Public Policy Forum
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EDUCATIONAL ATTAINMENT IN SOUTHEAST WISCONSIN

November 2010

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ABOUT THE PUBLIC POLICY FORUM

Milwaukee-based Public Policy Forum – which was established in 1913 as a local government watchdog – is a nonpartisan, nonprofit organization dedicated to enhancing the effectiveness of government and the development of southeastern Wisconsin through objective research of regional public policy issues.

PREFACE AND ACKNOWLEDGMENTS

This report was undertaken to provide citizens, education and business leaders, and policymakers with information on the talent development pipeline and its influence on economic development policy in southeast Wisconsin. We hope the organizations partnering on the region's Talent Dividend Initiative will use the report's baseline measures and findings to inform discussions and strategy development for increasing the number of bachelor's degree holders and improving overall educational attainment in the region.

Report authors would like to thank the Regional Workforce Alliance (RWA) and its WIRED Initiative for partnering with the Public Policy Forum to establish baseline measures related to educational attainment for this report. Research and data from the National Talent Dividend Network sponsored by CEOs for Cities also helped inform metric development.

This report was funded by a grant awarded under the Workforce Innovation in Regional Economic Development (WIRED) Initiative as implemented by the U.S. Department of Labor's Employment & Training Administration. The information contained in this product was created by a grantee organization and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This product is copyrighted by the institution that created it and is intended for individual organizational, non-commercial use only.

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INTRODUCTION

The Talent Dividend Initiative is a national program that seeks to increase educational attainment levels in major urban areas as part of a strategy to enhance their economic health. The initiative is spearheaded by CEOs for Cities, a network of urban leaders from the civic, business, academic and philanthropic sectors who advocate for "great cities that excel in the areas most critical to urban success: talent, connections, innovation and distinctiveness." A key component of the group's Talent Dividend Initiative is to build a network of local partners to focus efforts in specific metro areas.

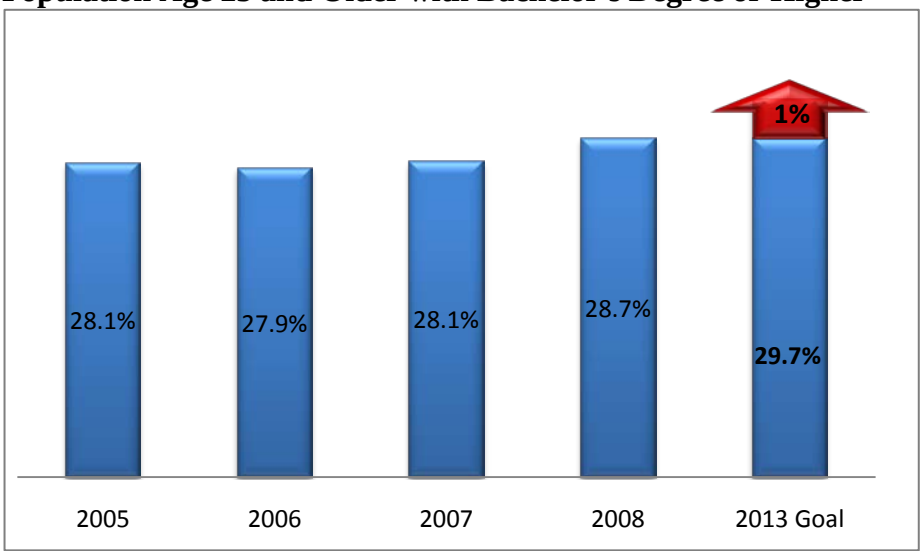
In metro Milwaukee, as a part of the WIRED Initiative, the Regional Workforce Alliance (RWA) – a collaboration of organizations representing workforce development, economic development and education across southeast Wisconsin – has established the framework for pursuing the local talent dividend goal and a regional strategy for increasing educational attainment.

Increasing a region's educational attainment levels has gained attention as a proactive economic development strategy for two fundamental reasons. First, many executives cite local workforce skills as an important factor in making company location and relocation decisions.[1] In addition, researchers note regional benefits linked to a skilled regional workforce.[2] CEOs for Cities' own analysis suggests that a one percentage point increase in the number of bachelor's degree holders (age 25 years and older) in a metro region can produce a $763 increase in annual per capita income.[3]

For the seven counties in southeast Wisconsin (Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha), CEOs for Cities estimates that increasing bachelor's degree attainment from 28.7% to 29.7% would result in 13,146 new bachelor's degree holders and a "talent dividend" equal to almost $1.5 billion annually (**Chart 1**). Thus, Milwaukee's Talent Dividend Initiative has set its sights on producing a one percentage point growth in attainment within three years.

[1] *Existing workforce skills* top Site Selection Magazine's list of top 10 factors considered by real estate executives when making location decisions, November 2009, http://www.siteselection.com/portal/index.shtml.
[2] Gottlieb and Fogarty explored the influence of educational attainment on metropolitan growth in a 2003 article in *Economic Development Quarterly*. In a 2004 paper in *Brookings-Wharton Papers on Urban Affairs*, Glaeser and Saiz note increased productivity for regions with educated workers.
[3] CEOs for Cities, "City Dividends: How Cities Gain by Making Small Improvements in Metropolitan Performance," September 2008.

Chart 1: Educational Attainment in Southeast Wisconsin
Population Age 25 and Older with Bachelor's Degree or Higher

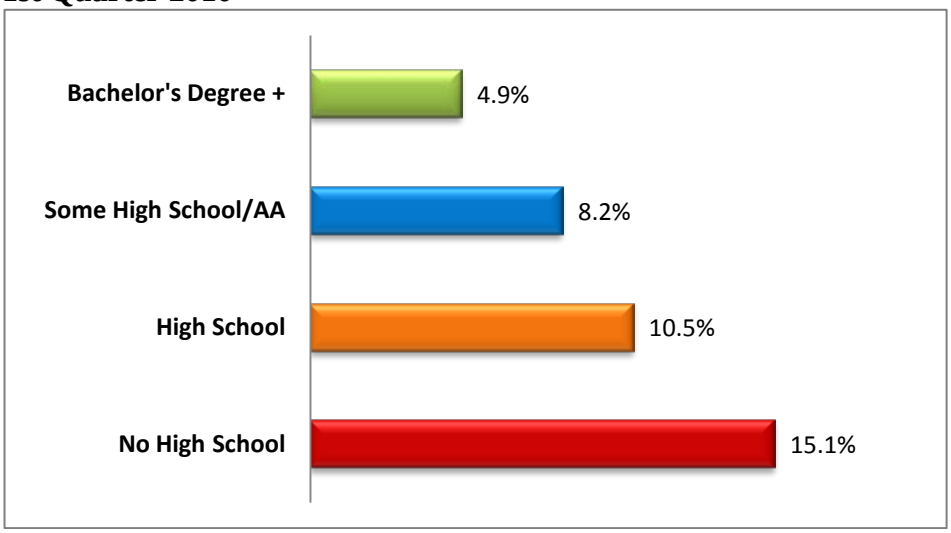


Source: American Community Survey

Efforts to increase educational attainment not only can be seen as a broad economic development strategy that could help the region recognize a significant economic dividend, but also should be viewed as a strategy that recognizes the realities facing individuals in the 21st century "knowledge economy." Earning a high school diploma no longer ensures one's ability to find and secure a family-supporting job. Those who drop out of high school or who stop their education at the high school level are more likely to be unemployed and earn less than those who complete a college degree (**Charts 2** and **3**). The economic shift away from low-skilled manufacturing jobs toward higher-skilled information, service, manufacturing and technology jobs has increased demand for applicants with higher levels of education and skill. By 2018, 62% of the nation's jobs are projected to require at least some college education.[4]

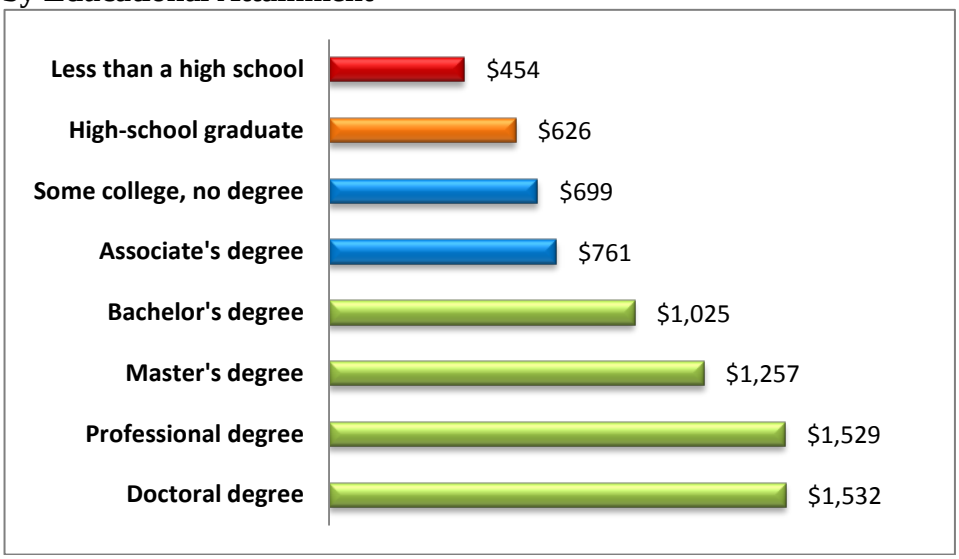
[4] Carnevale, Anthony P., *Postsecondary education and training as we know it is not enough: why we need to leaven postsecondary strategy with more attention to employment policy, social policy, and career and technical education in high school,* prepared for the Georgetown University and Urban Institute Conference on Reducing Poverty and Economic Distress after ARRA, April 2010.

Chart 2: U.S. Unemployment Rate by Education Level: 1st Quarter 2010



Source: Bureau of Labor Statistics

Chart 3: U.S. Average Weekly Earnings 2009 by Educational Attainment



Source: Bureau of Labor Statistics, Current Population Survey.

The RWA, through its WIRED Initiative grant, engaged the Public Policy Forum to explore and identify a set of metrics that impact educational attainment and that might be used as the basis for developing specific strategies for improvement. This research effort recognizes that the Talent Dividend Initiative goal, though narrowly defined as increasing bachelor's degree attainment, necessarily will entail making progress on several other measurable outcomes, such as reducing the number of high school drop outs, increasing high school completion rates, increasing post-secondary matriculation rates, improving retention of post-secondary students until completion of either a 2-year or 4-year degree, and attracting and retaining college graduates in southeast Wisconsin.

Our focus, therefore, was to examine southeast Wisconsin's complete educational pipeline, from birth to career (**Diagram 1**). Although circumstances of how individuals move through the pipeline may differ (see sidebar), examining the pipeline at major transition points provides insight into the strengths and weaknesses of the overall system. These insights give rise to short-term strategies, such as re-engaging adults who have earned some college credits; and long-term strategies, such as adequately preparing students enrolled in K-12 for the opportunities available to them upon completion of high school. Both types of strategies are needed to meet and sustain the Talent Dividend Initiative goal.

This report is intended to serve as a baseline snapshot of the region's education pipeline and will be updated to capture regional progress toward the educational attainment goal. The metrics presented provide a general picture of the number and types of students in the system at particular points along the pipeline. Because the goal's focus is on increasing the *number* of bachelor's degree holders, however, this report does not attempt to measure the *quality* of the region's education system.

Moving through the Pipeline

While the education pipeline may appear linear, the reality for students can be much different. One high school student may earn a high school diploma and then later complete a four-year degree with few distractions. Another high school graduate may enter the workforce, then re-enter the educational pipeline several years later to earn a vocational certificate, which will allow him or her to find a family-supporting job. Still others may enter one of the region's technical colleges after high school with the intention of transferring to a four-year college, only to encounter financial or family concerns that cause them to discontinue their studies or scale back to earning a two-year degree. The variety of ways in which a student may navigate the education pipeline should influence how educational engagement strategies are developed and implemented.

