
Navigating Central Ohio's College & Career Readiness System



Districts, schools and institutions of higher education fostering college and career readiness, participation and success

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September 2015

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Preface

Navigating Central Ohio's College and Career Readiness System builds on a college readiness assets report first released by the Central Ohio College and Career Success Network in April 2012. That report – *Mapping Central Ohio's College Readiness Assets* – explored the meaning of “college readiness” and examined regional and state initiatives designed to improve the college and career readiness of area students. It concluded by observing that any effective college and career readiness initiative must:

1. reflect an understanding that a number of factors influence student preparation for and eventual successful participation in postsecondary education;
2. acknowledge the diversity of the education experience, allowing for and encouraging flexible learning as a tool for meeting higher standards; and
3. be grounded in an understanding that helping more students complete postsecondary programs ultimately requires the building of a true “system” that takes Central Ohio beyond its “program rich, systems poor” approach.

This new report updates the 2012 document. Why is it needed? Most importantly, Ohio's education landscape has seen significant changes during the past three years.

- A newly developed *College Credit Plus* program – replacing Ohio's Post-Secondary Enrollment Options program (PSEO) and alternative dual enrollment programs – promises to be, when operational in the 2015-16 school year, a vital and effective component of the state's integrated strategies to enhance students' college and career readiness and postsecondary success. Through this program, eligible students will be able to take a course and earn high school and college credit that appears on both their high school and college transcripts.
- Since 2012, Ohio's high school curriculum has been strengthened to ensure that students graduate high school having successfully completed relevant and more rigorous coursework. Implementation of Ohio's new learning standards is underway and new high school end-of-course exams have been developed to measure subject matter mastery. These new exams and other independent assessments also are being used to measure readiness for college and careers.¹
- At the postsecondary level, the state has worked with institutions of higher education on multiple strategies targeted at increasing the number of students who earn a degree or professional certificate. Colleges and universities have come together to develop Remediation Free Standards and performance-based funding formulas. And the state has worked with higher education institutions to reevaluate the effectiveness of developmental education programs.

¹ House Bill 487 updated Ohio's graduation requirements – and directed the State Board of Education to establish new assessment options – to ensure that all students are ready for success in college and work. Beginning with the class of 2018 (9th graders in fall 2014) students must complete Ohio's course requirements and take seven end-of-course exams. Additionally, every student will have the opportunity to take a nationally-recognized college admission exam free-of-charge in the 11th grade. Students must satisfy graduation requirements by either accumulating the necessary points on end-of-course exams, scoring at the “remediation-free” level on a college-admissions test (such as ACT or SAT), or earning both an industry-recognized credential or a license issued by the state for practice in a vocation and a “workforce readiness and employability” score on a job skills assessment (such as WorkKeys).

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- Since 2012, Ohio's institutions of higher education have complied with statutory requirements to assemble planned pathways that will allow students to complete a traditional bachelor's degree in three years, with many of the plans relying on students' attainment of college credits while in high school. These same public colleges and universities are in the process of developing statutorily required campus completion plans that will outline each institution's strategies and performance goals for increasing student completion of a degree or professional certificate.
 - The Ohio Department of Higher Education has made Prior Learning Assessment (PLA) a priority by recognizing and embracing the college-level knowledge and skills that students have acquired outside the collegiate experience. To help these students earn postsecondary certificates and degrees, and to make the state more competitive in a global economy where knowledge and skills are highly prized and rewarded, Ohio's universities, colleges and adult career-technical centers are working to promote the awarding of credit to students for prior learning based on transparent, consistent, rigorous statewide standards.

These are significant changes that reflect Ohio's determination to build a more effective education system that is well administered and fully utilized. In this rapidly changing environment, *Navigating Central Ohio's College and Career Readiness System* offers guidance to districts, schools and institutions of higher education that are determined to better prepare their students for participation and success at the postsecondary level and in the workforce. Beyond clarifying the requirements and expectations of the new *College Credit Plus* program, it identifies some of Central Ohio's most promising, emerging college and career readiness practices and advances recommendations to maximize students' readiness for college and careers.

This report recommends actions that can be taken to maximize the benefits of *College Credit Plus* – and more broadly, build Central Ohio's capacity to prepare its young people to participate and succeed in college and careers. It should be acknowledged at the outset that while the *College Credit Plus* agenda, with its emphasis on accelerated learning, is an important opportunity for Central Ohio students, ***it alone is not sufficient to substantially change the postsecondary participation and success rate.*** That kind of transformation will require actions on a much broader scale. For example, it will necessitate building students' college and career awareness beginning in the middle-school grades, strengthening the alignment of K-12 and postsecondary expectations and changing century-old structures. In addition, it will require improved learning support services to students who need them and the creation of "bridge" programs that make the transition from high school to college and careers seamless as it nurtures students' aspiration to learn.

Why college matters

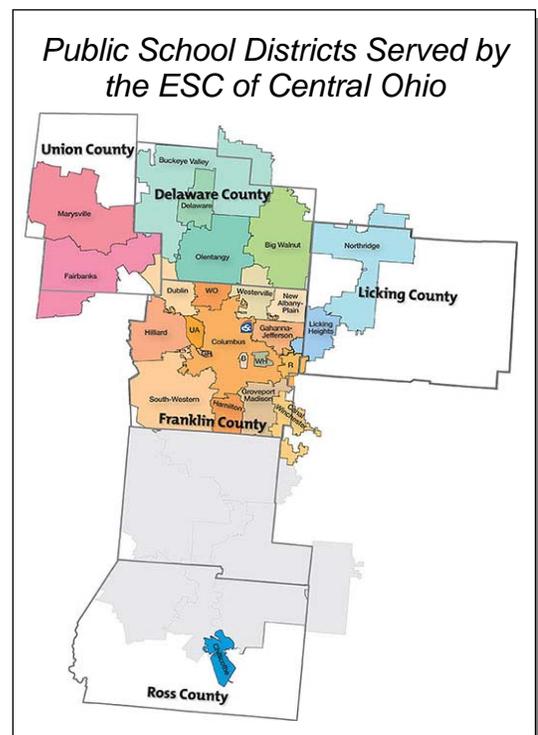
Public schools in Ohio and across the nation today are doing a better job of educating an increasingly diverse body of students than ever before. But they are not doing well enough.

