal Pell Grant—the primary source of federal grant aid. Originally intended to fully cover the costs of attendance for economically disadvantaged students, in 1975, the Pell Grant met



In 1975, the Pell Grant met 84 percent of attendance costs. Today it covers just over one-third, on average.

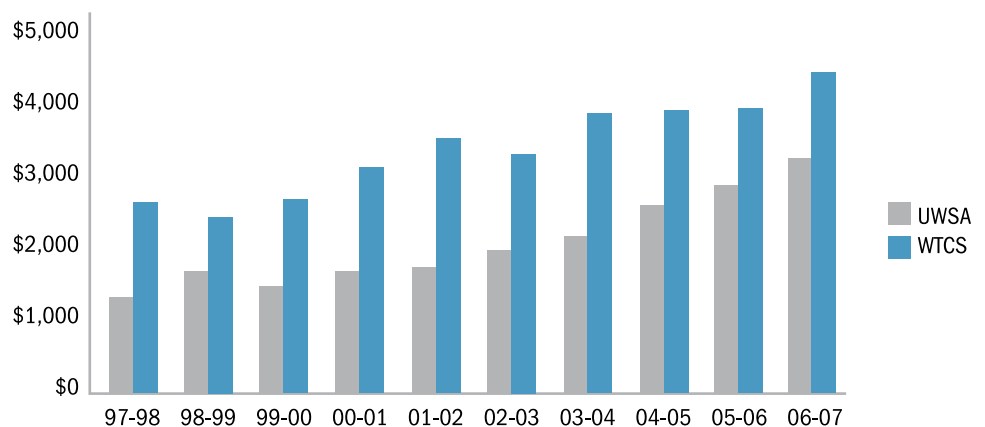
84 percent of those costs. Today it covers just over one-third, on average.⁵⁴ In Wisconsin, the Pell Grant buys even less, covering under one-third (Table 13). As the value of the Pell grant declines so does the prevalence of grant recipients at Wisconsin's flagship university, UW-Madison.⁵⁵ Given the representation of economically disadvantaged students in the state, researchers estimate that approximately 15 percent of students on Madison's campus should be Pell grant recipients. The number is actually only 12 percent—almost 750 less recipients than expected.⁵⁶

Overall, Wisconsin invests less than other states in need-based grant aid. For every dollar in federal Pell Grant aid, the state spent just 62 cents in 2008. While this was an improvement over prior years, it still put Wisconsin well below average—the top states in previous years spent 89 cents.⁵⁷ The likely result is that more Wisconsin students will graduate with debt. Almost two-thirds (64%) of Wisconsin students have student loan debt, higher than the national average.⁵⁸ Compared with Minnesota, Wisconsin has fewer graduates with debt but those students carry a higher average debt load (see Appendix Table 15).

Almost two-thirds of Wisconsin students have student loan debt, higher than the national average. Compared with Minnesota, Wisconsin has fewer graduates with debt but those students carry a higher average debt load.

Taken together, these problems leave many Wisconsin college students with substantial amounts of unmet financial need.⁵⁹ Unmet need is growing, placing an ever larger burden on students (Figure 11). Primarily due to the smaller amount of available institutional aid, there is greater unmet need in WTCS (\$4,602 in 2006-07) than in UWSA (\$3,339 in 2006-07), not just in proportion, but in real dollars.⁶⁰

Figure 11. Average Unmet Need* Per Qualified Student: 1997-2007



Source: State of Wisconsin Higher Education Aids Board

*Calculated by subtracting average Expected Family Contribution (EFC) and average Need-Based Assistance from average Total Cost of Education.

To benchmark how well Wisconsin meets the financial need of its students to that of neighboring states, we examine one major indicator—the percent of tuition covered by state grants. As Table 14 shows, compared to its peers Wisconsin is a low tuition state, but it is also a low financial aid state. In contrast, Minnesota and Illinois charge substantial tuition, but provide more state dollars to offset those higher prices. Research is inconclusive as to which model (e.g., high tuition/high aid versus low tuition/low aid) most effectively increases college attainment among low-income students.

Table 14: Tuition at Midwestern Flagship Universities and Estimated Need-Based State Undergraduate Grant

	Resident Undergraduate Tuition-Fees	Estimated Grant Dollars per FTE*	Grants as Percent of Tuition
Indiana	\$7,460	\$769	10.3%
Illinois	\$9,882	\$854	8.6%
Minnesota	\$9,180	\$715	7.8%
Ohio	\$8,667	\$577	6.7%
Wisconsin	\$6,726	\$402	6.0%
Iowa	\$5,935	\$339	5.7%
Michigan	\$10,341	\$501	4.8%

*Grant dollars per FTE data from National Association of State Student Grant and Aid Programs. Source: Wisconsin Legislative Fiscal Bureau Paper 38⁶¹



Conclusion

Wisconsin is standing at a crossroads. The state's economy has suffered severely during the current recession, but more troubling are the signs of steady, long-term decline. Change is overdue.

Increasing the educational attainment of Wisconsin's population can help set the state on a more positive path. Research shows that the majority of new jobs in the state will require some form of postsecondary education, yet the fastest growing groups in the state are the least likely to go on to college. Fixing this problem will require new investments and creative solutions to improve academic preparation and financial support.