Diagram 1: The Education Pipeline

CHILD DEVELOPMENT	EARLY LEARNING	SCHOOLING	POST-SECONDARY	TRANSITION TO DESIRED CAREER
Birth – 2: Time of greatest neurological growth; may include parent-child programs or child care.	**Ages 3-5:** Preschool, kindergarten, and child care can impact school readiness.	**Ages 6-18:** Elementary, middle and high school can lay the groundwork for future work skills and career paths.	**Post-secondary options include:** • Vocational certificate • Two-year college • Four-year college	**Opportunities for further skill-building:** • On-the-job training • Employer training • Return to college • Pursue graduate school or professional degree

DATA NOTES

Throughout the report, and consistent with how the term is commonly defined nationally, educational attainment refers to the education level of the region's adult population, defined as those age 25 and older. The Talent Dividend Initiative primarily is concerned with increasing the number of individuals in the region who possess four-year degrees and higher. Other categories of attainment include: residents who have attained less than a high school diploma; high school diplomas (including GED or high school equivalency); some college; and two-year or associate's degrees.

Data for the report were drawn from several sources. Primary sources include: the U.S. Census Bureau's American Community Survey; the Integrated Postsecondary Education Data System (IPEDs) from the National Center for Educational Statistics; and the Wisconsin Department of Public Instruction. Where available, data are presented for the seven-county region of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha. When comparisons are made to other metropolitan areas, data are for the Milwaukee-Waukesha-West Allis metropolitan statistical area (MSA), which includes Milwaukee, Ozaukee, Washington, and Waukesha Counties.

REGIONAL OVERVIEW

More than 525,000 individuals from preschool to adult are enrolled and engaged in the approximately 3,750 institutions in southeast Wisconsin's educational pipeline (**Table 1**). Given the limited number of in-migrants into the region, it is unlikely that many new bachelor's degree holders will result from attraction strategies alone.[5] Consequently, to achieve the Talent Dividend Initiative's goal of 1% growth in four-year degree attainment, the vast majority of new bachelor's degree graduates likely will have to matriculate through this pipeline.

Table 1: Southeast Wisconsin's educational infrastructure

	Number of Institutions	Enrollment	Graduates
Regulated Child Care Providers*	3,552	66,754	N/A
Public School Districts (K-12), 2009	93	310,571	22,097
Private High Schools, 2009	66	18,679	2,954
College Access Programs targeting low-income, minority and or first generation students**	22	Approx 5,533	Unknown
Community and Technical Colleges, 2008	4	41,773	2,995 AA
Public and Private, Nonprofit 4-Year Colleges and Universities, 2008	13	84,745	11,053

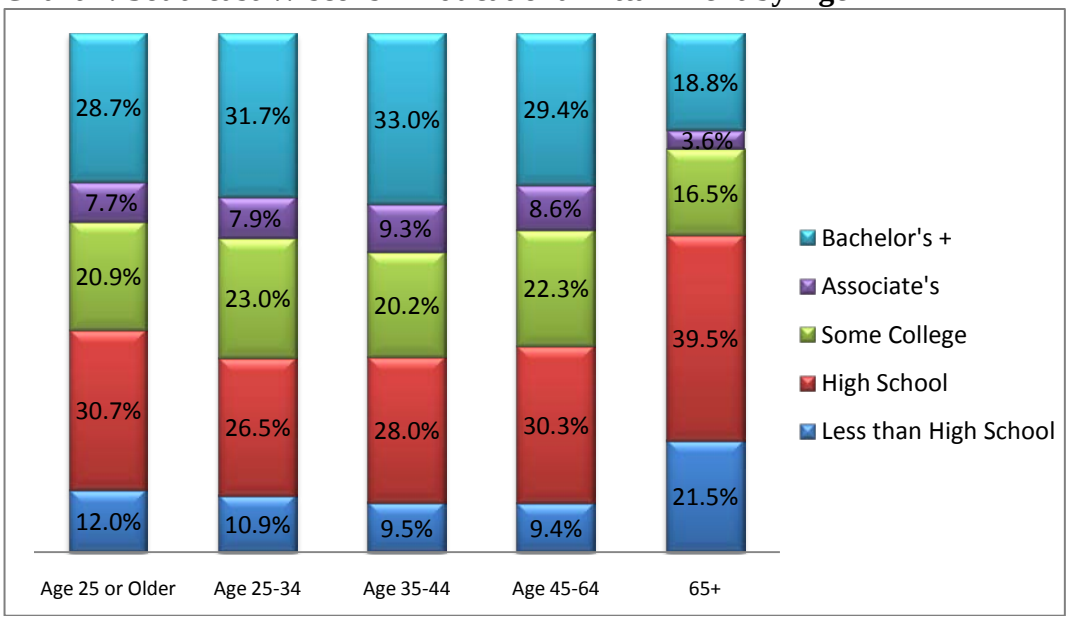
** Childcare enrollment is based on 2006 and 2008 data.*
*****Includes programs that serve qualifying high school students for at least 1 hour per week or one week per summer in the seven-county region. May not be exhaustive.***
Source: Wisconsin Department of Public Instruction 2008-2009; IPEDS 2007-2008; COMPASS Guide

In 2008, bachelor's degree attainment in the four-county Milwaukee MSA measured 30.9% – 2.2% higher than in the seven-county region. The Milwaukee MSA ranks 23rd out of the 51 largest MSAs in the country in this indicator. Washington, D.C. has the highest attainment rate at 46.8%, and Riverside-San Bernardino, CA the lowest at 19%.

Chart 4 presents the educational attainment levels in southeast Wisconsin by age cohorts. Educational characteristics consistent with the region's manufacturing history are reflected in this graph. The oldest cohort (age 65 and older) has a higher percentage of those with a high school diploma or less, denoting the region's one-time abundance of good jobs requiring less education. The younger cohorts' education distribution shows those achieving higher education in larger numbers. One area of concern, however, is the somewhat elevated percentage of individuals in the 25-34 age group who did not complete high school, relative to the region's other age cohorts.

[5] According to preliminary data analysis from the National Talent Dividend Network sponsored by CEOs for Cities, the Milwaukee MSA gained 803 individuals with bachelor's degree or higher in 2008 for a net in-migration of 0.3%.

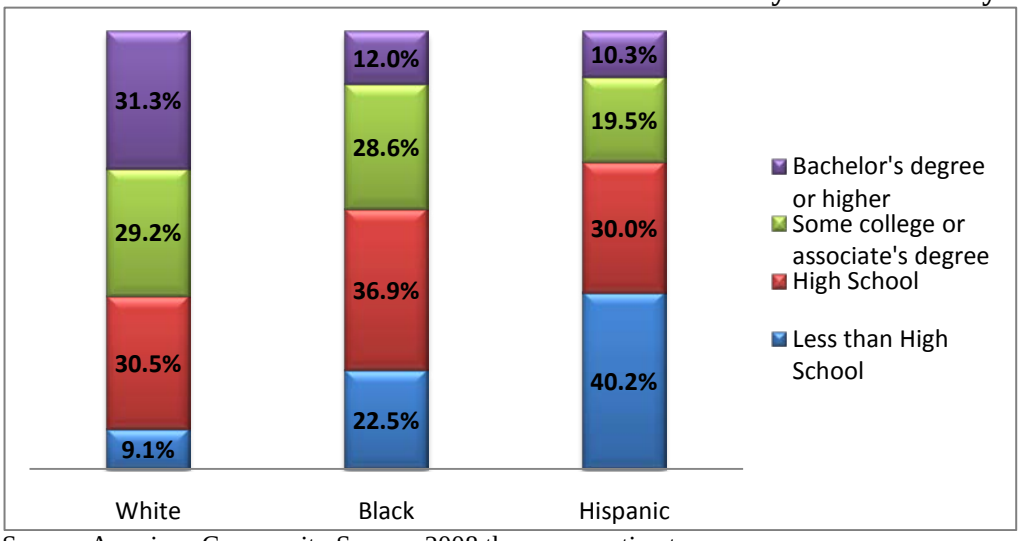
Chart 4: Southeast Wisconsin Educational Attainment by Age



Source: American Community Survey, 2008 3-year estimates

Racial and ethnic disparities in educational attainment clearly are evident in southeast Wisconsin (**Chart 5**). In 2008, the number of white residents receiving bachelor's degrees and higher (31.3%) far outpaced the number of African-American (12.0%) and Hispanic (10.3%) residents. Even more alarming is the concentration of Hispanics and African Americans who possess less than a high school diploma. While the approximately 68,000 African Americans and Hispanics who lacked a high school diploma in 2008 numbered fewer than the region's white residents who lacked this credential, the high concentration among a growing Hispanic population may impact improvement in the region's overall educational attainment levels unless strategies are developed to address this issue.

Chart 5: Southeast Wisconsin Educational Attainment by Race/Ethnicity



Source: American Community Survey, 2008 three-year estimates.

ENSURING CHILDREN ARE READY TO LEARN

Efforts to develop a better-educated workforce will require a long-term commitment. The foundation for learning starts before a child enters kindergarten and continues in and out of the classroom as a child moves through primary and secondary schools. This section provides an overview of metrics that might be utilized to assess the region's progress in ensuring children are ready to learn, including enrollment in the region's preschool and kindergarten programs and measures of the regional environment that influence the ability of low-income children to succeed in school.

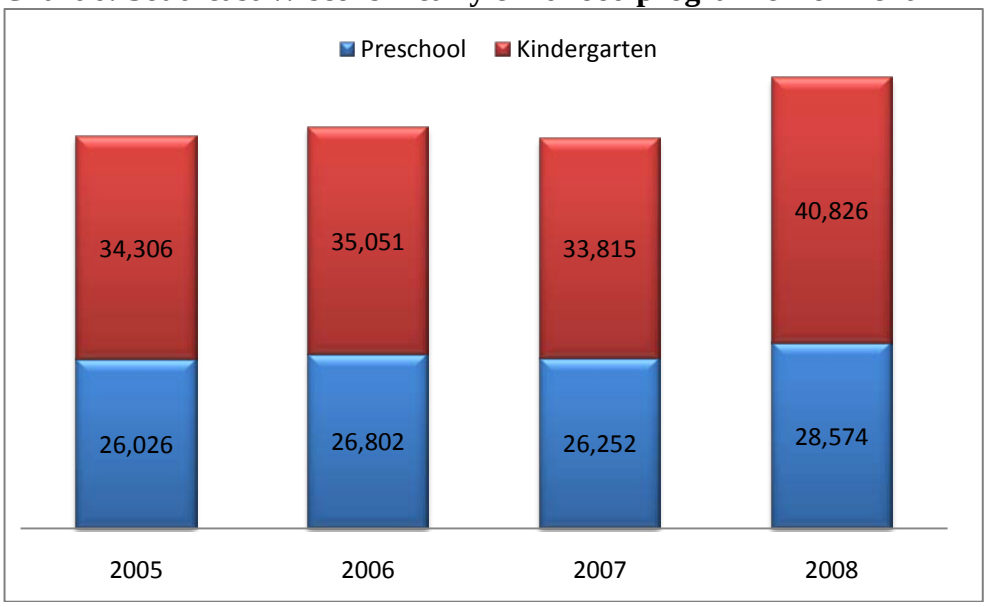
EARLY LEARNING

A growing body of research shows that high quality early childhood education programming results in better school readiness, both academically and socially, laying the foundation for future learning.[6] In southeast Wisconsin, enrollment in preschool and kindergarten programs increased 15% between 2005 and 2008 (**Chart 6**), fueled primarily by increased enrollments in Milwaukee County's preschool and kindergarten programs and in Kenosha County's kindergarten programs. Prior Public Policy Forum work has shown that Milwaukee kindergarten teachers believe children who have attended preschool are better prepared for kindergarten socially and academically. In addition, they feel this preparation leads to success in elementary school.[7]

[6] Public Policy Forum, *Matrix of Research on Early Childhood Education Outcomes*, an interactive webpage synthesizing decades of research on early learning, available at: http://www.publicpolicyforum.org/Matrix.htm

[7] Public Policy Forum, "MPS teachers link preschool to better performance in Kindergarten," *Research Brief* Vol. 97, No. 4, July 2009. Available at: http://www.publicpolicyforum.org/pdfs/K5SurveyBrief.pdf

Chart 6: Southeast Wisconsin early childhood program enrollment



Source: American Community Survey, school enrollment by level (ages three and above), one-year estimates

ENVIRONMENTAL FACTORS

Factors such as family dynamics, poverty, public health and safety influence the ability of children to succeed in the classroom and can play a significant role in educational outcomes. Metrics surrounding these factors, therefore, may be useful in assessing and tracking educational attainment progress.

