

EXECUTIVE SUMMARY

TOWARD COLLEGE SUCCESS FOR WORKING ADULTS

The Pipeline to Credentials in the Wisconsin Technical College System

Workers increasingly rely on education – specifically college credentials – to get to decent jobs. Indeed, research suggests that students need to complete a year’s worth of college credits and earn a credential to get good wage outcomes from education.¹ Furthermore, projections suggest that more than half of Wisconsin’s jobs in 2016 will require more than a high school education but less than a four-year college degree.²

The labor force of 2016 will be dominated by adults who are working today,³ and many of these workers do not possess a postsecondary credential. Providing these workers with reliable routes to college credentials will be key to Wisconsin’s economic success.⁴ This pipeline data study is the first longitudinal analysis to follow the progress of working-age basic-skills students through the Wisconsin Technical College System (WTCS) over a multi-year period,⁵ provides a picture of the educational trajectory of low-skill adults in the WTCS, and makes suggestions for innovations and strategies to support college success for adult students.

The study population (N=152,285) consisted of seven cohorts (2000-2006) of first-time WTCS students between 25 and 54 years of age⁶ and who had completed not more than a high school degree (or equivalent) at the time of their first enrollment in a postsecondary (PS), Adult Basic Education (ABE), or English Language Learning (ELL) course at a technical college.⁷ Students in each cohort were followed for a five-year period⁸ following enrollment. In performing the analysis, we combined all seven cohorts into one population, thus increasing the number of cases so we could perform the full analysis for subgroups.⁹ Following Prince and Jenkins,¹⁰ we assigned each student to an ELL group (N=20,923), one of three ABE groups – Beginning, Intermediate, or Adult-Secondary-Education level – (N=44,403), a Developmental/ Remedial education group¹¹ (N=7,310), or a Postsecondary group (N=79,649), depending on the lowest level of course work the student took during the study period.¹²

FINDINGS

Are WTCS adult students moving on to and persisting in postsecondary studies? We first looked at students’ chances of reaching three milestones along the technical college pipeline: attempting at least three college level credits, enrolling in a qualifying college program (a program of at least one year in length or an apprenticeship program), and completing a qualifying college program.¹³

ATTAINMENT OF POSTSECONDARY MILESTONES

	<i>ELL</i>	<i>ABE</i>	<i>Dev/ Rem*</i>	<i>Post- secondary</i>
Overall number of students	20,923	44,403	7,310	79,649
Average time (years) that students remained in the system	2.0	2.1	2.6	1.9
Percent who enrolled in a postsecondary:				
Course (3 or more credits)	4.2	25.7	73.7	70.1
Qualifying program	1.6	18.6	65.1	30.3
and who completed a program	0.6	7.2	29.5	11.4

Note: * The WTCS course labeling structure includes other categories of courses that deal with the remediation needs of entering students. Recent figures indicate that the WTCS has delivered pre-program math, reading, and/or writing instruction to 13,970 (2009), 17,562 (2010), and 22,158 (2011) students respectively.

This paper summarizes:

Toward College Success for Working Adults: The Pipeline to Credentials in the Wisconsin Technical College System

It was written by Jayson Chung (Wisconsin Department of Public Instruction, formerly Wisconsin Technical College System), Matías Cociña (COWS), and Laura Dresser (COWS). The full report is available at www.cows.org/pdf/rp-CollegeSuccess.pdf