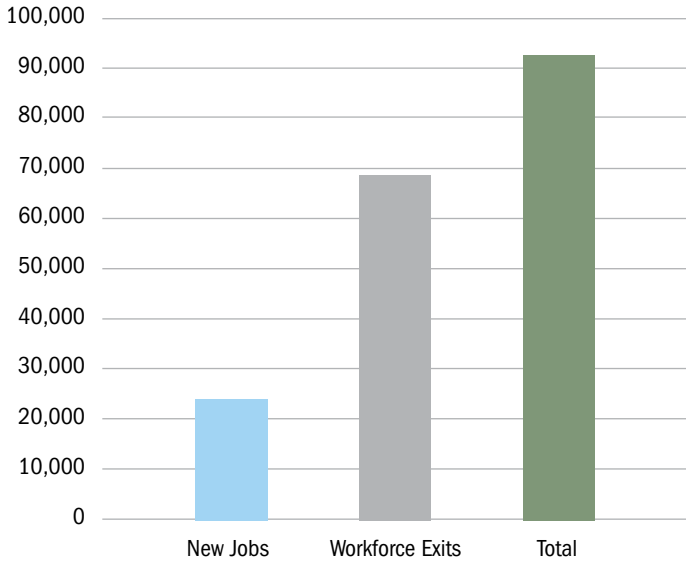
The power of higher education is clear, and the cost of doing nothing is substantial. Wisconsin's challenge is to give all children and adults the encouragement and skills they need to succeed. Encouraging all students to take and excel in the courses needed to prepare for college and helping families secure the financial resources needed to foot the bills are all key steps. These are formidable tasks for Wisconsin, but ones that the state can and should take on to ensure that we can build a strong economy and quality of life.

The power of higher education is clear, and the cost of doing nothing is substantial.



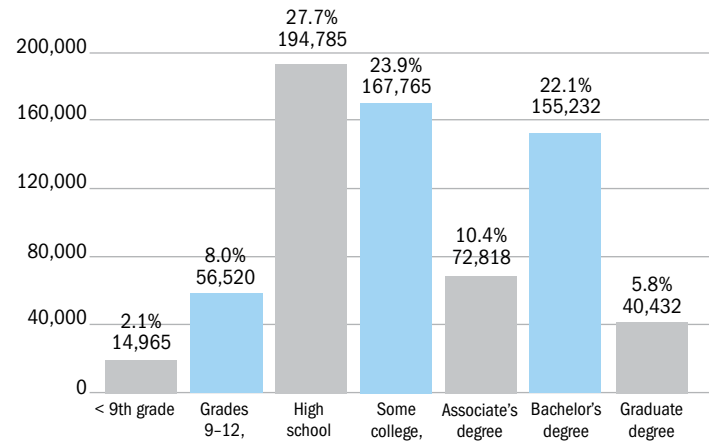
Appendix

Figure 1: Average Annual Job Openings for Wisconsin: 2006-2016



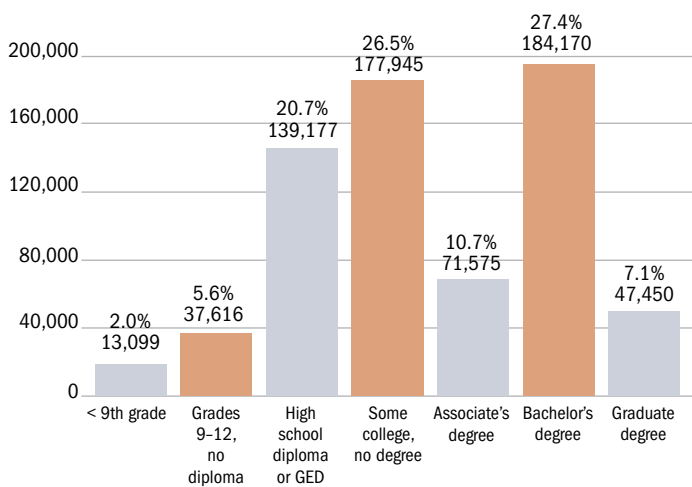
Source: U.S. Census Bureau, Wisconsin Department of Workforce Development

Figure 2: Education Attainment in Wisconsin from US Census: 2000



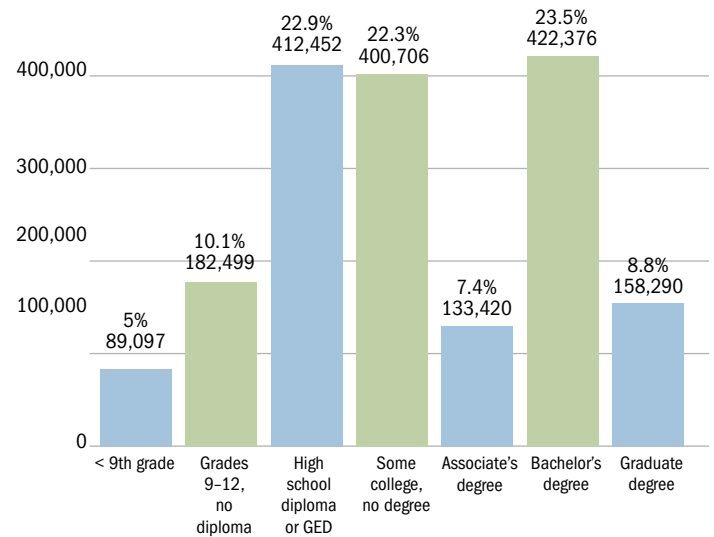
Source: http://www.luminafoundation.org/research/state_data/wisconsin.html