For example, higher educational attainment by parents has been linked to improved school readiness, educational achievement, social skills and child well-being.[8] While data currently is limited on parental educational attainment levels in the region, in the City of Milwaukee, 22% of children live in households where parents have less than a high school diploma, which is well above the national rate of 16% (**Table 2**). Conversely, 16% of Milwaukee's children live in households with a bachelor's degree or higher, the 5th lowest percentage of the 50 cities compared by the Annie E. Casey Foundation.

Table 2: Educational attainment of parents

	% children in households where parent has less than high school diploma	% children in households where parent has bachelor's degree
City of Milwaukee	22%	16%
Wisconsin	9%	30%
United States	16%	28%

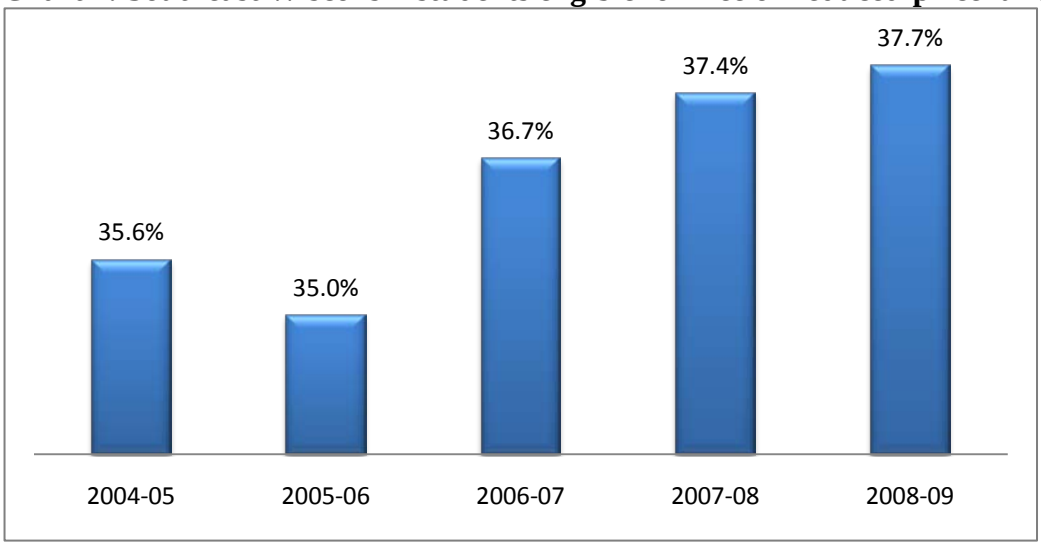
Source: Annie E. Casey Foundation, Kids Count Data Center. http://datacenter.kidscount.org/ accessed 6/30/2010.

[8] Child Trends, PARENTAL EDUCATION, 2010. Retrieved from www.childtrendsdatabank.org/?q=node/183.

Childhood poverty, meanwhile, has been linked to lower achievement and reading scores and higher incidents of high school drop-outs.[9] The free and reduced-price lunch program, which ensures that qualifying children get healthy lunches during the school year, serves as a rough proxy of the number of children who live in families with an income at or below 185% of the federal poverty level guidelines and provides an estimate of the impact of poverty on the area's student body. More than 117,000 students received free and reduced-price lunches (FRPL) from the region's schools in 2008-09 (**Chart 7**), an increase of 2.1 percentage points since 2004-2005. The regional FRPL rate of 37.7% exceeds the 33.6% rate for the State of Wisconsin.[10]

The increased participation in the FPRL may underestimate the region's low-income children and need for food assistance given current economic conditions.[11] Consequently, food stamp participation in the region, while not limited to families with children, may help provide a more complete picture of poverty in the region. Participation in the state's Food Share program increased 25% between 2008 and 2009 (**Chart 8**).

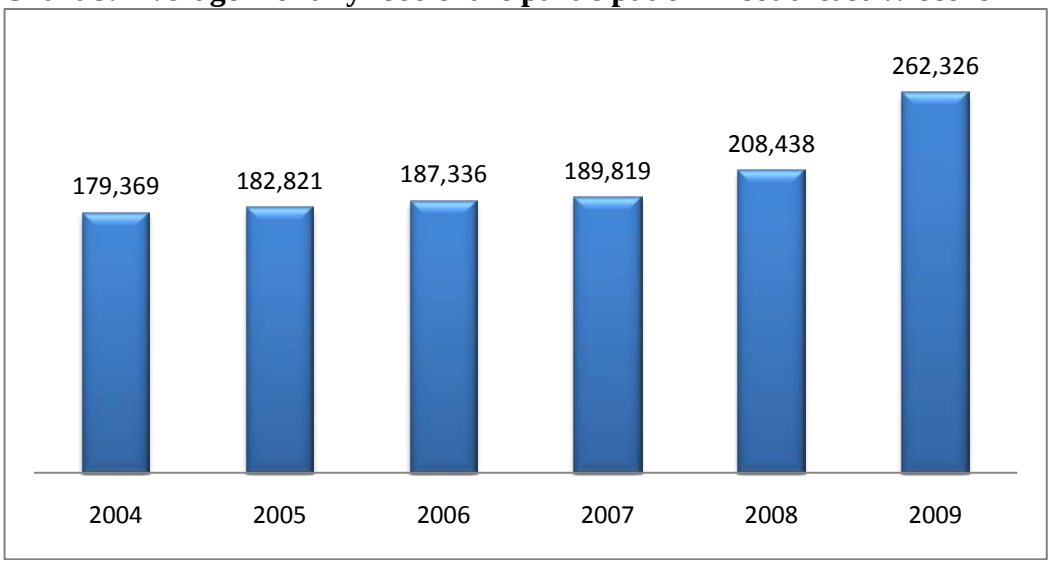
Chart 7: Southeast Wisconsin students eligible for free or reduced-price lunch



Source: Wisconsin Department of Public Instruction

[9] Child Trends, *Children in Poverty: Trends, Consequences, and Policy Options*, Publication #2009-11, April 2009.
[10] Public Policy Forum, *Public Schooling in Southeastern Wisconsin 2008-2009.*
[11] Free and reduced-price lunch only includes students that apply and qualify for the program. It does not take into account students who do not apply, yet may be eligible. This potential for underestimation is particularly relevant in the high school years, where FRPL rates are significantly lower than in elementary years.

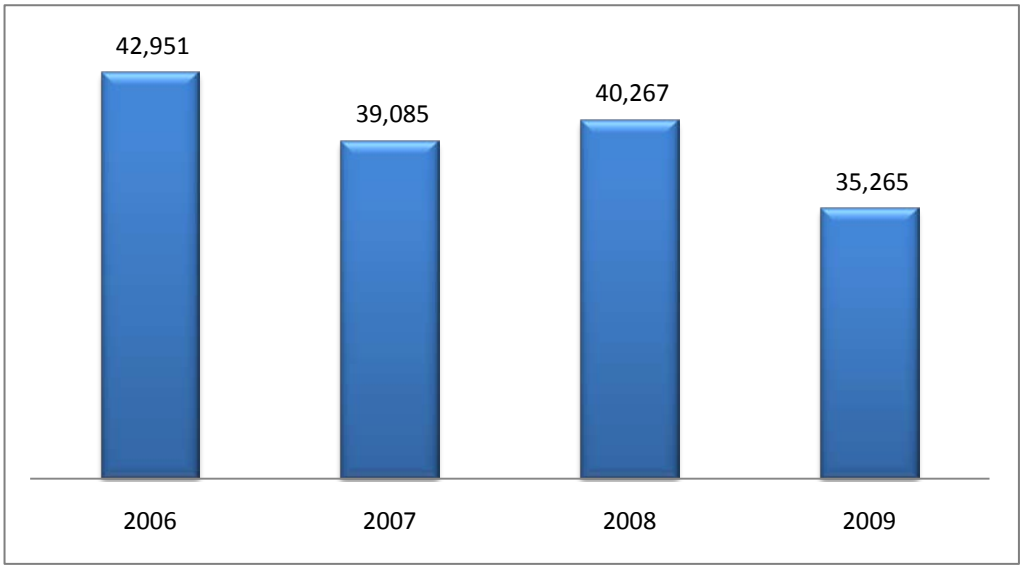
Chart 8: Average monthly food share participation in southeast Wisconsin



Source: Wisconsin Department of Health Services, State Food Stamp/Food Share Participation Data

Criminal activity in the community and at schools also can be a barometer for student success, as young victims and perpetrators of crime are at an increased risk of dropping out of school.[12] Juvenile crimes in the region have fallen by 18% from 2006 (**Chart 9**). The drop is attributed primarily to decreases in societal crimes such as sex offenses, DWI, disorderly conduct, curfew infractions and loitering. Several counties saw drops in societal crimes, with Milwaukee and Waukesha Counties experiencing the largest drop of 27%.

Chart 9: Juvenile arrests in southeast Wisconsin



Source: Wisconsin Office of Justice Assistance, http://oja.wi.gov

[12] Wordes, M., & Nunez, M., *Our Vulnerable Teenagers: Their Victimization, Its Consequences, and Directions for Prevention and Intervention*, National Council on Crime and Delinquency, 2002. http://www.ncvc.org/ncvc/main.aspx?dbID=DB_Teens453

Ensuring the region's education pipeline is running at full capacity requires "priming the pump" by addressing certain environmental factors that can hinder child development and learning, such as poverty, poor health, and unsafe neighborhoods. In the long run, a policy focus on these issues will impact the region's educational attainment rates. Also, one of the most effective ways to mitigate poor environmental conditions is to improve access to high quality early childhood education, which can produce both near-term and long-term impacts on the pipeline.[13]

[13] Public Policy Forum, *Matrix of Research on Early Childhood Education Outcomes*, an interactive webpage synthesizing decades of research on early learning, available at: http://www.publicpolicyforum.org/Matrix.htm

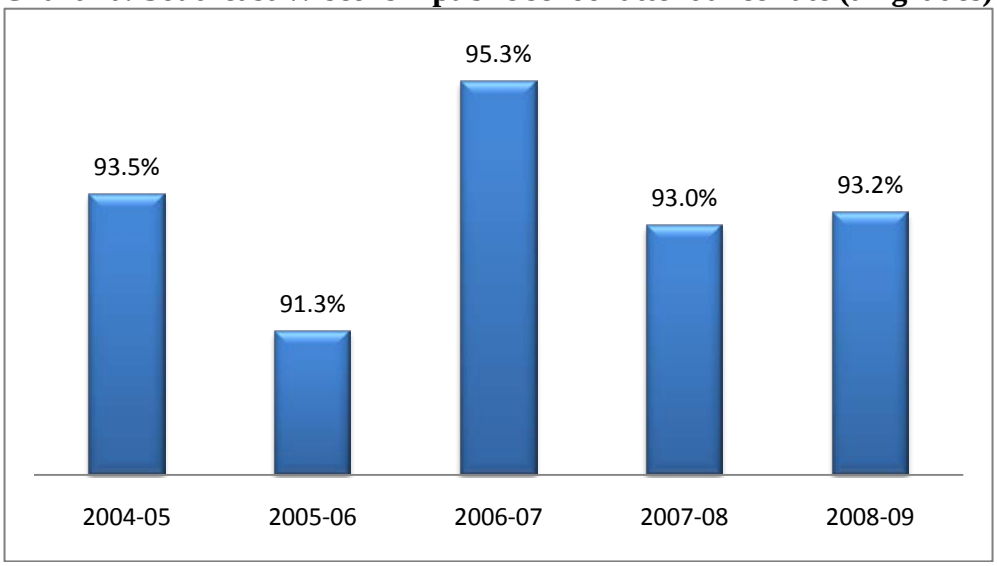
PREPARING K-12 STUDENTS FOR COLLEGE SUCCESS

In the 2008-2009 school year, enrollment in the region's primary and secondary schools totaled 379,000, with most students (82%) enrolled in public school districts. Ensuring the success of these students obviously is critical for improving and sustaining regional gains in college degree attainment levels. This section presents an overview of metrics that could be used to track and assess student participation and college preparation.