Why have we fallen short? It surely isn't because we haven't tried. During the last 60 years, school reform in the U.S. has been characterized by three waves of activity. Beginning in the 1950s, a number of federal programs were enacted – first to fund **mathematics and science education** as part of the nation's "race for space," and later to improve **educational equity** for minority children, poor children and children with disabilities. Later, the **school choice movement** gave parents more options for the education of their children based on a belief that market forces would stamp out ineffective schools and improve the overall quality of education.

A third wave of education improvement, which emerged in the late 1980s, shifted attention to **standards-based reform** designed to identify what students should know and be able to do at specific grade levels – and then to measure through a variety of high-stakes tests and assessments whether they were mastering that content. During the past quarter century, test-driven accountability has become a cornerstone of this wave of reform as consequences have been applied to schools and districts whose students don't measure up.

Today, a new era of education improvement – with an emphasis on personalized, competency-based learning – is emerging. Despite decades of reform, the harsh reality is that far too many young people still are not being prepared for success in the classroom, careers and life. The evidence is clear – in dropout rates that are dangerously high, in high unemployment rates for teens and young adults, in the assessment of employers who cannot find skilled workers to fill waiting jobs, and in the fact that less than one-third of young people earn a bachelor's degree by age 27.

This situation would be disturbing at any time, but for the United States it is especially alarming today as the nation's economic dominance in the world is being challenged. Based on their extensive analysis of historical data, economists Claudia Goldin and Lawrence Katz assert that mass education – most importantly, investments in education that began in the 19th century – has long been the competitive advantage that has allowed the U.S. to build wealth while reducing income inequality.



In *The Race Between Education and Technology*, professors Goldin and Katz write, “The nation that invested the most in education was the nation that had the highest level of per capita income.” Yet, they argue that America’s education system began to stagnate during the last third of the 20th century, at the same time the rest of the world began to invest heavily in the education of its citizens.²

Other nations have noticed. Data from the Organization for Economic Cooperation and Development show that highly industrialized competitor nations have increased college attainment faster than the United States in recent decades.³ A few nations, including South Korea, have even surpassed us in the proportion of the national population from ages 25 to 34 that holds a bachelor’s degree. When associate degrees are included, we fall to ninth place in college attainment. Meanwhile, America’s population is becoming increasingly diverse, with the greatest growth occurring among Hispanic citizens who have below-average college attainment rates. Helping new generations of Americans succeed in education beyond high school is crucial to the nation’s future prosperity.

Why is postsecondary attendance so important?

The need for a more educated citizenry is widely acknowledged and documented. The world of work offers impressive statistics regarding the need for a larger and better-trained workforce to man the economy and bridge the “skills gap.” As the overwhelming majority of new jobs require some postsecondary education, the obvious need is for more high school graduates to enroll in and complete college programs – either earning a degree or a certificate with value in the marketplace. A recent report by the Georgetown University’s Center on Education and the Workforce documents the underproduction of college-going workers since 1980. It projects that if current trends continue, the nation will produce three million fewer college graduates by 2018 than the labor market will require.⁴

This projection points to the economy’s ability to reorganize itself in ways that favor people with the knowledge and skills that college degrees represent. It also recognizes that essential workforce skills are being redefined in the blink of an eye – and that employer expectations are higher than ever before – and rising.

Aspiration for advanced learning is growing among all segments of our citizenry as the “knowledge economy” is driving people to universities, colleges and adult career centers for additional training. Technology is breaking down geographic and financial obstacles to advanced levels of learning. ***Of all the issues facing education today, however, none is more important than making sure high school students graduate ready for college and careers.***

² Goldin, C. & Katz, L. (2008). *The Race Between Education and Technology*. Cambridge: The Belknap Press of Harvard University Press

³ Organization for Economic Cooperation and Development (2014). “*Education at a Glance 2014*”. See at <http://www.oecd.org/unitedstates/United%20States-EAG2014-Country-Note.pdf>

⁴ Carnevale, A.P., & Rose, S.J. (2011) *The Undereducated American*. Washington, DC: Georgetown University, Center on Education and the Workforce

An Unsettling Prediction . . .

The National Center for Higher Education Management Systems projects that if Ohio continues doing the same things we're doing today, with our current rate of growth in postsecondary credentials, **by 2025 the state will have 60,000 fewer citizens with postsecondary education credentials** than it has today. This is because of the state's changing demographics – our older and more racially and ethnically diverse population. Also, low-income and minority students, as well as first-generation and adult students, traditionally have been underrepresented on college campuses and among college graduates.

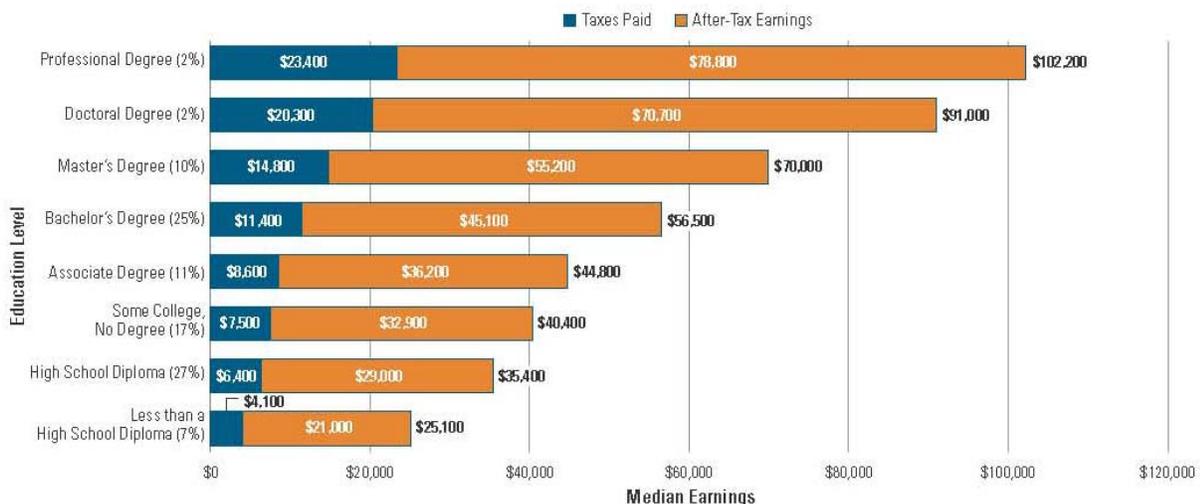
SOURCE: National Center for Higher Education Management Systems (2012). <http://www.nchems.org/>