Figure 3: Education Attainment in Minnesota from US Census: 2000



Source: http://www.luminafoundation.org/research/state_data/minnesota.html

Figure 4: Education Attainment in Illinois from US Census: 2000



Source: http://www.luminafoundation.org/research/state_data/illinois.html

Table 1. Average Salaries in Wisconsin and Minnesota for Selected Occupations

Occupation	High School Average Income	Bachelor's Average Income	Percent BA Edge	High School Average Income	Bachelor's Average Income	Percent BA Edge
	Wisconsin			Minnesota		
Financial Managers	\$46,240	\$89,097	48%	\$57,410	\$98,389	42%
Food Service Managers	\$38,718	\$44,008	12%	\$36,349	\$57,425	37%
General and Operations Managers	\$59,772	\$94,402	37%	\$67,943	\$89,724	24%
Human Resources Managers	\$44,374	\$81,513	46%	\$57,688	\$87,053	34%
Human Resources Training and Labor Relations	\$41,442	\$57,779	28%	\$38,883	\$53,792	28%
Insurance Sales Agents	\$45,086	\$97,076	54%	\$58,025	\$81,634	29%
Marketing and Sales Managers	\$52,120	\$93,993	45%	\$63,876	\$105,129	39%
Office and Administrative Support	\$29,087	\$37,708	23%	\$30,757	\$43,877	30%
Police Officers	\$51,793	\$54,468	5%	\$52,266	\$53,406	2%
Real Estate Brokers and Sales Agents	\$53,916	\$89,593	40%	\$56,612	\$76,248	26%
Retail Salespersons	\$28,241	\$44,027	36%	\$29,806	\$48,195	38%
Sales Representatives, Services	\$58,710	\$78,273	25%	\$48,158	\$88,949	46%
Sales Representatives, Wholesale/Manufacturing	\$45,586	\$82,983	45%	\$65,930	\$83,446	21%

Source: 2005–07 Period Estimate, American Community Survey, U.S. Census Bureau

Table 2. The Impact of a Five Percent Increase in Male High School Graduation Rates on Crime Reduction and Earnings

State	Annual Crime-Related Savings	Additional Annual Earnings	Total Benefit to State Economy
Alabama	\$82,114,178	\$42,695,448	\$124,809,626
Alaska	\$10,385,910	\$8,229,446	\$18,615,356
Arizona	\$130,548,518	\$53,146,250	\$183,694,768
Arkansas	\$52,527,329	\$24,825,605	\$77,352,934
California	\$752,933,848	\$352,182,007	\$1,105,115,855
Colorado	\$49,051,830	\$42,954,144	\$92,005,974
Connecticut	\$31,624,059	\$31,692,936	\$63,316,995
Delaware	\$9,923,632	\$7,271,214	\$17,194,846
District of Columbia	\$66,503,310	\$3,237,663	\$69,740,973
Florida	\$332,386,028	\$174,243,833	\$506,629,861
Georgia	\$185,633,644	\$90,744,324	\$276,377,968
Hawaii	\$6,835,886	\$11,203,133	\$18,039,020
Idaho	\$7,374,662	\$13,817,814	\$21,192,476
Illinois	\$263,078,679	\$115,756,032	\$378,834,711
Indiana	\$95,731,795	\$56,133,136	\$151,864,932
Iowa	\$17,544,077	\$26,798,824	\$44,342,901
Kansas	\$36,327,968	\$26,397,581	\$62,725,549
Kentucky	\$50,190,235	\$37,221,909	\$87,412,144
Louisiana	\$164,467,403	\$39,778,515	\$204,245,917
Maine	\$3,046,026	\$11,679,610	\$14,725,636
Maryland	\$160,557,762	\$50,869,458	\$211,427,220
Massachusetts	\$59,187,389	\$55,535,231	\$114,722,620
Michigan	\$175,304,759	\$105,034,655	\$280,339,414
Minnesota	\$30,608,540	\$47,171,157	\$77,779,698
Mississippi	\$66,976,174	\$26,274,832	\$93,251,006
Missouri	\$95,613,931	\$51,781,495	\$147,395,426
Montana	\$10,637,756	\$8,967,258	\$19,605,015
Nebraska	\$16,519,921	\$16,469,451	\$32,989,371
Nevada	\$55,973,838	\$22,464,341	\$78,438,180
New Hampshire	\$3,397,405	\$12,032,017	\$15,429,423
New Jersey	\$120,008,948	\$69,283,091	\$189,292,039
New Mexico	\$37,905,377	\$19,840,422	\$57,745,799
New York	\$286,896,473	\$170,426,743	\$457,323,216
North Carolina	\$151,947,826	\$80,880,868	\$232,828,694
North Dakota	\$2,480,026	\$6,408,013	\$8,888,039
Ohio	\$126,369,800	\$106,527,438	\$232,897,238
Oklahoma	\$63,248,994	\$33,164,601	\$96,413,595
Oregon	\$21,053,644	\$30,029,888	\$51,083,532
Pennsylvania	\$182,071,834	\$106,127,515	\$288,199,349
Rhode Island	\$5,946,578	\$9,485,971	\$15,432,549
South Carolina	\$105,184,170	\$45,366,883	\$150,551,053
South Dakota	\$1,636,287	\$7,048,154	\$8,684,441
Tennessee	\$132,841,628	\$50,196,980	\$183,038,608
Texas	\$428,340,492	\$263,016,258	\$691,356,750
Utah	\$15,180,026	\$24,155,106	\$39,335,132
Vermont	\$3,518,159	\$5,783,710	\$9,301,869
Virginia	\$109,091,336	\$70,200,407	\$179,291,743
Washington	\$50,235,943	\$60,499,296	\$110,735,239
West Virginia	\$19,811,155	\$15,995,614	\$35,806,769
Wisconsin	\$47,775,714	\$53,395,707	\$101,171,421
Wyoming	\$4,467,005	\$5,081,534	\$9,548,539
United States	\$4,939,017,909	\$2,799,523,519	\$7,738,541,428

Source: Saving Futures, Saving Dollars: The Impact of Education on Crime Reduction and Earnings (Alliance for Excellent Education, 2006) <http://www.all4ed.org/files/SavingFutures.pdf>.