STUDENT ATTENDANCE

Attendance is a key indicator of student performance at the K-12 level, as well as a barometer of positive college-going behaviors. In the region's public schools, attendance rates in 2008-09 measured 93.2%, down slightly over the five-year period (**Chart 10**). The low attendance rate in the Milwaukee Public Schools (87.9%), which is by far the region's largest district, clearly played a significant role in driving down the regional rate.

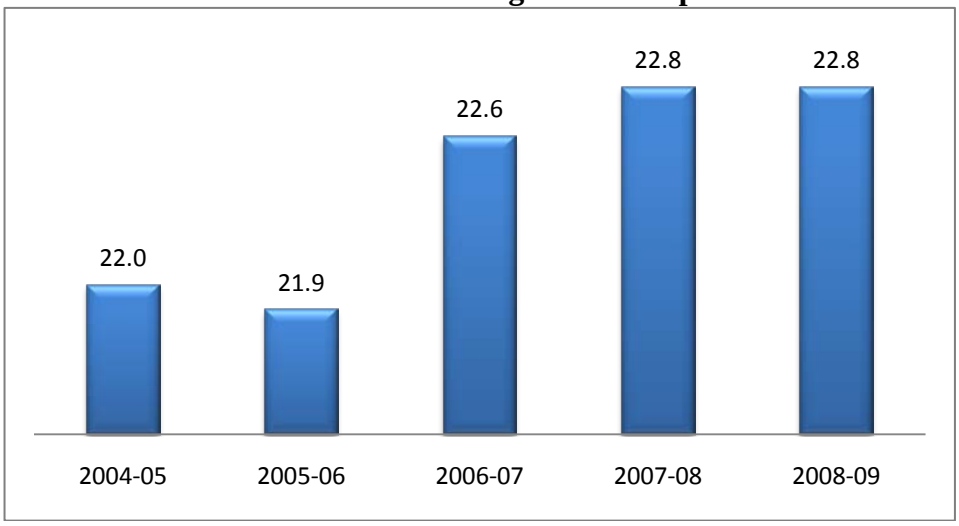
Chart 10: Southeast Wisconsin public school attendance rate (all grades)



Source: Wisconsin Department of Public Instruction

Students who are interested in attending college need to demonstrate potential suitability for higher education by performing well on college entrance and placement exams. The ACT exam tests high school students in English, math, reading, and science, and is required for most college applications. Southeast Wisconsin's regional composite score of 22.8 (**Chart 11**) has increased since 2004 and exceeds the average state district score of 22.2 and the national average composite score of 21.1.[14] The regional score may level off or decline in the short term, however, as the region's largest school district, MPS, implements a new policy of administering the exam free-of-charge to all high school juniors.

Chart 11: Southeast Wisconsin average ACT composite score



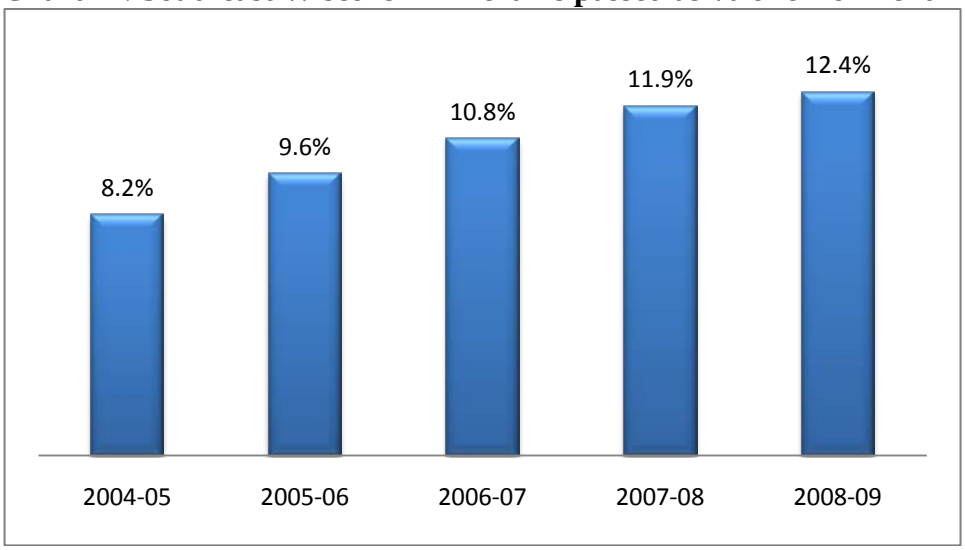
Source: Wisconsin Department of Public Instruction

Another logical barometer of the potential of the region's students to attend and succeed in college is performance on Advanced Placement (AP) exams. Students bound for college are encouraged to enroll in high school AP classes, covering subjects such as foreign language, physical science, social science, and math. AP classes offer accelerated learning, increased opportunities for college preparation, and college credit with a high score on the exam. AP exam passage rates indicate, therefore, how well high school students perform in college-level classes. The percentage of AP exams passed as compared to overall enrollment has steadily increased in Southeast Wisconsin since 2004 (**Chart 12**) and exceeds the state rate of 9.6%.

It should be noted, however, that while this metric indicates progress in the region, it has limitations as a measure of student preparation for college. Availability of AP classes varies by school district in the region, as these courses are more costly for schools to offer, impacting the number of opportunities for students to take AP courses and the AP exam.

[14] *2009 ACT National Profile Report*, http://www.act.org/news/data/09/pdf/one.pdf

Chart 12: **Southeast Wisconsin AP exams passed as % of enrollment**



Source: Wisconsin Department of Public Instruction

The educational pipeline can begin to leak as early as elementary school if student attendance rates are not maximized. Except for the rare student, attendance is a necessary ingredient in academic success at all grade levels. Communicating the need for the region's parents and students to make attendance a priority will help maximize the pipeline's capacity from start to finish, as well as support better academic outcomes.

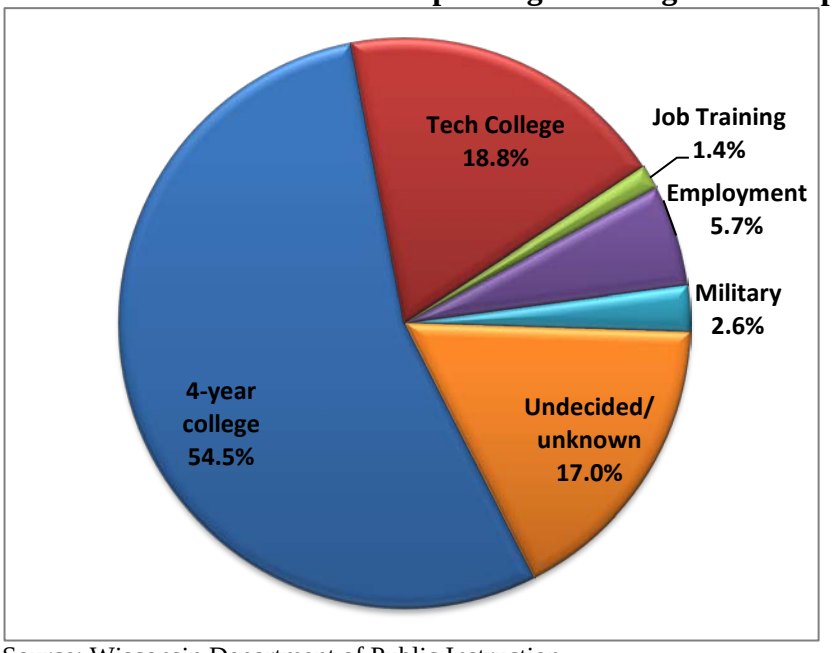
Once students are in middle school, and certainly by high school, it becomes important for them to be given an opportunity to consider college as a realistic option. Providing access to college-level courses and entrance exams is one way to do so. Unfortunately, this access is not uniform across the region and needs improvement. Also, as access is broadened, there may be some slippage in achievement. In order to translate these metrics into higher educational attainment rates, it will be important to monitor whether students who have taken advantage of college-preparation opportunities are, in fact, succeeding at them.

BRIDGES TO COLLEGE

In addition to considering the effectiveness of the region's K-12 schools in *preparing* students for college, efforts to increase the number of four-year college degree-holders will require strategies to ensure greater numbers of students leaving high school see the *value* of a college education. A logical metric to utilize to monitor efforts to increase the number of college graduates, therefore, would involve the number of high school students who express interest and intent to attend college upon graduation.

According to survey results released by the Wisconsin Department of Public Instruction, more than 54% of the 22,097 graduates from Southeast Wisconsin's public high schools in 2008-2009 indicated that they intended to enroll in a four-year college after high school graduation, while another 18.8% said they planned to enter a technical or community college (**Chart 13**). Meanwhile, a substantial portion (17%) said they had not decided on a clear educational or career path upon graduation, including 2,223 students who did not respond to the question and 1,092 who were undecided about their post-graduation plans.

Chart 13: Southeast Wisconsin post-high school graduation plans 2008-09



Source: Wisconsin Department of Public Instruction

There may be some divergence, however, between the intent of high school graduates to attend college soon after graduation and their actual enrollment in college. In the 2007-2008 school year, 77% of high school seniors graduated in four years in the Milwaukee MSA, ranking it 8th out of the 51 largest MSAs. Even with a high rate of high school completion, however, only 46.9% of 18-24 year olds were enrolled in college in 2008 (**Table 3**).

Analysis conducted by the Milwaukee Public Schools shows a significant discrepancy in how 2006-2007 graduates responded to post-graduation questions and actual post-high school college

enrollment rates. In fact, 31.1% fewer MPS graduates actually enrolled in a two-year, four-year or proprietary institution within one year of graduation than had planned to enroll.[15] National research also has shown significant "melt" or loss of college-bound seniors during the summer after high school graduation. Changes in college plans occur most frequently among low-income and first generation college applicants who have limited role models or mentors to advise them on decisions affecting college entrance in the fall.[16]

Table 3: Milwaukee Metropolitan Statistical Area (MSA) – College Continuation Statistics, 2008

	Seven- County Regional %	Milwaukee MSA %	Median % 51 Largest MSAs	MSA Rank
High School Completion*	n.a.	77.0%	71.4%	8 of 51
19 year olds that hold a High School Diploma**	n.a.	85.9%	84.6%	18 of 51
College Continuation (18-24 year olds enrolled in college)**	n.a.	46.9%	44.5%	18 of 51

**National Center for Education Statistics*
***American Community Survey, 3-year estimates*
Source: Data analysis by the National Talent Network and Impresa Economics

Southeast Wisconsin has 22 pre-college programs that aim to increase college access among low-income, minority, and first-generation college applicants, offering at least 50 hours of programming during the school year or summer to high school students.[17] These programs reach approximately 5,533 students, just a fraction of the students that could benefit from the academic mentoring, college exploration, financial aid assistance, and personal support such programs provide. Clearly, this is a potential area of focus for those seeking to increase educational attainment levels.

[15] Wisconsin Center for Education Research and Milwaukee Public Schools, *Tracking Postsecondary Enrollment and Persistence of Milwaukee Public School Students: Graduates of the Classes of 2005-2007*, March 2009.
[16] Karen Arnold, Shezwae Fleming Mario DeAnda, Benjamin Castleman, and Katherine Lynk Wartman, "The Summer Flood: The Invisible Gap Among Low-Income Students," *Thought and Action*, Fall 2009.
[17] Ryan Eisner, *COMPASS Guide*: *College Access Programs in Southeastern Wisconsin*, March 2010. This listing does not include all programs providing services that may support students applying to college.