Unfortunately, research confirms that high school graduation, college enrollment and degree completion still depend, in part, on one's economic circumstances, ethnicity and location. Far too many Ohio students are not being prepared for success in college and careers – some because they don't have sufficient choices or learning pathways and lack academic preparation, others because they are the first generation in their families to go to college, under-represented minorities or students with disabilities who often don't have the aspiration or confidence in their ability to succeed in higher education or the workplace.

What are the benefits of learning beyond high school?

At a personal level, higher levels of educational attainment yield substantial economic benefits – that is, **the more one learns, the more one earns**. Also, the financial return associated with college credentials and the gaps in earnings by education level have increased over time. In fact, between 2008 and 2011 – recession years that were financially challenging for many Americans – the gap between the median earnings of high school graduates ages 25 to 34 and those in the same age range with a bachelor's degree or higher *declined* from 74% to 69% for men and from 79% to 70% for women, but the long-term trend is upward.

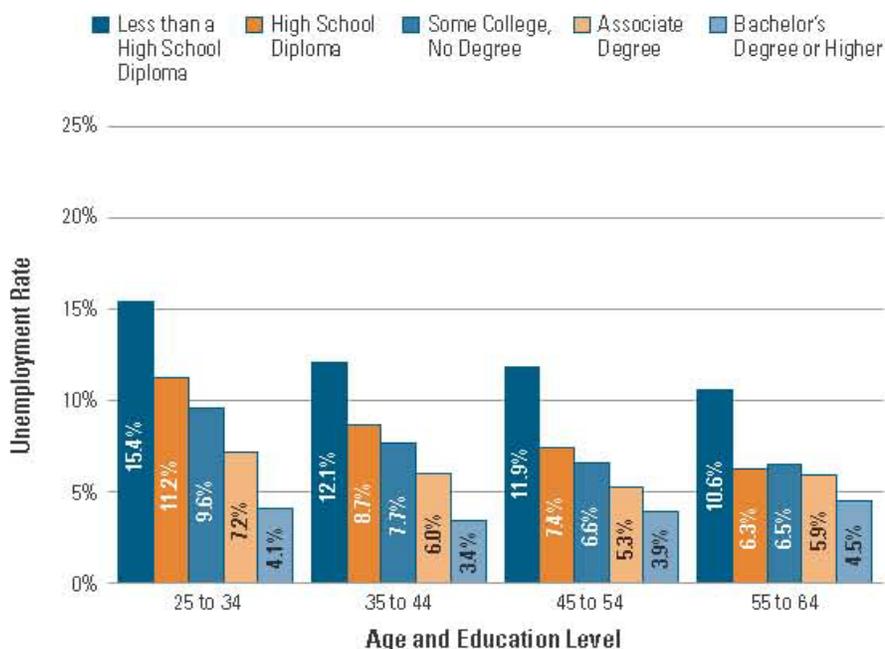
Education, Earnings and Tax Payments



SOURCE: Baum, S., Ma, J. and Payea, K. (2013). *Education Pays 2013: The Benefits of Higher Education for Individuals and Society*. The College Board

Individuals with higher levels of education also are less likely to find themselves unemployed. The 2012 unemployment rate for four-year college graduates ages 25 to 34 was 7.1 percentage points below the rate for high school graduates. The unemployment rates for individuals with associate degrees and with some college, but no degree, were 4.0 and 1.6 percentage points below that for high school graduates, respectively.

Unemployment by Educational Attainment Levels



SOURCE: Baum, S., Ma, J. and Payea, K. (2013)

Two-year degrees can pay off ...

Two-year associate degrees have long been seen as inferior by many to a four-year bachelor's degree. Recent research now shows that some two-year degrees offer much higher earnings than the typical four-year degree – at a fraction of the cost.

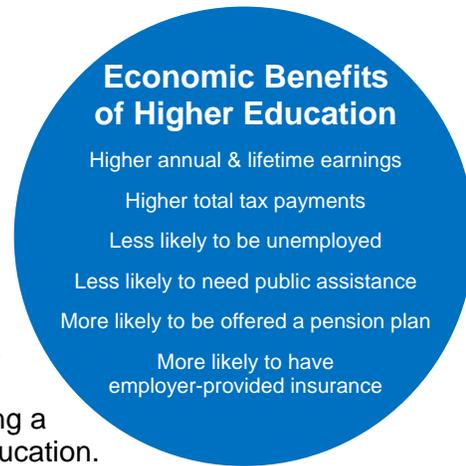
According to Georgetown University's Center on Education and the Workforce, nearly 30% of Americans with associate degrees now make more than those with bachelor's degrees. Other research in several states shows that, on average, community college graduates right out of school make more than graduates of four-year universities.

SOURCE: Marcus, J. (2013). "Community College grads out-earn bachelor's degree holders." CNNMoney (New York), February 26

Education's other economic benefits include:

- College-educated adults are more likely than others to receive health insurance and pension benefits from their employers.
- College education increases the chances that adults, over time, will move up the socioeconomic ladder.

As noted on page 6, federal, state, and local governments enjoy increased tax revenues from college graduates and spend less on income support programs for them, providing a direct financial return on investments in postsecondary education.



Is it time to abandon the college-for-all crusade?