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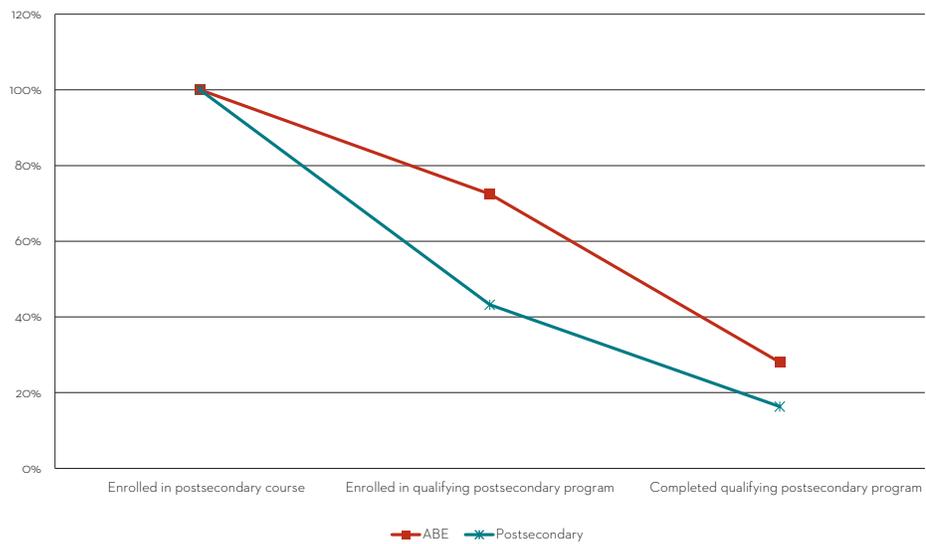
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Seventy percent of the Postsecondary students attempted at least three college level credits (a typical course in the semester-based WTCS). Only about 30 percent of all students in this group enrolled in a qualifying program during the study period, and 11 percent completed a qualifying program.¹⁴ Developmental/Remedial students reached the three-credits level at about the same rate as Postsecondary students and had higher rates of enrolling in and completing postsecondary programs. ELL students were substantially less likely to reach any milestone, including the first step of attempting at least three postsecondary credits.

Students in the ABE group reached the milestones at lower rates than Postsecondary students, but even so, their attainment of postsecondary milestones was significant. Almost 20 percent of ABE students enrolled in a program, compared to 30 percent for Postsecondary students. Seven percent completed a program, compared to 11 percent for Postsecondary students. The strength of the ABE group’s performance surprised most observers with whom we discussed these data.

We also wanted to home in on just those students in our groups who actually crossed the postsecondary threshold. *Of the students who attempted at least one college course (all of the Postsecondary students but portions of the other groups), ABE and Developmental/Remedial students did better than Postsecondary students in achieving key milestones.*

**FROM TAKING A POSTSECONDARY COURSE TO COMPLETING A PROGRAM:
ADULT BASIC EDUCATION VERSUS POSTSECONDARY STUDENTS**



For example, the figure shows that of ABE students who took at least one postsecondary course, more than 72 percent enrolled in a postsecondary program, and 28 percent actually completed a program. For Postsecondary students who enrolled in a postsecondary course, just 43 percent enrolled in a program and 16 percent completed a program.

When we turned our attention to credit accumulation, we found that students from the “pre-college” groups – that is, ELL, ABE, and Developmental/Remedial – were more likely to successfully complete at least three credits than Postsecondary students. ELL students were fairly close to Postsecondary students, while ABE as well as Developmental/Remedial students were at least a third more likely to complete three or more credits. This performance gap increased for higher credits-earned thresholds. ABE and Developmental/Remedial students were roughly three times as likely as Postsecondary students to earn at least 24 credits – a full year’s worth of college study.

We narrowed our focus even further to zero in on the success of just those students who enrolled in programs. When all types of programs were taken together, *completion rates¹⁵ were basically the same for all groups of students*, with Developmental/Remedial students slightly outperforming the other three groups. Postsecondary students did not outperform students in the pre-college

groups. For all groups, program completion rates were highest for one-year technical diplomas and apprenticeship programs. Rates of completion were lower for two-year technical diplomas and applied associate degrees.

PROGRAM COMPLETION RATES BY PROGRAM TYPE

	<i>ELL</i>	<i>ABE</i>	<i>Dev/Rem</i>	<i>Postsecondary</i>
Percent of students who enrolled in a program of the type indicated below, that completed a program of that type				
A program of any type	37.1%	38.6%	45.4%	37.7%
Apprenticeship program	30.8	46.5	53.1	40.9
One-year technical diploma	47.4	44.8	53.5	51.6
Two-year technical diploma	22.2	25.3	33.8	37.9
Applied associate degree	33.3	29.9	32.0	32.0

Finally, we analyzed the rate at which program students successfully completed the credits that they attempted. The table below shows that the program students who took the highest number of credits during the study period were the most successful at passing their credits. Looking at the three topmost levels of attempted credits,¹⁶ we see a clear upward trend of passing rates as students took more credits.