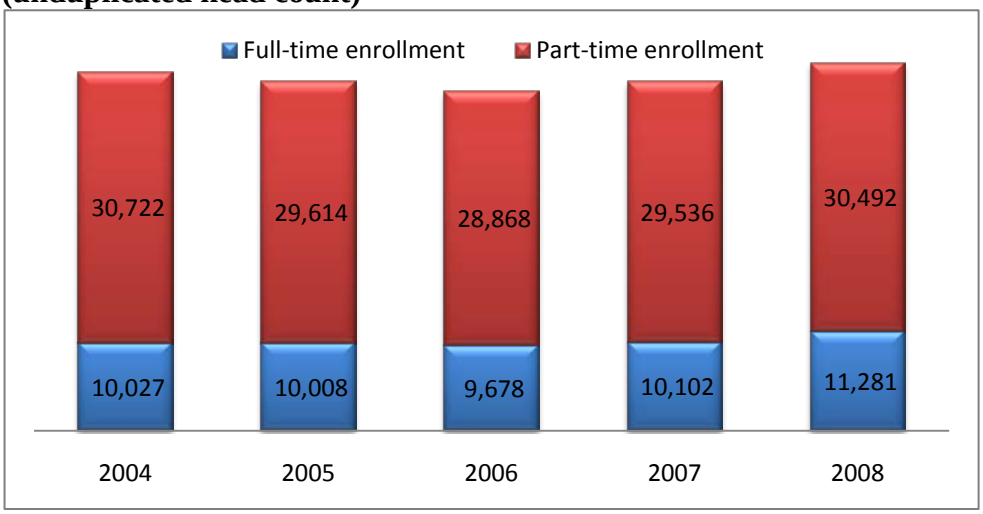
ACCESS, ENROLLMENT, AND SUCCESS – COMMUNITY AND TECHNICAL COLLEGES

Community and technical colleges play an important role in providing accessible, quality, affordable education and job training for southeast Wisconsin's residents. Milwaukee Area Technical College (MATC), Gateway Technical College, Moraine Park Technical College, and Waukesha County Technical College (WCTC) offer certificates and associates degrees in a variety of vocational and technical careers, as well as college transfer programs where students earn credits toward a four-year degree. This section presents a snapshot of student access, enrollment and success in degree attainment at the region's technical colleges, which are important metrics that impact overall regional educational attainment.

ENROLLMENT TRENDS

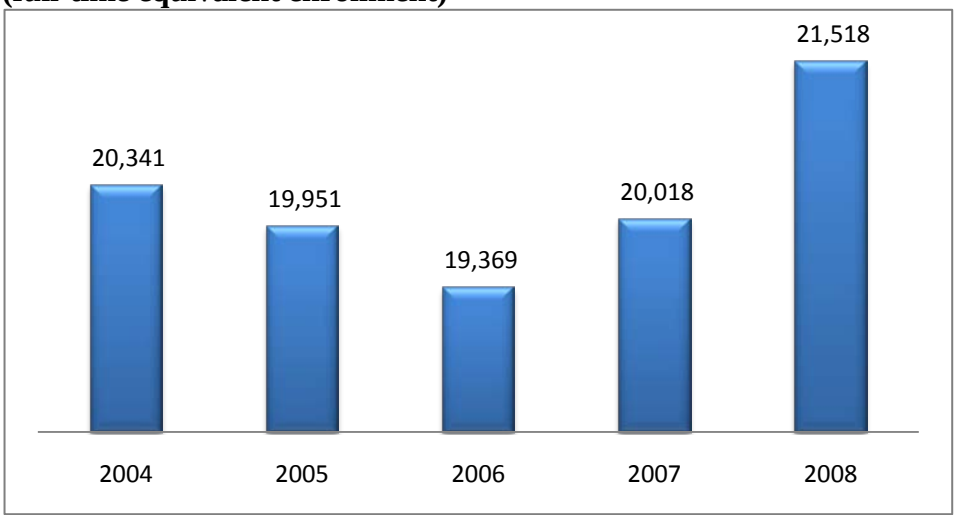
The exceedingly bleak employment picture produced by the recent economic downturn has caused many to turn to community and technical colleges to improve and gain new skills, complete prior coursework, earn credits for a two-year degree, or prepare for transfer to a four-year college or university. More than 41,700 full- and part-time students were enrolled in the region's community and technical colleges in 2008 **(Chart 14)**, and reports from those institutions suggest that number likely grew substantially in 2009 and 2010. In addition, full-time-equivalent enrollments grew 5.8% between 2004 and 2008 and 7.8% between 2007 and 2008 **(Chart 15)**.

Chart 14: Southeast Wisconsin technical college enrollment (unduplicated head count)



Source: IPEDS

Chart 15: Enrollment in southeast Wisconsin's community and technical colleges (full-time equivalent enrollment)



Source: IPEDS

While 73% of students are enrolled part-time[18] in the region's two-year institutions, more students are beginning to take a full-time course load. A recent study by the Pew Research Center notes a jump in full-time enrollment by students entering college for the first time at both two- and four-year institutions nationally, with a significant increase in two-year college enrollment between 2007 and 2008. The study attributes the rise in full-time enrollment to limited job opportunities available to high school graduates as a result of the economic recession, causing more students, especially minorities, to enter college upon completing high school.[19]

In Southeast Wisconsin's technical colleges, first-time, full-time student enrollment climbed 8.2% between 2007 and 2008, exceeding the national median of 6% among two-year institutions (**Table 4**).

As for the demographics of the students, there are variances by race and age. The race and ethnicity of area students enrolled at area technical colleges remains largely white (75%), with African-American and Hispanic students making up 11% and 6% of the student body, respectively. The demographics may be shifting, however. Between 2007 and 2008, white first-time (full- and part-time) student enrollments declined 1.9%, while first-time enrollment among African-Americans and Hispanics in the region grew by 32.6% and 9.7%, respectively.

[18] Part-time students earn less than 12 credit hours per semester.
[19] Pew Research Center, *Minorities and the Recession-Era College Enrollment Boom*, June 16, 2010, http://pewresearch.org/pubs/1629/recession-era-increase-post-secondary-minority-enrollment

Table 4: Southeast Wisconsin technical colleges enrollment by race and ethnicity

	2008 % of Student Enrollment	2007-2008 % Change in First Year, Full-time Enrollments	2007-2008 % Change in First Year Enrollments (Full- and Part-Time)
All Students		**8.2%**	**4.3%**
Whites	75%	-1.8%	-1.9%
African-Americans	11%	56.5%	32.6%
Hispanics	6%	30.5%	9.7%

Source: IPEDS

The region's technical colleges are a resource for both recent high school graduates and adult students (ages 25-64). In 2006-2007, the last period when complete data was available, the student groups under age 25 and ages 25-64 contributed equally (49.5%) to student enrollment.[20]

Enrollment trends in the region's two-year institutions are encouraging for those interested in maintaining the capacity of the education pipeline. The greatest increases have come among minority students, which bodes well for the overall goal of increasing educational attainment across the region, as the largest gap in attainment is among communities of color. It bears watching, however, as to whether an improvement in economic conditions will negatively impact these encouraging trends, as students again put off or eliminate their plans to attend college when greater numbers of low-level jobs are available.

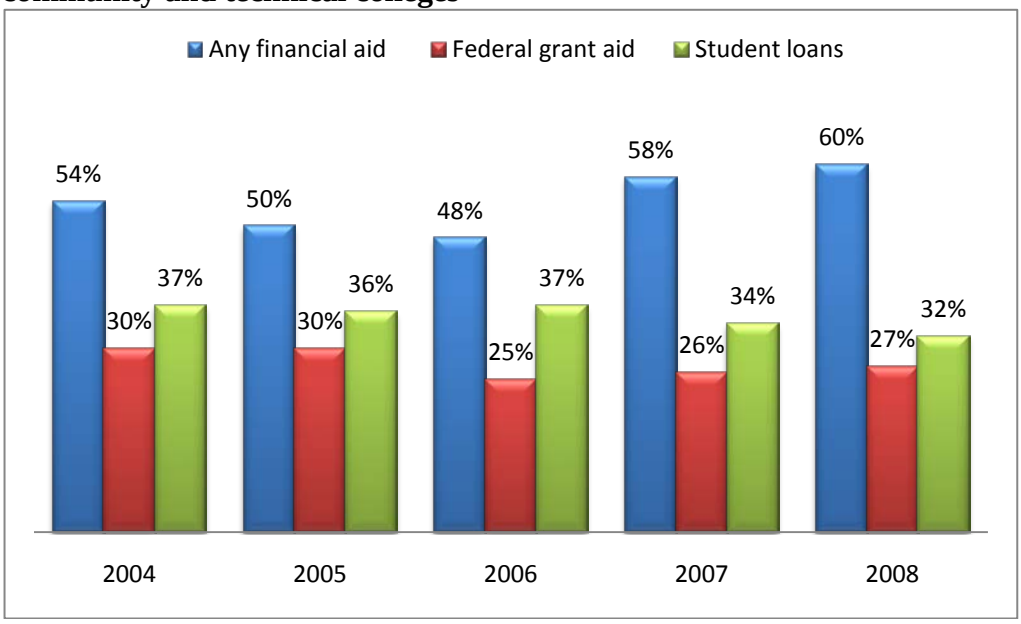
ACCESS TRENDS

Once students are enrolled in post-secondary education, whether they will earn a degree is often influenced by their ability to pay tuition. Community and technical colleges often are cited as lower-cost options for obtaining the first two years of a four-year degree. However, many two-year college students still require financial aid.

A growing percentage of first-time students enrolled in the region's technical colleges received financial aid in 2008, even as fewer received federal grant aid and/or took on student loans to pay for college (**Chart 16**). This indicates that local institutions are making up for a gap created by the reductions in federal aid, most likely through a combination of private fundraising and state aid. The percentage of students receiving financial aid is an important barometer of the ability of local two-year colleges to draw financial support from the community for student aid, which will be critical if these institutions are to help ease the overall cost burden of a four-year degree.

[20] This was the last available period for which the four technical colleges in the region reported the information to IPEDS. In 2007-2008, Moraine Park and MATC reported 13,619 students age 25-64, making up almost 51% of their total enrollment.

Chart 16: Students receiving financial aid* – southeast Wisconsin's community and technical colleges

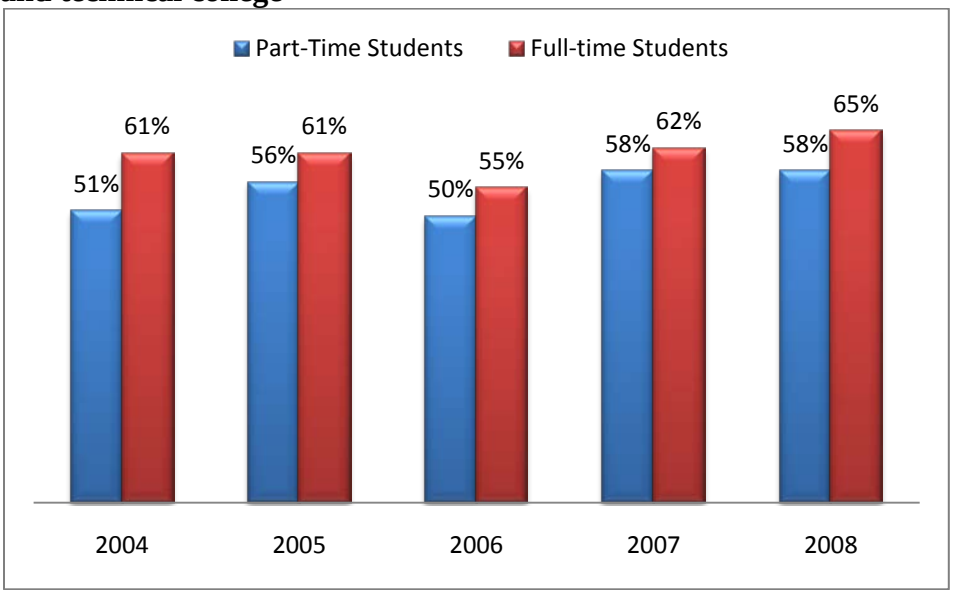


**Full-time, first-time undergraduates receiving financial aid*
Source: IPEDS.

RETENTION

In addition to measuring enrollment, those seeking to increase the number of four-year degree-holders may wish to consider the performance of area technical colleges in *retaining* the students they attract. The flexibility of degree and certificate programs at technical colleges can be a draw for students who often balance competing priorities of work, family and education. That flexibility, however, also can make it difficult to keep students engaged and enrolled. Despite such obstacles, retention of both full- and part-time college students appears to be improving at area technical colleges (**Chart 17**).