To be sure, there's a lot of skepticism about the value of college today. For some, the college backlash is rooted in the rising anger about the cost of higher education, For others, it is the rejection of an elitist notion that the only jobs that matter are white-collar jobs people do in offices. Still others are simply looking for ways to reduce public funding, such as for state subsidies and financial aid programs.

Yet, the college-for-all debate is a straw man, because most of its advocates acknowledge that the real issue is not earning a bachelor's degree – rather, it's that everyone needs some postsecondary training – some learning beyond high school – and that much larger numbers of postsecondary students should complete their degree or certificate programs.

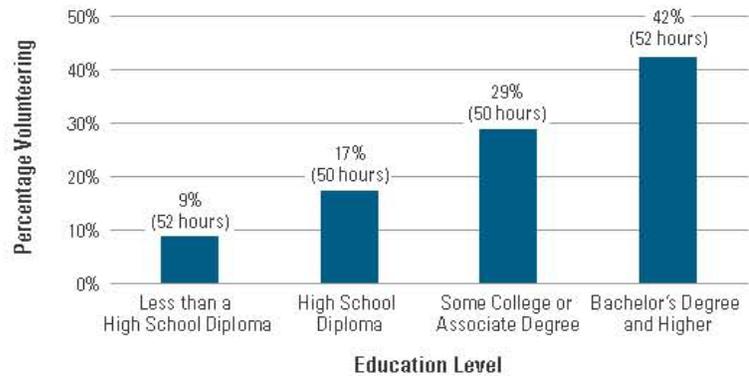
Clearly, young people who do not have education beyond high school either experience great difficulty getting jobs or are forced to take high-turnover, dead-end jobs that pay too little to support a family. Yet, the solution isn't necessarily a four-year college degree for all students. It's not going to happen – and it's not what employers are looking for.

Studies suggest that while the U.S. is expected to create 47 million jobs in the 10-year period ending in 2018, only a third of these jobs will require a bachelor's or higher degree. Almost as many jobs – about 30% – will only require an associate degree or a postsecondary career credential. This is why the Harvard University's Pathways to Prosperity Project has called for the development of a comprehensive "pathways network" to serve youth in high school and beyond. This network would offer multiple pathways – not a single pathway to success that involves attending and graduating from a four-year college – to help young people navigate the journey from adolescence to adulthood.

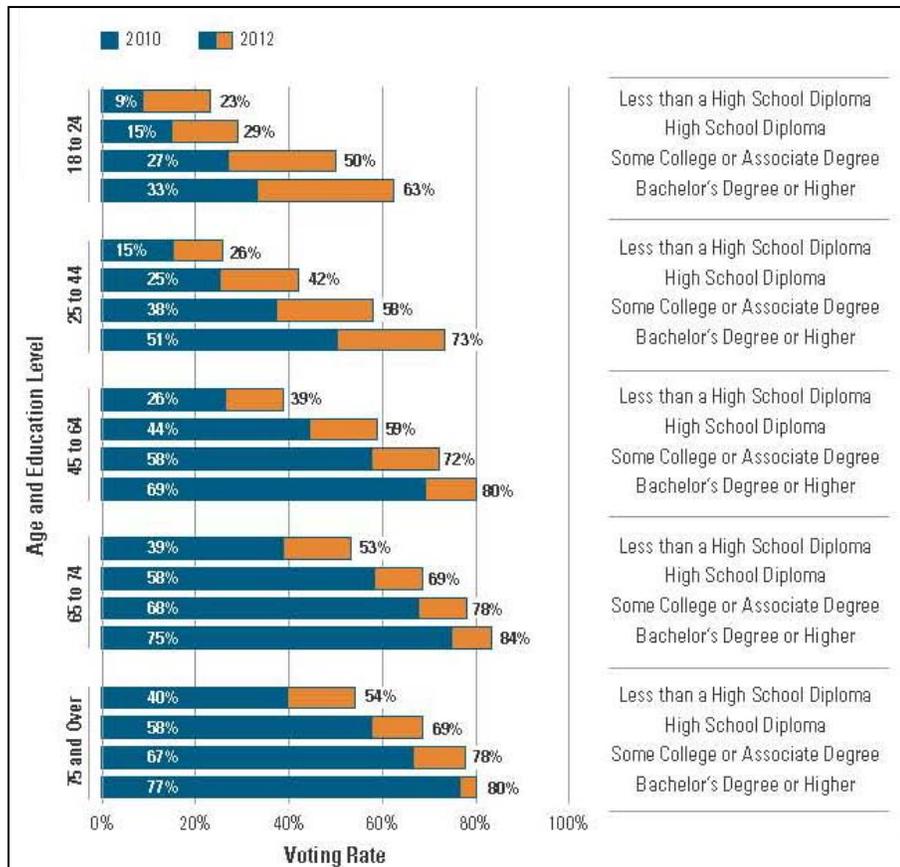
In this context, college and career readiness initiatives should be focused on preparing all graduates for some kind of formal learning beyond high school. Postsecondary education credentials of value in the marketplace cannot be limited to associate, bachelor, graduate and professional degrees. They must include certificates that increase job opportunities and potential earnings for individuals and increase employers' pool of job-ready workers.

In addition, more learning is associated with important **non-economic benefits** that improve the quality of life for individuals, communities and the larger society. For example:

- In a national survey, respondents were asked about their understanding of the political issues facing the county. Among adults ages 25 and older, 45% of those with at least a bachelor's degree said they understood quite a bit or a great deal about these issues. Only 34% of those with some college or an associate degree gave this response, while 21% of high school graduates and only 15% of those without a high school diploma reported understanding quite a bit or a great deal about political issues.
- In 2012, 42% of four-year college graduates, 29% of adults with some college or an associate degree, and 17% of high school graduates volunteered for organizations (see chart at right).
- In addition, among adults ages 45 to 64, 59% of high school graduates and 80% of bachelor's degree recipients voted in the 2012 General Election (see chart below).
- College education leads to healthier lifestyles, reducing health care costs.