Table 3. Enrollment Comparisons of Elementary and Secondary Students

Projected percentage increases in public elementary and secondary school enrollment, by state: 2006-2018

State	% Change	State	% Change
Arizona	42.2	Alaska	8.5
Nevada	40.2	Oklahoma	7.1
Texas	32.1	Nebraska	7.0
Utah	29.7	South Carolina	5.8
Idaho	26.1	Minnesota	5.5
Georgia	25.2	Missouri	4.7
Florida	24.0	Kansas	3.8
North Carolina	22.9	Kentucky	3.6
Colorado	19.3	Montana	3.3
Tennessee	12.9	Indiana	3.2
Delaware	11.7	District of Columbia	3.1
Virginia	11.5	Maryland	2.4
Oregon	11.0	Illinois	2.3
Wyoming	10.6	Wisconsin	2.2
New Mexico	10.5	Alabama	1.4
Arkansas	9.1	Iowa	1.3
Washington	8.7	New Hampshire	1.1
California	8.6		

Source: U.S. Dept. of Education, NCES, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model

Table 4. Total School Enrollment – American Community Survey: 2005-2007

Nursery school, Preschool	74,879
Kindergarten	79,604
Elementary School (grades 1-8)	578,005
High School (grades 9-12)	324,531
Population three years and over enrolled in school	1,440,653
K-12 Population	982,140

Source: U.S. Census Bureau, 2005–2007 American Community Survey: http://factfinder.census.gov/servlet/ADPTTable?_bm=y&-geo_id=04000US55&-qr_name=ACS_2007_3YR_G00_DP3YR2&-ds_name=&-_lang=en&-redoLog=false

Figure 5. Wisconsin Cooperative Educational Service Agency (CESA) Districts

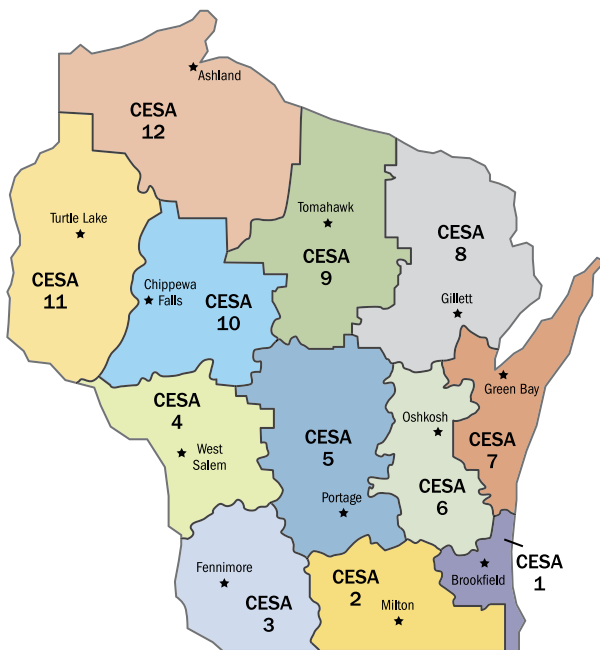


Table 5. Ethnicity Trends by Region, Wisconsin: 2009

	% American Indian	% Asian	% Black	% Hispanic	% White
CESA 1	1%	4%	26%	14%	55%
CESA 2	0%*	3%	8%	10%	79%
CESA 3	0%**	1%	1%	2%	96%
CESA 4	2%	4%	2%	3%	88%
CESA 5	1%	2%	1%	4%	91%
CESA 6	1%	4%	2%	5%	89%
CESA 7	3%	5%	3%	8%	81%
CESA 8	10%	1%	1%	2%	87%
CESA 9	3%	8%	1%	2%	86%
CESA 10	1%	3%	2%	2%	92%
CESA 11	2%	2%	1%	2%	93%
CESA 12	10%	1%	2%	1%	86%

*.005
**.004

Source: Based on 2009 data compiled from WINSS (Wisconsin's Information Network for Successful Schools): <http://data.dpi.state.wi.us/data/selschool.asp>

Table 6. Free or Reduced Meal Eligibility by Region, Wisconsin: 2009

	Number	Percent
CESA 1*	108,048	41%
CESA 2**	40,903	28%
CESA 3	6,805	34%
CESA 4	12,559	35%
CESA 5	17,716	32%
CESA 6	26,379	26%
CESA 7**	25,142	29%
CESA 8	9,025	40%
CESA 9	11,799	34%
CESA 10	13,427	37%
CESA 11	13,892	29%
CESA 12	7,004	43%
Total	292,699	34%