Chart 17: Student retention – southeast Wisconsin's community and technical college**

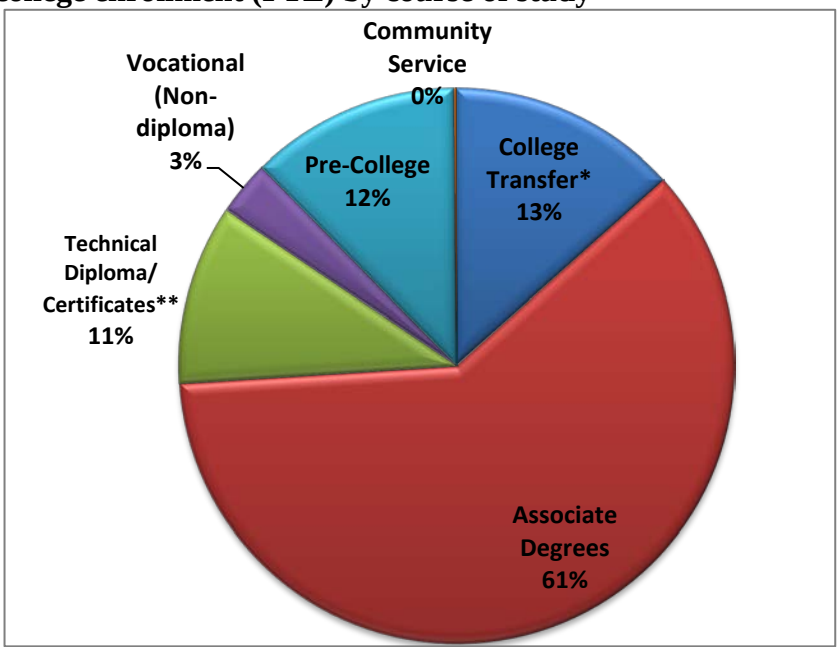


***Measured as the percent of full- or part-time students that enrolled the previous fall that are enrolled in the fall of the current year.*
Source: IPEDS.

COURSE OF STUDY AND TRANSFERS

The majority of students enrolled in Southeast Wisconsin's technical colleges are pursuing associate's degree course work. An additional 15% are enrolled in non-degree programs including non-degree vocational, pre-college (basic education), and community service classes (**Chart 18**).

Chart 18: 2008-2009 southeast Wisconsin community college enrollment (FTE) by course of study



**MATC students enrolled in college transfer curriculum.*
***Includes Technical diplomas and certificates (2-year, 1-year, and short-term)*
Source: Wisconsin Technical College System, Fact Book 2010

The Talent Dividend Initiative has identified increasing college transfers from two-year institutions to four-year institutions as a viable strategy for increasing regional educational attainment. Unfortunately, the picture of college transfers from southeast Wisconsin's technical colleges is incomplete. MATC is the only two-year institution that offers a recognized "college transfer" track to students. Consequently, the percentage of college transfers shown in **Chart 19** is derived only from MATC. While other technical colleges in the region do not offer a specific college transfer program, students may transfer their credits to a four-year institution using existing articulation agreements.

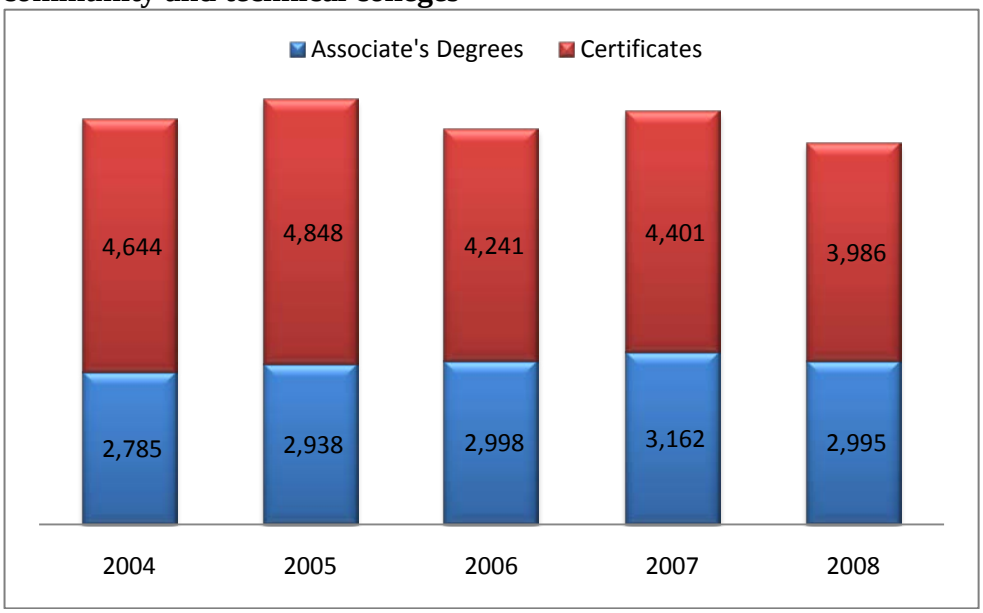
Tracking total transfers from the region's technical colleges is difficult, therefore, given that only MATC and WCTC provide student transfer reports to the Integrated Post-secondary Education Data System, a central source of post-secondary data. However, recently released data from the University of Wisconsin System (UWS) helps flesh out the picture of student transfers within the region and the state. More than 1,200 students (new and re-enrollees) transferred from southeast Wisconsin's technical colleges to UWS schools in 2008-2009. This is a 9.6% increase over 2004-2005.[21] Slightly more than 70% of new transfers from the region's technical colleges stay in the region, choosing to enroll at University of Wisconsin-Milwaukee, UW-Parkside, or UW-Whitewater.

[21] The University of Wisconsin System, "Informational Memorandum: Undergraduate Transfer Students: 2008-09" http://www.uwsa.edu/opar/reports/transfer/index.htm

Because most of the students in the region's technical colleges are not enrolled in college transfer programs, graduation rates are tabulated based on the number of students obtaining an associate's degree or vocational certificate. Total degrees and certificates conferred by the region's community colleges have fallen by 10% since a peak of 7,786 in 2005. Much of the drop is attributable to a reduction in certificate awards (**Chart 19**), which may be a reflection of the region's job market. There has been a modest increase in associate's degrees awarded by the region's technical colleges since 2004, with growth occurring at Moraine Park and WCTC. MATC bestowed 45% of the associate's degrees conveyed by the region's technical colleges in 2008.

It is worth noting that African-American and Hispanic students earned 11.6% and 12.2% more associate's degrees in 2008 than in 2004 (**Table 5**). In 2008, whites accounted for 81% of the associate's degrees awarded, while African-Americans and Hispanics received 9.3% and 4.9% of the awards, respectively.

Chart 19: Degrees and certificates awarded – southeast Wisconsin's community and technical colleges



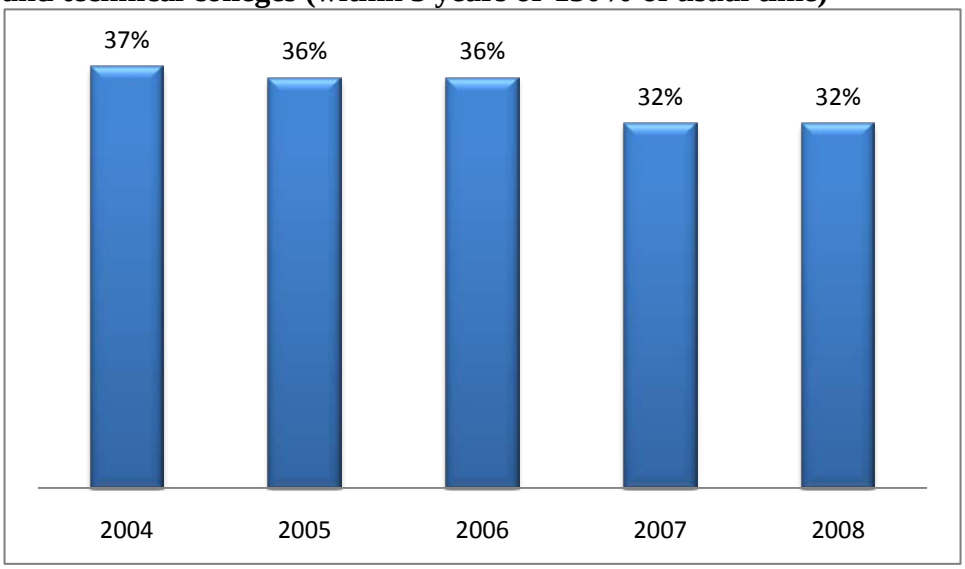
Source: IPEDS

Table 5: Southeast Wisconsin's technical colleges – 2008 degree completion and graduation rates by race and ethnicity

	Associate's Degree Awarded	% Associate's Degree Awarded	2007-2008 % Change Associate's Degree Awarded	2004-2008 % Change Associate's Degree Awarded	2008 Graduation Rates
All Students	**2,995**		**-5.3%**	**7.5%**	**32%**
Whites	2,444	81.6%	-2.9%	7.3%	33%
African-Americans	279	9.3%	-12.5%	11.6%	39%
Hispanics	147	4.9%	-21.8%	12.2%	48%

Source: IPEDS

Chart 20: Graduation rate – southeast Wisconsin's community and technical colleges (within 3 years or 150% of usual time)



Source: IPEDS

Despite the increased *number* of degrees and certificates awarded, because of the increases in enrollment, there has not been an increase in graduation *rates* for the region's two-year institutions. The percentage of first-time, full-time students graduating within three years of enrolling in area community colleges is falling (**Chart 20**).[22] MATC has the lowest graduation rate in the region at 17%. If the graduation rate is coupled with MATC's reported 20% transfer

[22] Graduation rates for 2-year institutions do not provide a complete picture of student success, as it only measures first-time, full-time students entering in a specified year and graduating within 150% of time. The National Governor's Association *Complete to Compete* study notes that IPEDS only accounts for 32% of undergraduates enrolled in two-year public institutions. Graduations of part-time students, which are a substantial portion of the region's technical colleges' student bodies, are not accounted for in current IPEDs graduation calculations. In addition, students who transfer out of an institution to a four-year college may go on to graduate, yet they are not counted in the two-year institution's graduation rate. While policy makers, college administrators and education researchers have discussed creation of a more accurate measure of graduation rates at both 2-year and 4-year institutions, the current graduation measure is widely available and allows comparisons between similar institutions and other metro areas.

rate in 2008, it is clear that more than half of the technical college's full-time students neither graduate nor transfer to a four-year college within three years.

The current measures suggest a substantive leak of students at this point – full-time students are leaving school without a degree of any sort, much less a bachelor's degree. It could be argued that graduation rates are not a critical metric for technical colleges given that many students enroll in classes for specific skills or training without the intent of ever receiving a degree. Still, more research may be warranted to assess the extent of the leak and its importance.