SOURCE: Baum, S., Ma, J. and Payea, K. (2013)



SOURCE: Baum, S., Ma, J. and Payea, K. (2013)

Central Ohio's college-going culture

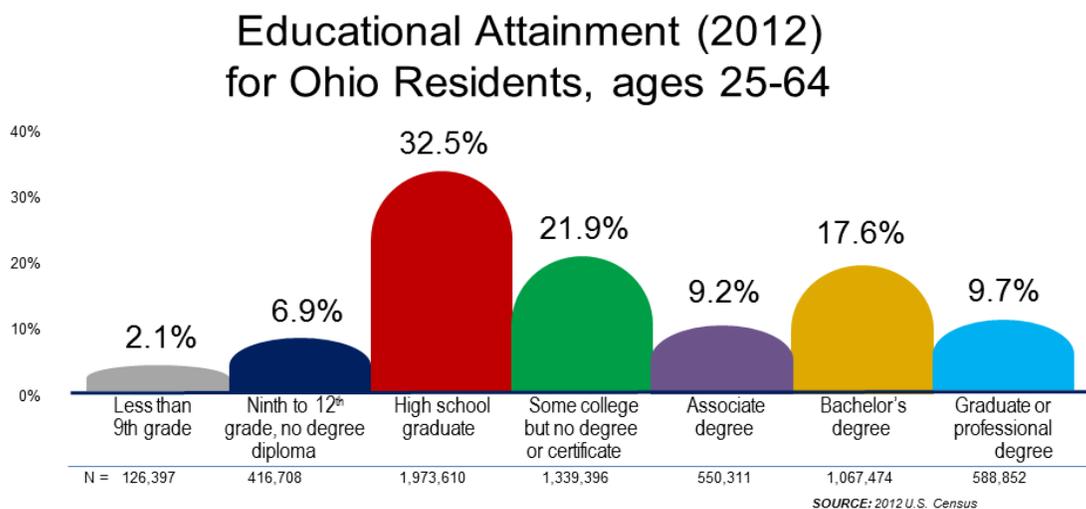
For generations of Central Ohioans, a high school diploma meant a steady job and a middle-class income needed to support a family. It offered an opportunity to pursue a satisfying career. But today, a high school education is no longer enough. Success in careers and in life demands knowledge and skills that make some form of postsecondary education a virtual requirement.

Consider these signs of the times:⁵

- Four out of five jobs lost during the recession that began in 2008 were those requiring a high school education or less. According to Lumina Foundation, those low-skill jobs are gone for good, replaced by jobs that require specialized training and skills.
- Despite a lingering high unemployment rate, employers say that they lack qualified job applicants. By 2020, two thirds of all jobs will require some postsecondary education.
- The United States ranks 13th among developed countries in college attainment rates for young adults.
- ***The economic imperative is painfully clear*** – for individuals, for Ohio and for our nation. Too many of our young people – right here in Central Ohio – are not adequately prepared for, or don't aspire for, postsecondary education and the careers it makes possible. Dramatic actions are needed to enable all students to finish high school and proceed onto a postsecondary learning experience.

Where Ohio stands

There are a couple ways to answer this question. First, as the chart below illustrates, more than 36% of working-age Ohioans (25-64) has earned an associate degree or higher. Second, from a comparative perspective, Ohio is stuck pretty much in the middle. In terms of the proportion of its working age population (25-64 year olds) with an associate degree or higher, Ohio is a bit below the national average – but higher than four of its neighboring states.



⁵ Lumina Foundation (2015). *A Stronger Nation Through Higher Education*. <http://www.luminafoundation.org/>

Given the reforms of the past decade, one might expect that educational attainment rates are on the rise – maybe enough to move Ohio out of the pack. Unfortunately, the most current data provide little support for this suggestion. According to 2012 Census figures, the needle hasn't moved much for Ohio's 6.1 million working-age adults (ages 25-64) who hold a two- or four-year college degree since 2008. And Ohio's 36.5% is still below the national average of 39.4%.⁶

2008	2009	2010	2011	2012
34.9%	34.7%	35.8%	35.5%	36.5%

It should be noted that the static nature of this educational attainment trend mirrors what has been happening in Ohio's neighboring states.⁷

Percent of the State's Working-age Population (ages 25-64) with an Associate Degree or More

	2008	2009	2010	2011	2012
Indiana	33.4	33.0	33.2	33.8	34.4
Kentucky	29.2	30.5	30.0	30.8	31.7
Michigan	35.7	35.8	36.4	36.8	37.4
Ohio	34.9	34.7	35.8	35.5	36.5
Pennsylvania	37.9	37.8	38.6	38.6	39.7
West Virginia	25.6	26.4	26.1	27.8	27.8

SOURCE: Lumina Foundation, *A Stronger Nation Through Higher Education*. <http://www.luminafoundation.org/>

Where Central Ohio stands

- While 36.5% of Ohio's working-age adults (ages 25-64) hold a two-year or four-year college degree, attainment levels vary widely across counties. In Central Ohio, across-county differences are substantial:⁸

Percentage of Central Ohio adults (ages 25 to 64) with at least an associate degree, by county

Delaware County	60.9%
Franklin County	45.5%
Licking County	32.2%
Madison County	28.0%
Pickaway County	21.2%
Union County	38.2%

SOURCE: U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates

⁶ Ibid.

⁷ Ibid.

⁸ Lumina Foundation (2015). <http://www.luminafoundation.org/>

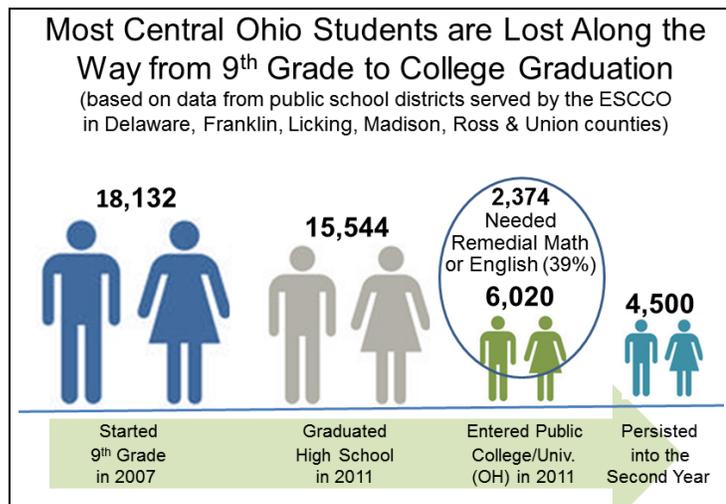
- The trend data on the chart below show that both the number and percentage of graduates enrolling as first-time college students in Ohio’s public colleges and universities directly after high school were relatively static between 2009 and 2013 – a period of heightened activity aimed at improving young people’s college and career readiness and raising levels of postsecondary participation and success. It is a development that needs to be monitored closely as Central Ohio districts and their postsecondary partners expand and strengthen their college and career readiness and completion agenda. It also is a reminder of the need for bold actions that go beyond nibbling at the margins by addressing core problems.