*Missing eligibility data for three schools

**Missing eligibility data for one school

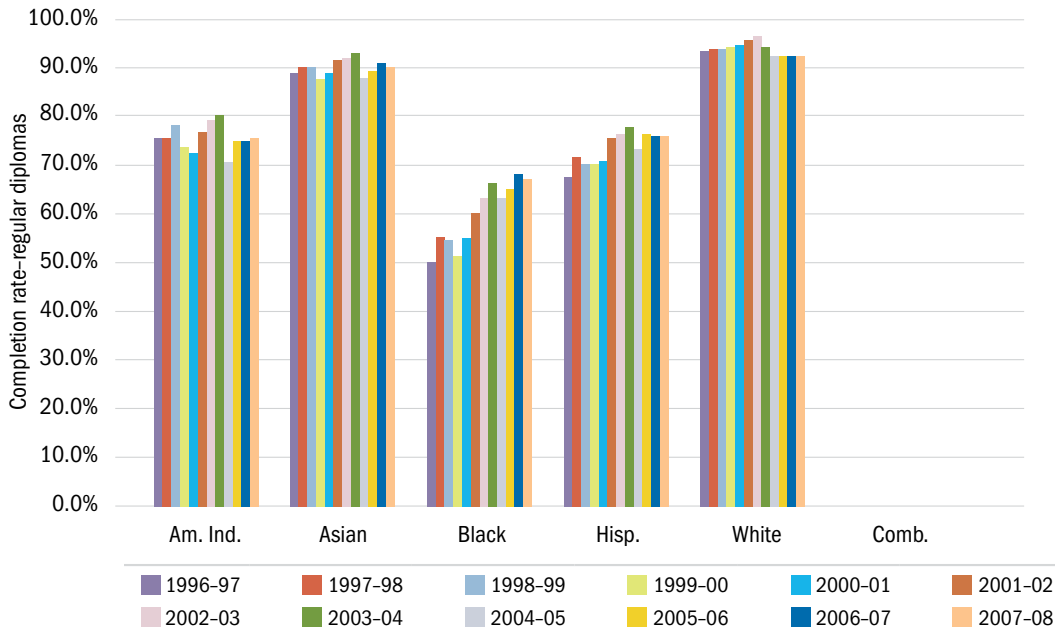
Source: Based on 2009 data compiled from WINSS (Wisconsin's Information Network for Successful Schools): <http://data.dpi.state.wi.us/data/selschool.asp>

Table 7. Projection of Percentage Changes in the Number of High School Graduates: 2005-2019

State	% Change	State	% Change
Nevada	59.1	Rhode Island	-21.0
Utah	53.0	North Dakota	-20.4
Georgia	41.3	District of Columbia	-19.4
Texas	40.0	Hawaii	-18.6
Idaho	33.6	Vermont	-15.9
North Carolina	33.2	Maine	-12.7
Arizona	32.5	New York	-11.5
Colorado	29.8	South Dakota	-11.2
Florida	22.7	Louisiana	-8.6
Tennessee	21.9	Montana	-8.6
Virginia	17.5	Michigan	-8.1
Delaware	17.1	New Hampshire	-8.1
Indiana	15.1	Maryland	-6.9
Oregon	15.0	Massachusetts	-6.2
Kentucky	13.2	Alaska	-5.5
Arkansas	11.0	Connecticut	-3.9
California	11.0	Wisconsin	-1.2
Alabama	10.8	New Jersey	-0.9
Pennsylvania	10.4		
Mississippi	7.6		
South Carolina	6.9	# Rounds to zero.	
Illinois	6.8		
Nebraska	6.2		
Oklahoma	6.2		
Washington	5.9		
New Mexico	4.6		
Missouri	4.6		
Wyoming	4.2		
Iowa	3.5		
West Virginia	2.6		
Kansas	0.9		
Ohio	0.3		
Minnesota	#		

Source: U.S. Dept. of Education, NCES, Common Core of Data surveys and State Public High School Graduates Model, reference table 26.

Figure 6. Wisconsin High School Graduation Rates by Race/Ethnicity: 1996-2008



Note: Total Expected to Complete High School is a count of students who were expected to complete high school in the year indicated whether or not the students actually did. This total includes actual high school completers, cohort dropouts, and noncompleters who reached the maximum age associated with the constitutional right to a free public education.

Source: Wisconsin Department of Public Instruction Website <http://dpi.wi.gov/lbstat/data.html>

Table 8. Measuring UP State Grades: 2008

State	Preparation	Participation	Affordability	Completion
Alabama	D+	D+	F	C-
Alaska	C+	F	F	F
Arizona	D	A	F	B
Arkansas	C-	D+	F	C-
California	C+	C	C-	B-
Colorado	A-	C+	F	B-
Connecticut	A	C-	F	B-
Delaware	C+	C-	F	B
Florida	C	D	F	B+
Georgia	C+	D-	F	B-
Hawaii	C-	D	F	C
Idaho	C	D	F	C
Illinois	B	C	F	B+
Indiana	C	C	F	B-
Iowa	B	A	F	A
Kansas	B	B-	F	B
Kentucky	C	C	F	B
Louisiana	D-	F	F	C+
Maine	B-	C-	F	C+
Maryland	A-	C	F	B-
Massachusetts	A	B-	F	A
Michigan	C	C	F	C+
Minnesota	B	B	F	A
Mississippi	D	D+	F	C
Missouri	C+	C	F	B
Montana	B-	D+	F	C-
Nebraska	B-	B	F	B+
Nevada	C	F	F	F
New Hampshire	B	C-	F	A-
New Jersey	A-	C	F	C+
New Mexico	D-	B-	F	D+
New York	B	D+	F	B+
North Carolina	B-	D+	F	B-
North Dakota	B-	B+	F	A
Ohio	B-	C-	F	B-
Oklahoma	C-	C-	F	C
Oregon	C+	D	F	C+
Pennsylvania	B-	C-	F	A
Rhode Island	C+	C+	F	A
South Carolina	C+	D-	F	C+
South Dakota	B	B	F	B
Tennessee	C	D	F	C
Texas	B	D-	F	C-
Utah	B	B-	F	B+
Vermont	A-	C	F	A-
Virginia	B+	C	F	B
Washington	C+	D	F	A-
West Virginia	C	C	F	C
Wisconsin	B	C+	F	A-
Wyoming	C	C	F	A