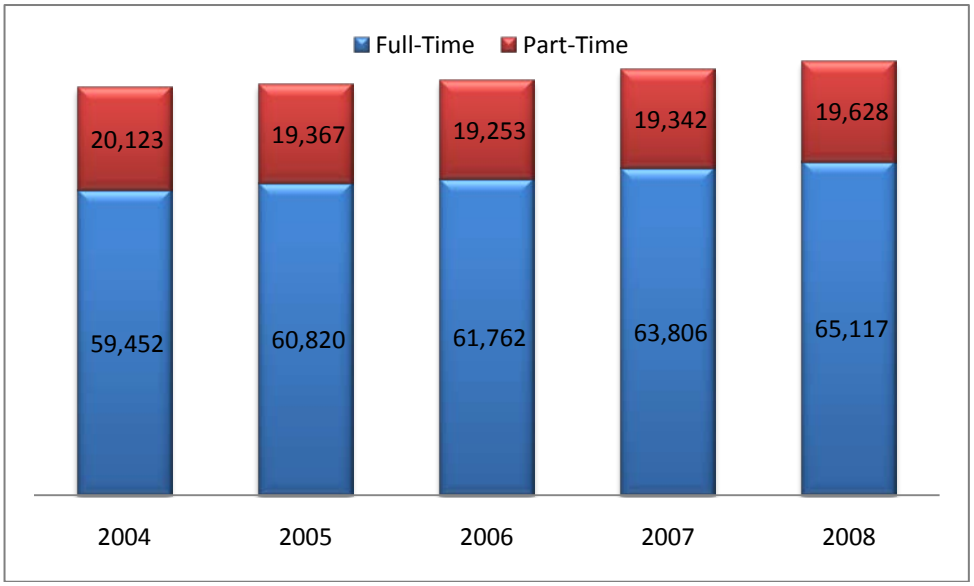
ACCESS, ENROLLMENT, AND SUCCESS – FOUR-YEAR PUBLIC AND PRIVATE UNIVERSITIES

In 2007-2008, the region's 13 four-year public and private nonprofit universities and colleges (see **Appendix**) awarded slightly more than 11,000 bachelor's degrees. Increasing enrollment and retaining the graduates of these four-year college institutions in the seven-county region is imperative to boosting the region's bachelor's degree attainment rates.

Enrollment Trends

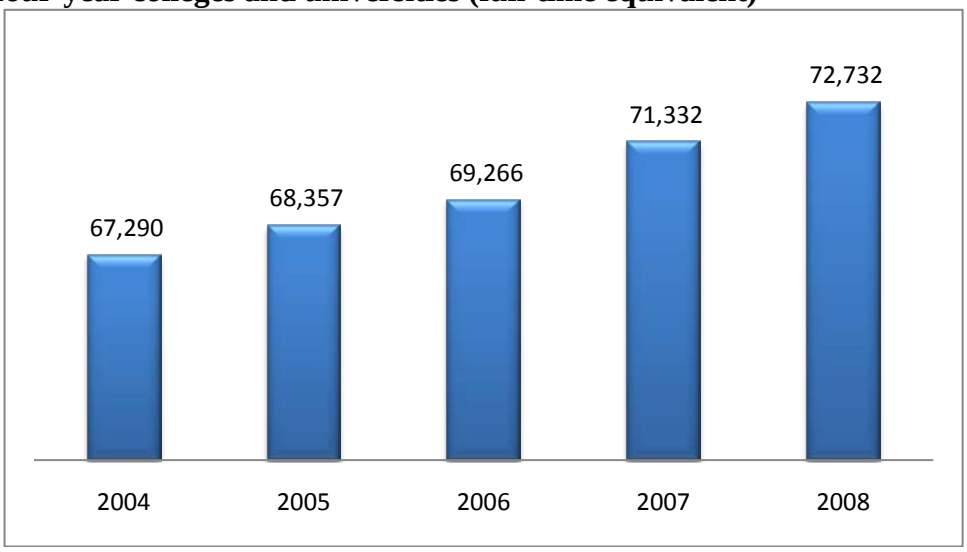
More than 5,000 additional students enrolled in southeast Wisconsin's public and private four-year colleges and universities in 2008 than enrolled in 2004 (**Chart 21**). The growth was driven by a 10% increase in students taking full course loads. As a result, full-time equivalent enrollments increased by 8.1% since 2004 (**Chart 22**).

Chart 21: Southeast Wisconsin's four-year public and private institutions – total enrollment



Source: IPEDS

Chart 22: Total enrollment – southeast Wisconsin's public and private four-year colleges and universities (full-time equivalent)



Source: IPEDS

Full-time enrollments among those attending college for the first time increased just 0.7% at area universities between 2007 and 2008, however – well below the 4% enrollment gain experienced nationally by four-year institutions during the same one-year period (**Table 6**).[23] Review of a five-year trend shows a more robust increase in freshmen enrollment of 9.1%.

As with the two-year institutions, much of the gain came from minority students. Hispanics experienced a significant gain of 26.5%, while freshmen enrollment by African-Americans dropped 4.2% during the period. Overall ethnic representation of students in area four-year institutions has remained constant since 2004. In 2008, 74% of the student population was white, 7% was African-American, 4% was Hispanic and 2% was Asian.

Table 6: Southeast Wisconsin Four-Year Colleges and Universities Enrollment Trends by Race and Ethnicity

	2008 % of Student Enrollment	2007-2008 % Change in First Year, Full-time Enrollments	2004-2008 % Change in First Year, Full-Time Enrollments
All Students		**0.7%**	**9.1%**
Whites	74%	-2.9%	5.8%
African-Americans	7%	-5.4%	-4.2%
Hispanics	4%	8.6%	26.5%

Source: IPEDS

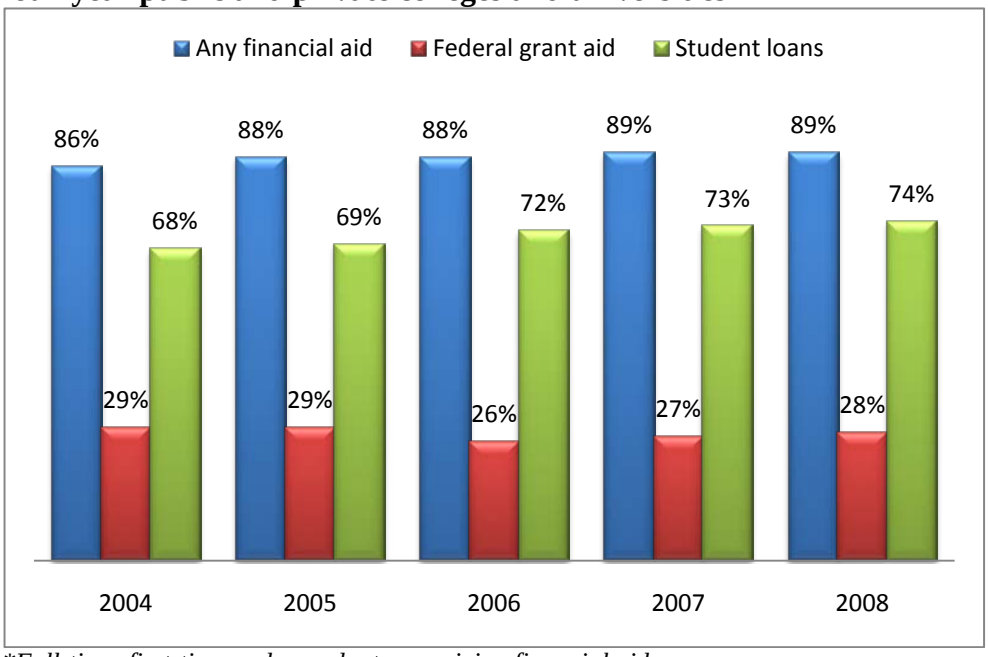
[23] Pew Research Center.

The typical student pursuing a four-year degree in the region is between the ages of 18 and 24. Still, older undergraduates (age 25-64) are an important segment of the student body, accounting for 16% of enrollment in the region in 2007. Just over half of older students are enrolled part-time. Many regional colleges recognize the value of serving "non-traditional" students. Cardinal Stritch University hosts the largest portion of students age 25-64 at 73%, but the age 25-64 undergraduate populations of several other institutions in the region (including Concordia University, Alverno College, Mount Mary College and UW-Parkside) exceed 20%.

ACCESS TRENDS

College affordability is an important factor for student recruitment and retention. While four-year institutions in the region have a reputation of providing good value, the great majority of students enrolled in southeast Wisconsin's four-year colleges receive some form of financial assistance. Students in southeast Wisconsin are turning to student loans in increasing numbers to pay for a college education (**Chart 23**). Federal grant aid distributions, including Pell grants, which have remained flat since 2004, have provided little relief for students working to pay for college.

Chart 23: Students receiving financial aid* – southeast Wisconsin's four-year public and private colleges and universities

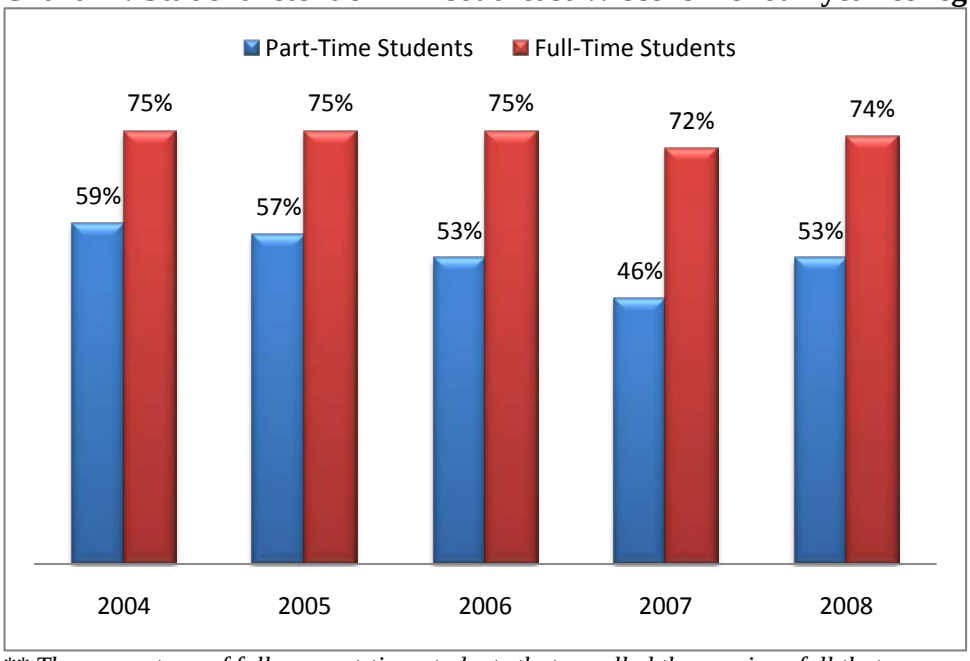


**Full-time, first-time undergraduates receiving financial aid*
Source: IPEDS.

RETENTION

The percentage of full-time students who remained at area universities after enrolling the previous fall remained fairly constant between 2004 and 2008 (**Chart 24**). Retention rates of part-time students, however, fell six percentage points in that time period. The leakage of part-time students from the pipeline is seen at all higher education levels and indicates that strategies to improve educational attainment among adults may see slow progress unless these retention trends can be reversed.