High School-to-College Outcomes for Students in Public School Districts Served by the Educational Service Center of Central Ohio in Delaware, Franklin, Licking, Madison, Ross and Union Counties

High School Graduation Year	Number of Graduates, Public High Schools	Enrolled as First-Time College Students Directly After High School		Took Developmental Mathematics or English		Persisted to Second Year	
		Number	Percent	Number	Percent	Number	Percent
2008	14,637	5,493	38%	2,352	43%	4,390	80%
2009	14,992	6,138	41%	2,618	43%	4,716	77%
2010	15,180	6,153	41%	2,617	43%	4,658	76%
2011	15,544	6,020	39%	2,374	39%	4,396	73%
2012	15,438	5,950	39%	2,431	41%	4,500	76%
2013	15,045	5,751	38%	1,957	34%	NA	NA

SOURCE: Ohio Department of Higher Education

- In 2007, approximately 18,000 students entered ninth grade in the public school districts served by the ESC of Central Ohio. Four years later, 15,544 of these students graduated from the twelfth grade, which means there was a 14% dropout rate. Of these public high school graduates, 6,020 enrolled directly in an Ohio public 2-year or 4-year college or university (including regional campuses). Of these students, 2,374 (39%) were required to take a remedial course in English and/ or math, which means they are having a more difficult time progressing to a degree or certificate. Finally, 4,500 of these students returned for the second year. Historic patterns would suggest that approximately 2,000 of these young people will graduate for college – in three years for a two-year degree, and six years for a four-year degree.



A region on the rebound . . .

Despite suffering more severe job losses than the national average during the recent economic downturn, the Columbus region has bounced back and is now enjoying gains in jobs, incomes and population and declining unemployment



11.6%

increase in gross regional product from 2010 through 2013, far exceeding the 6.1% growth for the overall U.S. economy

84,000

net new jobs from Jan. 2010 to Sept. 2014

14.2%

increase in per capita income from 2010 to 2013

4.3%

unemployment rate for Sept. 2014, well below national and state averages

1.3%

annual population increase; second fastest growing metro area in Midwest

Skilled, job-ready workforce key to continued growth and opportunity

Middle-skill jobs are at the forefront of the region's recent economic growth yet emerging workforce shortages could impact future competitiveness.

- Key sectors of the local economy rely heavily on middle- and high-skill workers, including healthcare; finance and insurance services; corporate headquarters; transportation, equipment and machinery manufacturing; computer and data centers; and research and development.
- In many of these sectors, employers are having difficulty filling middle-skill jobs due to various **mismatches in the talent supply chain**.
- These mismatches could hurt the region's competitiveness and limit the financial well-being of hundreds of thousands of people in Central Ohio

Adapted from Skills in Demand: Building a Middle-Skill Workforce to Grow the Columbus Economy. JPMorgan Chase, 2015.

College and career readiness: what does it really mean?

There is a tacit understanding surrounding the notion of "college readiness" that assumes everyone has a common definition. It goes something like this:

"College readiness" is having the content and skills that enable a student to succeed at the next level (i.e., college), as reflected on placement assessments.

In other words, college readiness is the preparation necessary for a high school student to be successful in the first-level or gateway college-credit courses in a postsecondary program.

Reflecting this type of definition, the Ohio Department of Higher Education, in collaboration with the state's public colleges and universities, has produced a set of college readiness "expectations" for mathematics and English that are aligned with the state's Learning Standards for K-12 education. The aligned Learning Standards and the college readiness expectations serve as a link connecting what students have learned and what they are ready to learn next. This is a significant undertaking since it establishes a set of common high-level standards for all students that are aligned with college-level expectations in English, reading and mathematics, and begins addressing the high-school-diploma-to-college success issue.

While students are required to take and pass a specific curriculum (courses), the threshold measure of college readiness really is the placement assessment given to all entering students to determine their proficiency, and college-level course placement in English, mathematics and reading.

While not universal, most colleges and universities rely on the ACT (or another ACT product, COMPASS) for this purpose. Also in use by community colleges is the ACCUPLACER, which is offered through the College Board, and some institutions are using Assessment and Learning in Knowledge Spaces (ALEKS) placement. Yet, Ohio institutions of higher education rely mostly on the ACT or COMPASS for placement into the first-level college credit course, and by default, placement into remedial course(s).

To determine college placement, the Ohio Department of Higher Education established cut scores for the ACT and corresponding COMPASS scores for English (18), mathematics (22) and reading (21). The cut scores were set in 2007 as an extension of its Articulation and Transfer initiative and were reviewed again in 2012.

In search of a broader notion of “readiness”

A growing group of education authorities are questioning traditional assumptions about college readiness – and more generally, college and career readiness. Suggesting that these assumptions may be too limited and don’t necessarily address pertinent issues, they believe the standards and cut scores discussed above, by themselves, overlook important features of college and career readiness. As important as this knowledge and skills are, it is more than just this acquisition that separates high school from college, they maintain. Colleges and faculty members have different demands and expectations for students. The goal, pace of learning and key thinking strategies are more accelerated than high school.