Source: National Center for Public Policy and Higher Education, Measuring up 2008:
<http://measuringup2008.highereducation.org/print/NCPPEMUNationalRpt.pdf>

Table 9. Statewide FTE Enrollment at WTCS by FTE

	FTEs	% Change
1997-98	56,488	—
1998-99	57,667	+2.1%
1999-00	57,983	+0.5%
2000-01	59,719	+3.0%
2001-02	63,782	+6.8%
2002-03	66,868	+4.8%
2003-04	68,728	+2.8%
2004-05	68,414	-0.5%
2005-06	68,267	-0.2%
2006-07	68,358	+0.1%
2007-08	69,631	+1.9%
2008-09	71,900	+3.2%

Source: http://www.legis.state.wi.us/lfb/Informationalpapers/35_wtcs.pdf and [http://www.legis.state.wi.us/lfb/2009-11Budget/Budget Papers/840.pdf](http://www.legis.state.wi.us/lfb/2009-11Budget/Budget%20Papers/840.pdf)

Table 10. UWSA 6-year Graduation Rates by Race (Four-Year Averages* 2004, 2005, 2006, 2007)

Institution	Overall Grad Rate	Racial/Ethnic Minority Total	African-American Total	Latino Total	Native American Total	Asian Total	White Total
UW-Eau Claire	64%	50%	52%	59%	37%	54%	65%
UW-Green Bay	53%	30%	NA	NA	18%	37%	54%
UW-La Crosse	62%	44%	38%	52%	32%	45%	63%
UW-Madison	72%	54%	56%	56%	43%	69%	74%
UW-Milwaukee	44%	26%	20%	25%	26%	36%	46%
UW-Oshkosh	49%	35%	29%	38%	NA	34%	49%
UW-Parkside	35%	24%	20%	30%	NA	42%	37%
UW-Platteville	51%	19%	18%	19%	NA	50%	52%
UW-River Falls	55%	33%	29%	31%	NA	46%	56%
UW-Stevens Point	55%	33%	35%	23%	24%	49%	56%
UW-Stout	46%	25%	13%	NA	NA	30%	48%
UW-Superior	36%	NA	NA	NA	NA	NA	36%
UW-Whitewater	47%	32%	27%	42%	NA	37%	48%

* Due to missing data from the source for one or more years, four-year averages were not available for all institutions.

NA: data missing for at least three of four years.

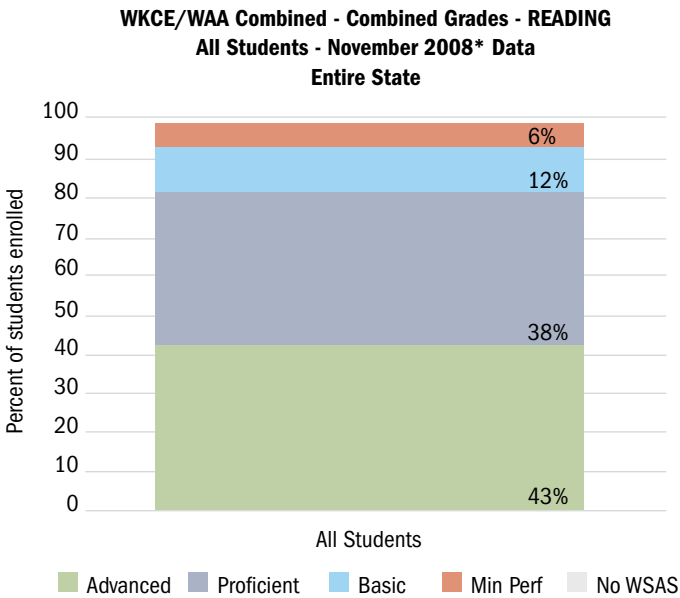
Source: Adapted from The Education Trust, College Results Online (http://www.collegeresults.org/search_group.aspx)

Table 11. 6-year Graduation Rates at Neighboring Competitive Institutions

Institution	Overall Grad Rate	Racial/Ethnic Minority Total	African-American Total	Latino Total	Asian Total	White Total
University of Wisconsin-Madison	79%	60%	56%	65%	71%	81%
University of Chicago	90%	86%	89%	85%	94%	90%
University of Michigan-Ann Arbor	88%	76%	72%	83%	93%	91%
Michigan State University	74%	57%	59%	55%	73%	78%
Ohio State University-Main Campus	71%	54%	52%	58%	82%	74%
University of Iowa	66%	52%	44%	60%	63%	67%
Iowa State University	66%	52%	47%	59%	64%	67%
University of Minnesota-Twin Cities	63%	44%	39%	59%	52%	66%
University of Illinois at Chicago	50%	37%	26%	44%	57%	53%
Indiana State University	41%	34%	36%	14%	33%	43%

Source: Adapted from The Education Trust, College Results Online (http://www.collegeresults.org/search_group.aspx)