CREDIT-PASS RATES FOR PROGRAM STUDENTS BY NUMBER OF POSTSECONDARY CREDITS TAKEN

	<i>ELL</i>	<i>ABE</i>	<i>Dev/Rem</i>	<i>Postsecondary</i>
Credit-pass rate, for students who took:				
more than 0 and less than 3 credits	50.0%	66.7%	64.6%	69.1%
at least 3 and less than 6 credits	61.3	58.8	55.4	71.1
at least 6 and less than 12 credits	67.7	50.8	55.4	68.3
at least 12 and less than 24 credits	84.5	61.5	64.4	70.7
at least 24 credits	90.8	83.2	85.2	85.1

IMPLICATIONS

This project marks the first time that WTCS data has been analyzed with such careful focus on working-age adult students (ages 25-54). Probably the most surprising and significant result is the success of ABE students, who we find are completing degrees at least as often as other students. Less surprising, perhaps, but significant as well, is the apparent importance of program enrollment and students' accumulation of credits on program completion. These analyses reinforce the importance of adult students and the worth of investing attention and resources in Career Pathways designed to support the advancement and success of working adults.

ABE is a Feeder for Degree Programs — Embrace It

The study indicates that colleges' ABE services are a significant feeder for their occupational programs. While the rate at which ABE students transitioning to postsecondary studies could and should be improved, adults already use ABE in greater numbers than they use Developmental and Remedial instruction as a way to prepare for college success. ABE students who become program students tend to move into applied associate degree programs at higher rates, compared to program students who don't have an ABE

background. Critically, ABE students are at least as successful at completing their programs as other students. These ABE students tend to accumulate more college credits than their Postsecondary counterparts, probably due to their preference for associate degree programs. This result may be surprising, but it should serve as a reminder that ABE is a feeder into technical college programs. Strengthening the routes from ABE into campus programs can help make this an even more effective route to academic success.

Success Breeds Success and the Importance of Program Enrollment

There is no single event in the student trajectory that guarantees a route to success, but it is clear that success breeds success. Students who took a full year's worth of credits outperform those who took between six and 23 credits. This corroborates the view of many on campuses that success in an early stretch of credits is critical to establishing a student's educational momentum. Further, the analysis shows that lower-skill adult students do not build intensity in their college experience unless they are in a program. Along the pipeline to success, and across students groups, program-enrolled students do better than those who never enroll. These results may seem obvious (after all, you can't complete a program if you never enroll), but it is important to think precisely about how students' college experiences change as milestones are accumulated and how a college might play a more active role in getting adult students into programs. Passing courses early in their studies builds confidence and enables students to develop a self-image as a potential college graduate. Enrolling in programs can integrate students into a community of students, faculty, and advisors that helps them stay on course through completion.

Putting These Results to Use: Continuing Innovation and Investment in Bridges and Pathways

This system-wide pipeline analysis provides some new perspectives on low-skill, working-age adults attending technical colleges. As with other studies using highly aggregated data, it is a starting point for more detailed questions and further investigation. Improving student success for adults, especially for those who need basic skills, will come from the knowledge and collaboration of college instructors and staff. Answers will take the form of improved instructional and student support strategies to help more low-skill adults set higher goals that include earning a credential and make solid connections with college programs.

Wisconsin's RISE work on Career Pathways is a prime example of how technical colleges, along with workforce development partners, are responding to the challenges made clear by these data. It also exemplifies the new partnership between basic skills and college programs that can dramatically improve the rates of college attainment for adult learners. This study may help colleges identify groups of adult students who have not been on programs' "radar" in terms of targeted recruitment and retention efforts. After analyzing this new data, we are convinced that colleges may produce a new generation of successful college-goers from within their walls.