Chart 24: Student retention – southeast Wisconsin's four-year colleges and universities**

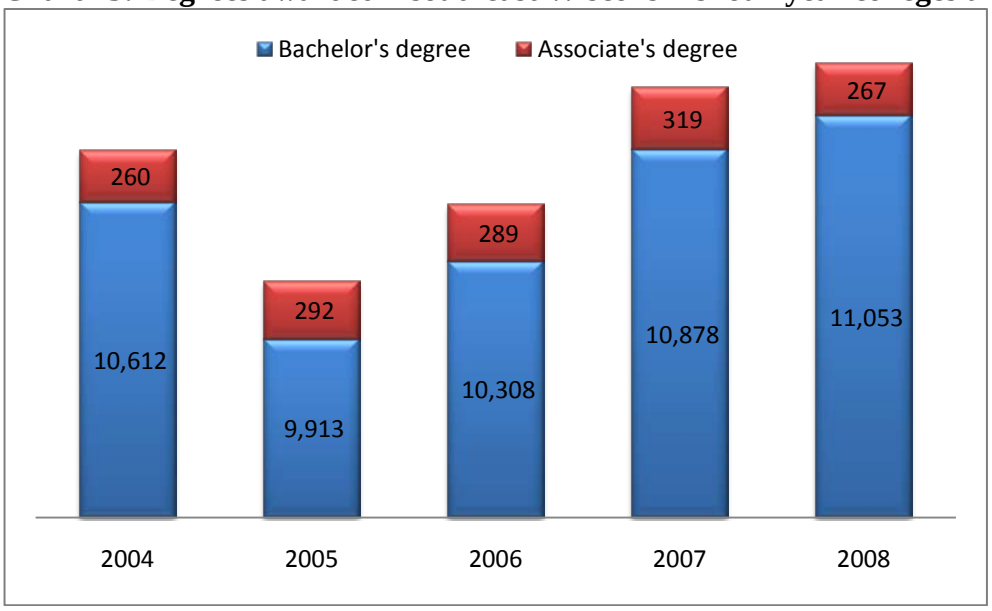


*** The percentage of full- or part-time students that enrolled the previous fall that are enrolled in the fall of the current year.*
Source: IPEDS.

DEGREES AND GRADUATION TRENDS

The number of four-year bachelor's degrees awarded in the region topped 11,000 in 2008, increasing 4.2% since 2004 and 11.5% since 2005 (**Chart 25**).

Chart 25: Degrees awarded – southeast Wisconsin's four-year colleges and universities

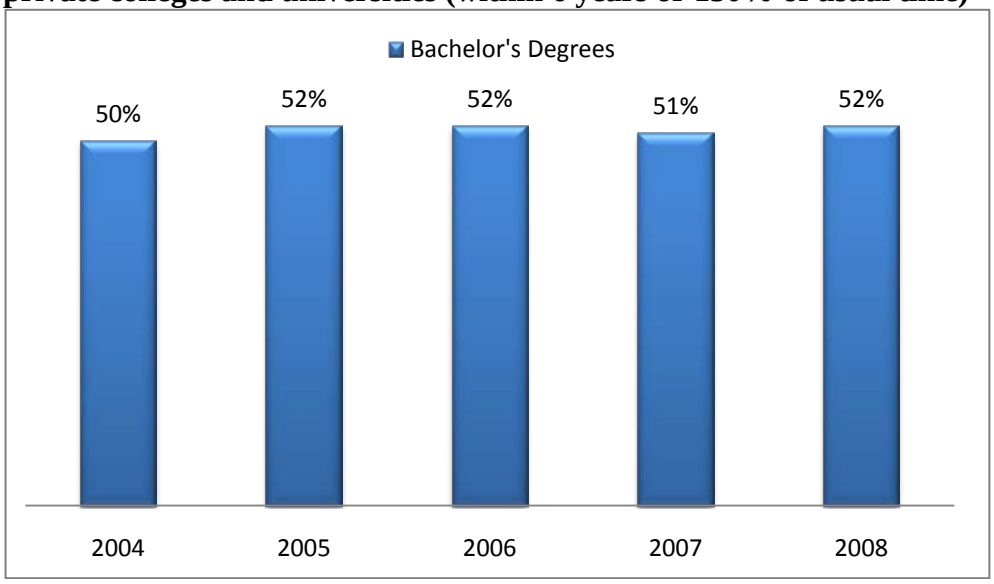


Source: IPEDS.

The graduation rate among Southeast Wisconsin's four-year institutions has remained stable over the last five years (**Chart 26**). The Milwaukee MSA's graduation rate of 53% is higher than the regional rate and places the MSA 29th out of the 51 largest MSAs.[24]

[24] Graduation rates refer to the number of first-time full-time students entering in the same cohort year who complete their degree within 150% of expected time or 6-years after enrolling in a 4-year institution. As noted in the discussion of graduation rates of 2-year technical colleges on page 26, current graduation rate statistics collected by IPEDs do not fully capture student success. It does not include part-time students or students who transfer in to a college from another institution.

Chart 26: Graduation Rate – southeast Wisconsin's four-year public and private colleges and universities (within 6 years or 150% of usual time)



Source: IPEDS.

Success in attaining degrees varies by ethnic group, with white students having the highest graduation rates, followed by Hispanic and Asian students (**Table 7**). In comparison, graduation rates among African-American students remain quite low. While graduation rates of first-time, full-time students among various ethnic groups showed little improvement in the region during the 2004-2008 timeframe, bachelor's degree completions increased 5.6% for African-American students and 13% for Hispanic students since 2004.

Table 7: Southeast Wisconsin's four-year colleges – 2008 degree completion and graduation rates by race and ethnicity

	Bachelor's Degrees Awarded	% Bachelor's Degrees Awarded	2007-2008 % Change Bachelor's Degrees Awarded	2004-2008 % Change Bachelor's Degrees Awarded	2008 Graduation Rate
All Students	**11,053**		**1.6%**	**4.2%**	**52%**
Whites	9,332	84.4%	1.2%	4.0%	56%
African-Americans	581	5.3%	11.7%	5.6%	34%
Hispanics	383	3.5%	1.9%	13.0%	48%
Asian/Pacific Islander	321	2.9%	1.3%	12.6%	44%

Source: IPEDS

Achieving the one percentage point increase in bachelor's degree attainment in the region prescribed by the Talent Dividend Initiative will require strategies at the region's four-year colleges and universities to increase student retention and degree completions. If the Talent Dividend Initiative goal were to be met solely through new graduates from the region's four-year

institutions, bachelor's degree awards would need to increase at an annual rate of 4.5% through 2013 to achieve the 13,146 new graduates needed.

It is also worth noting that increasing bachelor's degrees awarded by area institutions only will help increase regional degree attainment levels to the extent that the graduates elect to remain in southeast Wisconsin. In addition to focusing on increasing bachelor's degrees awarded, therefore, complimentary strategies will be needed to encourage students to remain in the region.

MEASURING REGIONAL SUCCESS

Increasing the number of adults in southeast Wisconsin who possess four-year college degrees holds considerable promise as a strategy for improving the overall economic health of the region's residents and businesses. For residents, higher educational levels may support increased job and financial opportunities and help boost educational success of future generations. For the region's businesses, a better educated regional workforce may help support a more dynamic business climate that can spur growth among the region's current businesses, stimulate new business development, and attract businesses seeking to relocate.

The metrics presented in this report highlight several opportunity points along the education pipeline for boosting attainment, some of which the Talent Dividend Initiative is addressing with near-term strategies, including:

- Developing college going behaviors among high school students.
- Re-engaging adults with some college, but less than a four-year degree.
- Increasing student transfers between two-year and four-year colleges and universities.
- Improving retention rates of students enrolled at two-year and four-year institutions.

Additional strategies that flow from the metrics identified in this report are summarized below in **Diagram 2**. Many of these strategies, particularly those focused on the front end of the education pipeline, reflect longer-term strategies needed to boost educational attainment. To implement these strategies, the region's business, education, economic development, workforce development, and civic leaders must make a commitment that extends beyond 2013. The metrics presented here can be used to measure the region's progress at critical transition points for children, students, and adults moving through the region's educational pipeline.

As both near- and long-term strategies are developed, particular focus may need to be paid to certain types of students. At all points in the pipeline, minority students and those who would be among the first in their families to attend college offer greater opportunity to improve regional attainment measures. Indeed, those students, while currently demonstrating lower attainment rates, also have increasing enrollment rates. Older adults also offer an opportunity to increase attainment at the latter end of the pipeline.

Thoughtful consideration also needs to be paid to the issues that arise once the pipeline is producing greater numbers of college graduates. Will the job market's demand for college graduates meet the supply? Is there opportunity for advancement in the market? Is the job market supported by a region that offers a quality of life rich in cultural, recreational and educational opportunities, in a clean and safe environment? Without affirmative answers to those questions, there is a risk that a new, high-capacity educational pipeline will have only limited success in improving the region's overall economic health and productivity.

Diagram 2: Strategies for Increasing Capacity along the Educational Pipeline

CHILD DEVELOPMENT	EARLY LEARNING	SCHOOLING	POST-SECONDARY
Birth – 2: Mitigate environmental barriers to proper brain development, such as poverty, lack of medical care, neglect and abuse.	**Ages 3-5:** Improve access to high quality early childhood education.	**Ages 6-18:** Remove barriers and/or provide incentives to increase attendance rates; improve access to Advance Placement opportunities; remove cost barriers to ACT preparation and examination. In addition, provide better information earlier on college requirements and application process, and bolster supportive transition programs leading into freshman year.	**Post-secondary:** Improve understanding of transfers from two- to four-year institutions so as to tailor strategies; focus on improving college retention among minority and first-generation college students; re-engage adults with some college credits to finish with a degree by capitalizing on the success of local 4-year institutions serving non-traditional students.

SUMMARY OF EDUCATION METRICS IN SOUTHEAST WISCONSIN

	Current Data	Regional Trend
Regional overview		
Population	1,955,900	↑
4-Year Bachelor College Attainment (25-64 year olds)	28.7%	↑
Ensuring children are ready to learn		
Children enrolled in early childhood programs	69,400	↑
Children in household where parent has bachelors or higher (Milwaukee CPS)	16.0%	↑
Children eligible for free or reduced lunch	37.7%	↑
Food stamp participation (avg. monthly participation)	262,326	↑
Juvenile arrests	35,267	↓
Preparing K-12 students for college success		
Attendance rates (all grades, public school districts)	93.2%	↓
Avg. ACT composite score	22.8	↑
AP exams passed as a % of enrollment	12.4%	↑
Public high school graduates	22,097	n.a.
Private high school graduates	2,954	⟺
Bridges to college		
Post H.S. graduation plan to attend 4-year college	54.5%	n.a.
H.S. completions (MSA)	77.0%	n.a.
19 year-olds with high school diploma (MSA)	85.9%	n.a.
18-24 enrolled in college (MSA)	46.9%	n.a.
Pre-college programs	22	n.a.
Community and technical colleges		
Total enrollment (unduplicated headcount)	41,773	↑
Enrollment (full-time equivalent)	21,518	↑
% of first-time students receiving a**ny** grant in aid	60%	↑
Retention rates (full-time students)	65%	↑

	Current Data	Regional Trend
Retention rates (part-time students)	58%	↑
Students pursuing associate's degree	61%	n.a.
Transfers from region's technical colleges to UW system	1,213	↑
Associate's degrees awarded	2,995	↑
Graduation within 150% of time	32%	↓
Public and private 4-year colleges and universities		
Total enrollment (unduplicated headcount)	84,745	↑
Enrollment (full-time equivalent)	72,732	↑
% of first-time students receiving **any** grant in aid	89%	↔
Retention rates (full-time students)	74%	↔
Bachelor's degrees awarded	11,053	↑
Graduation within 150% of time	52%	↔

APPENDIX – SOUTHEAST WISCONSIN'S PUBLIC AND NONPROFIT COLLEGES AND UNIVERSITIES

TECHNICAL COLLEGES

Gateway Technical College

Milwaukee Area Technical College

Moraine Park Technical College

Waukesha County Technical College

UNIVERSITY OF WISCONSIN TWO-YEAR COLLEGES (NOT INCLUDED IN ANALYSIS)

UW-Washington County

UW-Waukesha

FOUR-YEAR INSTITUTIONS

Alverno College

Cardinal Stritch University

Carroll University

Carthage College

Concordia University

Marquette University

Milwaukee Institute of Art Design

Milwaukee School of Engineering

Mount Mary College

Wisconsin Lutheran College

University of Wisconsin-Milwaukee

University of Wisconsin-Parkside

University of Wisconsin-Whitewater