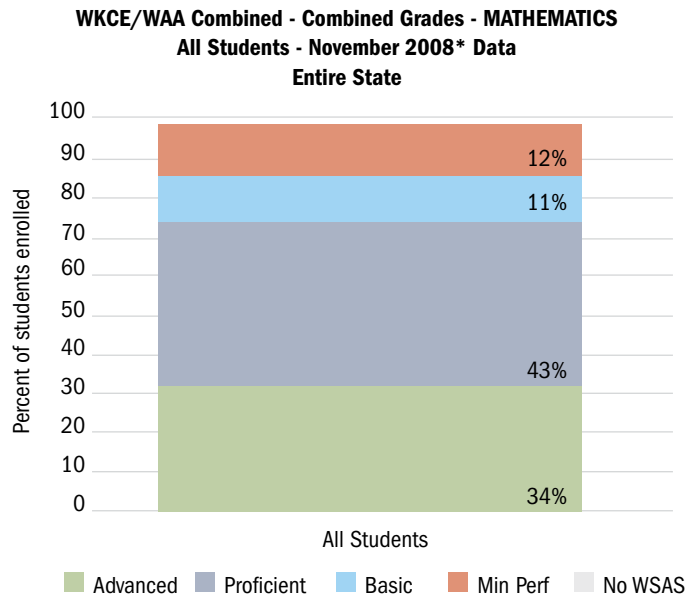
Figure 7. Reading



* Proficiency data for November 2002 and later are not comparable to earlier years.

Source: Wisconsin Department of Public Instruction.⁶²

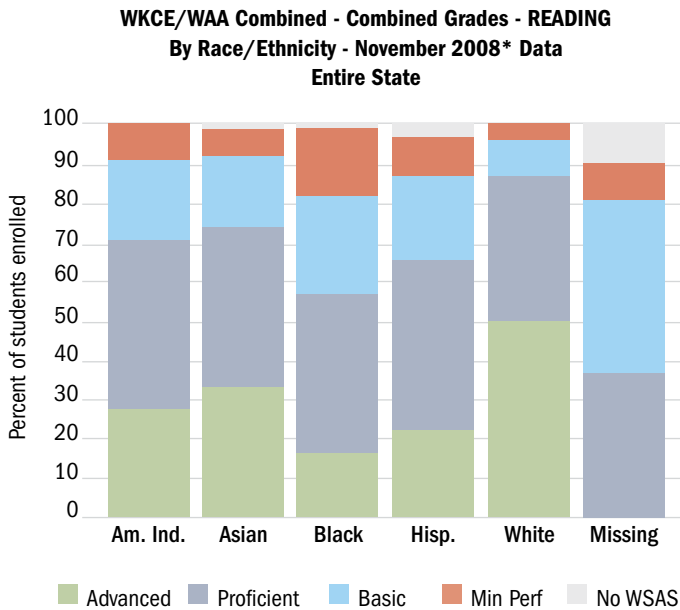
Figure 8. Math



* Proficiency data for November 2002 and later are not comparable to earlier years.

Source: Wisconsin Department of Public Instruction.⁶³

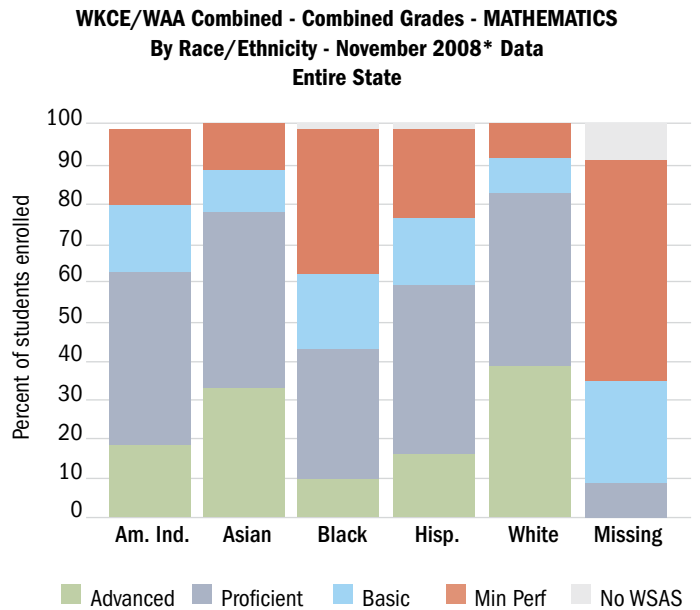
Figure 9. Reading



* Proficiency data for November 2002 and later are not comparable to earlier years.

Source: Wisconsin Department of Public Instruction.⁶⁴

Figure 10. Math



* Proficiency data for November 2002 and later are not comparable to earlier years.

Source: Wisconsin Department of Public Instruction.⁶⁵

WKCE & WAA Combined, All Students in Combined Grades, by Economic Status

Table 12. Reading

	Enrolled in Tested Grade(s)	No WSAS	Min Perf	Basic	Proficient	Advanced
Economically Disadvantaged	150,531	1%	11%	21%	43%	24%
Not Economically Disadvantaged	283,734	0%	3%	8%	36%	53%

22% more advantaged students scored proficient or advanced.

Advantaged students achieved double the advanced scores.

Source: Wisconsin Department of Public Instruction.⁶⁶

Table 13. Math

	Enrolled in Tested Grade(s)	No WSAS	Min Perf	Basic	Proficient	Advanced
Economically Disadvantaged	150,531	1%	23%	16%	43%	18%
Not Economically Disadvantaged	283,734	0%	6%	8%	43%	42%

43% of both groups scored proficient on the Math test.