ENDNOTES

- 1 Echoes of this “tipping point” perspective were heard in President Obama’s “college for all” call in 2009, when he urged every American to commit to at least one year or more of higher education or career training (www.insidehighered.com/news/2009/02/25/obama).
- 2 *Wisconsin’s Forgotten Middle-Skill Jobs: Meeting the Demands of a 21st-Century Economy*, National Skills Coalition. Available at: www.nationalskillscoalition.org/assets/reports-/skills2compete_forgottenjobs_wi_2009-10.pdf, p.11
- 3 Updated from *Wisconsin’s Forgotten Middle-Skill Jobs: Meeting the Demands of a 21st-Century Economy*, National Skills Coalition. Available at: www.nationalskillscoalition.org/assets/reports-/skills2compete_forgottenjobs_wi_2009-10.pdf, p. 21, using population projections from the Demographic Services Center, Wisconsin Department of Administration.
- 4 *Building Bridges in Wisconsin: Connecting Working Adults with College Credentials and Career Advancement*. Valentine, Jessa Lewis, and Pagac, Adrienne. 2010. Available at: www.cows.org/about_publications_detail.asp?id=506
- 5 Prior to this, measuring postsecondary transitions, as performed for the Adult Education and Family Literacy Act’s National Reporting System (NRS), stopped after seeing whether basic-skills students took a college course or entered a program. A complementary limitation affects WTCS’s postsecondary performance measurement systems: while they do follow progress in college study over time, they do not look backward to trace what students were doing (e.g., enrolling in basic skills) before they became part of a postsecondary cohort. *A Short Guide to “Tipping Point” Analyses of Community College Student Labor Market Outcomes*, Davis Jenkins, Community College Research Center, 2008. Available at: ccrc.tc.columbia.edu/Publication.asp?uid=600
- 6 We have also collected and analyzed data for students 18-24 years old. Data for this age group is provided in Appendix 1 of the full report.
- 7 The WTCS is the state system responsible for Adult Basic Education (ABE) and English Language Learning (ELL) as well as postsecondary (PS) occupational education and training. This longitudinal study was largely made feasible by the fact that the WTCS has a unified data system for all levels of students.
- 8 Most students leave the system before five years. For the population under study, the median time within the system is one year, while the mean time is 1.9 years. More than 75 percent of students in the age and education group stay in the system for two years or less. More than 80 percent stay three years or less, and more than 90 percent of students stay in the system for four years or less.
- 9 Before pooling the data, we looked at consistency across cohorts, and the results for individual cohorts did not differ markedly.
- 10 *A Short Guide to “Tipping Point” Analyses of Community College Student Labor Market Outcomes*, Davis Jenkins, Community College Research Center, 2008. Available at: ccrc.tc.columbia.edu/Publication.asp?uid=600
- 11 In Wisconsin’s technical colleges, Developmental and Remedial instruction is provided by the ABE program.
- 12 In this report, for simplicity, the three levels of ABE groups are combined into one group, and the Remedial education group, which was by far the smallest in size, is pooled together with the Developmental group. The descriptive statistics for the different groups can be found in the full report. As a summary, students in the ELL group tended to be considerably younger, while students in the Postsecondary group tended to be older; a high proportion of students in the Developmental and Postsecondary groups had completed high school prior to first enrolling at a technical college; and groups differed dramatically in their racial/ethnic composition, with non-white students being over-represented in the ELL and ABE groups, while the Postsecondary group mirrored the state’s racial and ethnic composition.
- 13 Because of our overriding interest in looking at students’ progress toward tipping-point success, in this analysis when we talk about program enrollments and program completions, we are only counting state-approved technical college programs of one year’s length or more (i.e., one- and two-year technical diplomas and associate degrees) and apprenticeship programs. We purposely set aside data about technical diploma programs of less than one year in length. More specifically, we counted students whose only enrolled programs were less-than-one-year technical diploma programs as being enrolled in course work in the system (the denominator in our ratios) but not as entering or completing a qualifying program. A set of tables describing this population is provided in Appendix 2 of the full report. These tables do not include the many local, short-term certificates that colleges offer and are not approved or tracked by the WTCS.
- 14 This measure describes the “conversion” of course takers into program completers and thus bears only limited relationship to the standard program completion measure used in the WTCS’s Perkins postsecondary performance report cards. The latter only tracks students who are in a program and have already earned at least 12 college credits. Also, the population for the study at hand is restricted to older students with limited prior education. For these reasons, the Perkins measure returns much higher transition values.
- 15 While the program completion measure described here only looks at program enrollees, it still differs from the Perkins program completion indicator in the other ways described in Endnote 14.
- 16 The vast majority (93 percent) of enrolled students represented in the table attempted at least six credits.