This point is made convincingly in a report written by Professor David Conley for the Education Policy Improvement Center:

The college instructor is more likely to emphasize a series of key thinking skills that students, for the most part, do not develop extensively in high school. They expect students to make inferences, interpret results, analyze conflicting explanations of phenomena, support arguments with evidence, solve complex problems that have no obvious answer, reach conclusions, engage in give-and-take of ideas, and generally think deeply about what they are being taught.⁹

This notion of ***cognitive understanding*** that is required in college and often beyond the usual high school learning experience posits another layer of transition that must be accounted for in college readiness strategies. Greater attention needs to focus on advanced thinking skills and academic behaviors often referred to as “habits of the mind.”

⁹ Conley, David. (2007). *Toward a More Comprehensive Conception of College Readiness*. Educational Policy Improvement Center, Eugene, OR.

Also of critical importance to a successful college transition are additional skill sets that David Conley refers to as “life skills,” “readiness behaviors” and “college and career survival skills.” Much of college success can be attributed to the acquisition of these cognitive and personal skill domains that assist students in their own goal setting and ability to navigate the higher education culture. From this perspective students who are ready for college and careers exhibit:

Content Knowledge	A deep core content knowledge in academic and applicable technical content
Life Skills	The effective use of cognitive strategies (e.g., research, problem-solving, analytical thinking and critical inquiry)
Readiness Behaviors	The acquisition of readiness behaviors such as goal-setting, persistence and resourcefulness
College and Careers Survival Skills	The acquisition of knowledge and skills needed to successfully navigate within the world of higher education and world of work

SOURCE: David Conley

For Professor Conley, a more difficult challenge is to construct a broader definition and conception of **college and career readiness** – one that acknowledges and embraces the fact that not all students are going to follow the same path to college and career readiness. In Conley’s words:

“The genius of the US postsecondary system is that it creates so many options for so many students. Why should all students be required to have exactly the same set of knowledge and skills in order to go to college when they plan to pursue such a wide range of majors and programs once they get there? While all students need the opportunity to learn a curriculum that enables them to develop a strong foundation of academic knowledge and skills, preparation for postsecondary education requires more than just meeting a set of standards in English and mathematics. The secondary school program of study needs more opportunities for students to match what they are learning with their aspirations, interests, and ambitions.”¹⁰

¹⁰ Conley, D.T. (2014). *Getting Ready for College, Careers, and the Common Core*. San Francisco: Jossey-Bass, p. 43

Career-technical education in Central Ohio . . .

The Ohio Department of Education lists 16 different career-technical fields available ranging from arts, communication and marketing, to engineering/manufacturing, health sciences and transportation systems. Each program has its own set of courses and is designed to teach students career-technical competencies, based on industry standards, leading to industry credentials and college credit. Students are exposed to real work experience and project-based, “hands-on” learning.

Business/education partnerships are critical to the effectiveness of Central Ohio’s career-technical programs. All career-technical programs meet Tech Prep program standards that are designed to produce graduates ready for college **and** high-demand careers. Tech Prep programs are aligned with college curricula to create a 2+2 program. Tech Prep is divided into six state regional centers with the mission of supporting and coordinating Programs of Study between high schools and colleges in creating opportunities for students to earn college credits while in high school. To meet area workforce needs, programs in the Central Region:

- Offer career pathways with curriculum and learning opportunities that span at least grades 9 through 14. (Career preparation has been expanded to 7th and 8th grades.)
- Use problem- or work-based learning approaches in the Tech Prep approved program.
- Accept postsecondary credit for specific college-level coursework completed while in high school.
- Offer industry-recognized technical credentials as part of the program pathway.

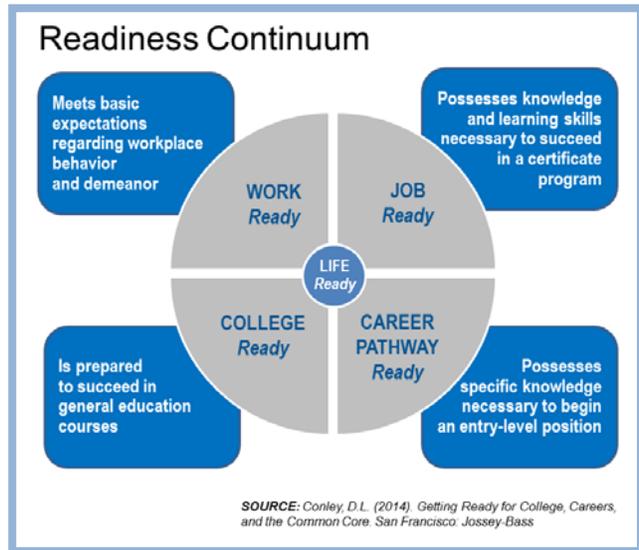
The following programs are illustrative of the diverse programs and numerous partnerships found in Central Ohio.

- In Madison County, businesses such as Intelligrated, Nissen Chemitec, StanleyElectric and GraMag and other members of Madison County Future have formed the Madison County Workplace Credential. The companies work with Tolles Career and Technical Center and guarantee students an interview upon graduation, if they earn appropriate credentials while in high school.
- In partnership with Dublin City Schools, Tolles offers students IT-specific training, on the job experiences and a nationally-recognized certificate upon completion.
- The Delaware Area Career Center offers numerous training programs that bring certification upon completion. For example, the Center’s Ohio Basic Peace Officer Training program is mandated by the state of Ohio to allow its graduates to serve as commissioned peace officers. Completion of the program allows the individual to receive the basic police officer certificate upon appointment to a law enforcement agency. Similarly, the Center’s Firefighting program consists of classroom and hands-on training covering all aspects of firefighting. This program leads to the highest level of fire certification in the state of Ohio.