The advantaged group had more than double the number of advanced scores.

Source: Wisconsin Department of Public Instruction.⁶⁷

Table 14. Science

	Enrolled in Tested Grade(s)	No WSAS	Min Perf	Basic	Proficient	Advanced
Economically Disadvantaged	63,072	2%	19%	23%	42%	14%
Not Economically Disadvantaged	128,200	1%	6%	10%	46%	37%

83% of advantaged students were proficient or advanced compared to 56% of disadvantaged students. 23% more advantaged students scored advanced on the Science test.

Source: Wisconsin Department of Public Instruction.⁶⁸

Table 15. Average Debt and Pell Grant Amount: 2007-08

	Percentage of Graduates With Debt	Percent of Graduates Borrowing Federal Loans	Average Debt of Graduates In Federal Loans	Average Pell Grant Amount Per Recipient
Wisconsin	64%	63%	\$17,694	\$2,479
Minnesota	72%	70%	\$16,773	\$2,396
Illinois	58%	57%	\$16,355	\$2,473
Nation	59%	57%	\$17,062	\$2,567

Source: The Institute for College Access & Success, College InSight (beta), <http://www.college-insight.org>

Key resources

<http://www.census.gov>

<http://www.college-insight.org>

http://www.collegeresults.org/search_group.aspx

<http://www.cows.org>

<http://data.bls.gov>

<http://data.dpi.state.wi.us/>

<http://www.dwd.state.wi.us/>

<http://www.edtrust.org/>

<http://www.higheredinfo.org>

<http://www.luminafoundation.org>

http://mpsportal.milwaukee.k12.wi.us/portal/server.pt/gateway/PTARGS_0_2_52905_0_0_18/PSReport_03252009.pdf

<http://nces.ed.gov/>

<http://www.wtcsystem.edu/>

<http://www.uwsa.edu/>

- ¹ <http://www.all4ed.org/files/Wisconsin.pdf>.
- ² Ibid.
- ³ United States Department of Labor – Bureau of Labor Statistics. Regional and State Employment and Unemployment Summary. Retrieved from: <http://www.bls.gov/news.release/laus.nr0.htm>.
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- ¹⁶ The National Center for Children in Poverty (NCCP) is a division of the Mailman School of Public Health at Columbia University. Retrieved from: http://nccp.org/profiles/WI_profile_7.html.
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- ¹⁸ Trostel, P.A. (2007). High Returns: Public Investment in Higher Education New England Public Policy Center Working Paper 7(2).
- ¹⁹ Ibid.
- ²⁰ Wisconsin Department of Public Instruction. Public School Enrollment by Ethnicity <http://data.dpi.state.wi.us/data/graphshell.asp?Group=Race/Ethnicity&GraphFile=GROUPS&DETAIL=YES&CompareTo=PRIORYEARS&STYP=9&ORGLLEVEL=ST&FULLKEY=ZZZZZZZZZZ&DN=None+Chosen&SN=None+Chosen>.
- ²¹ Wisconsin Department of Public Instruction. Public School Enrollment by Economic Status <http://data.dpi.state.wi.us/data/graphshell.asp?Group=EconomicStatus&GraphFile=GROUPS&DETAIL=YES&CompareTo=PRIORYEARS&STYP=9&ORGLLEVEL=ST&FULLKEY=ZZZZZZZZZZ&DN=None+Chosen&SN=None+Chosen> and DPI ConnectEd Newsletter March 22, 2010 edition Retrieved from: <http://dpi.wi.gov/dpi-connected/index.html>.
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- ²⁸ Wisconsin Technical College System Factbook. Retrieved from: <http://www.wtcsystem.edu/reports/data/factbook/index.htm>.
- ²⁶ The National Center for Education Statistics. Retrieved from: <http://nces.ed.gov/ipeds/datacenter>.
- ³⁰ Mortenson, T. (2010). "State Fiscal Support for Higher Education: FY1961 to FY2010." *Postsecondary Education Opportunity*.
- ³¹ University of Wisconsin System Administration *Single-Year Headcount Reports - All Students*. Retrieved from: http://www.uwsa.edu/opar/ssb/single_year_hc_all.htm.
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- ³³ For each sector's headcount see, Wisconsin Technical College System <http://www.wtcsystem.edu/reports/data/factbook/pdf/headcount.pdf> and http://www.wtcsystem.edu/legislative/state/pdf/enrollments_unemployment.pdf and The National Center for Education Statistics <http://nces.ed.gov/ipeds/datacenter>.
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- ³⁶ The National Center for Education Statistics. Retrieved from: <http://nces.ed.gov/ipeds/datacenter>.
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- ³⁸ National Center for State Higher Education Policymaking and Analysis. Retrieved from: <http://www.higheredinfo.org>.
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The Wisconsin Covenant Foundation, a private charitable organization, was founded in 2007 to provide support to students with financial need who fulfill the pledge of the Wisconsin Covenant. By investing in the youth of our state and helping make college more affordable to those students that might otherwise not attend, the Foundation is committed to funding Wisconsin’s future.

Under the Wisconsin Covenant, eighth grade students pledge to graduate from a Wisconsin high school, take college preparatory classes, maintain at least a B average, and practice good citizenship. Any student who fulfills the pledge will be recognized as a Wisconsin Covenant Scholar, receive a financial aid package based on the family’s financial need, and be guaranteed a place at a Wisconsin college or university. The Wisconsin Covenant was developed by Governor Doyle and is managed through the Department of Administration’s Office of the Wisconsin Covenant.

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