SOURCE: Ohio Department of Education

To help educators and students know where they stand at any time, Conley offers a “readiness continuum” that defines and specifies what schools are expecting from students by observing the level of readiness toward which the schools’ instructional programs are gauged. Based on this model, Conley advances a broader conception of college and career readiness:

- Students who are ready for college and career can qualify for and succeed in entry-level, credit-bearing college courses leading to a baccalaureate degree, a certificate, or career pathway-oriented training programs without the need for remedial or developmental course work. They can complete such entry-level, credit-bearing courses at a level that enables them to continue in the major or program of study they have chosen.
- However, not every student requires the same proficiency in all areas to be ready. Student interests and post-high school aspirations influence the precise readiness profile that each student needs to demonstrate to be deemed fully ready for postsecondary studies.
- Therefore, a single score on a test given to high school students is not an adequate measure of college or career readiness because it does not take into account any possible individualization of the match between knowledge and skills, on the one hand, and aspirations, on the other.¹¹



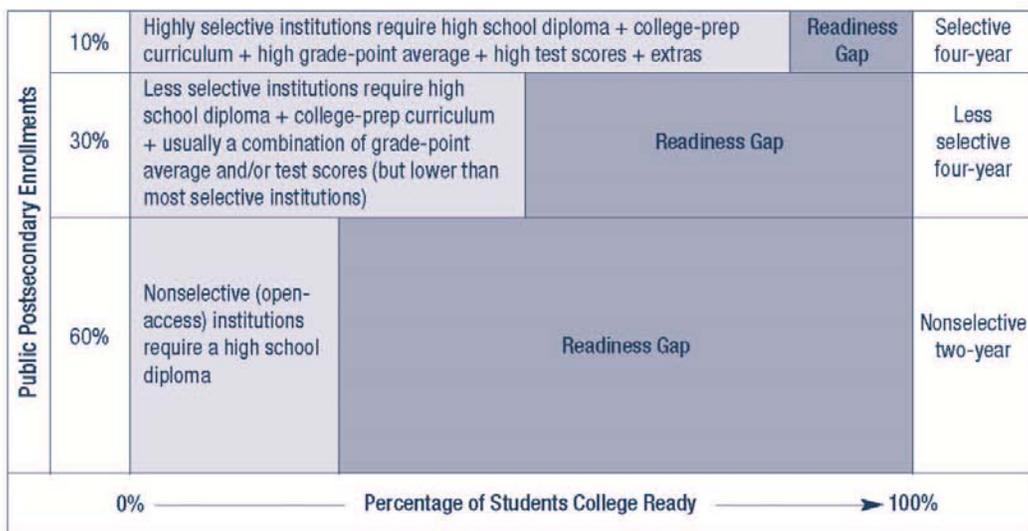
The issue of remediation

Lower college readiness levels also provide for lower graduation rates and additional cost to both the student and the state. Indeed, many of the shortfalls for not graduating students and doing so in a timely manner, as cited by Complete College America, is due to the lack of students being college ready. Students that attend higher education institutions without the need for remediation graduate college with a certificate or a degree at a higher rate than those that need the additional assistance. The rate for those same two groups of student cohorts to earn a bachelor’s degree is even more dramatic.

The students in need of remedial services generally are found in open-access institutions with the vast majority being in the two-year campus system. State policy is purposefully channeling students in need of remediation toward the two-year sector.

¹¹ Ibid, p. 51.

The Readiness Gap by Institutional Sector



This figure shows the extent of the college readiness problem by portraying the gap between eligibility for college and readiness to do college-level work. Students in public colleges and universities attend one of three types of postsecondary institutions: highly selective four-year institutions, somewhat selective four-year institutions, or nonselective, open-access, two-year colleges. The readiness gap is nominal in the most selective universities because their admission criteria screen out most students who are underprepared. The gap is huge, however, in the other two sections of higher education, which serve between 80% and 90% of undergraduates in public institutions.

SOURCE: Beyond the Rhetoric, SREB, June 2010

Given the nature of the open access institutions, where, by law, the high school diploma is the only requirement for enrollment, a serious gap has been created between enrolling in college and being college-ready. Such students usually perform poorly on the placement assessments and are placed into one of three-developmental-level, non-credit courses for which they pay tuition but gain no college credit for the coursework. The fact that many Ohio high school graduates earn a diploma and then enroll in a postsecondary program without being college-ready continues to plague the state's higher education and workforce training efforts.¹²

¹² The state of Ohio has taken two steps that address the remediation crisis. First, it has "sunset" state operating subsidies to state universities, with the exception of three "access" universities for remedial courses. This action has the effect of directing students in need of remediation to Ohio's two-year institutions of higher education. Credits earned at these institutions are transferable to state universities in accordance with articulation and transfer agreements developed under sections 3333.16, 3333.161, and 3333.162 of the Revised Code. See ORC 3345.061 at: <http://codes.ohio.gov/orc/3345.061>. Also, ORC 3345.061 (F) required the presidents of Ohio's public institutions of higher education to jointly establish uniform statewide standards in mathematics, science, reading, and writing each student enrolled in their institutions must meet to be considered in remediation-free status. The presidents also were directed to establish assessments, if they deemed necessary, to determine if a student meets the standards adopted under this provision. For more information about Ohio's remediation-free standards, see: https://www.ohiohighered.org/sites/ohiohighered.org/files/uploads/data/reports/hs-to-college/2012_UNIFORM_STATEWIDE_REMEDIATION_FREE_STANDARDS%28010913%29.pdf

A “Bridge to Nowhere” Remedial Education in Ohio’s 2-Year and 4-Year Public Colleges

	17 – 19 year olds	20 – 24 year olds
2-Year Colleges		
% enrolling in remedial courses	59.6%	57.1%
% remedial students completing remedial courses	48.9%	42.5%
% remedial students completing remedial AND college-level courses	26.8%	17.3%
4-Year Colleges		
% enrolling in remedial courses	10.0%	7.7%
% remedial students completing remedial courses	63.3%	49.5%
% remedial students completing remedial AND college-level courses	49.8%	27.0%

SOURCE: Complete College America, Remediation: Higher Education’s Bridge to Nowhere, 2012

Graduation Rates of Full-Time Students Enrolling in Remedial Education at Ohio’s Public Colleges and Universities

Certificates	Cohort started in fall 2005 in 2 years	11.7%
Associate Degree	Cohort started in fall 2004 in 3 years	6.4%
Bachelor’s Degree	Cohort started in fall 2002 in 6 years	33.8%

SOURCE: Complete College America, Remediation: Higher Education’s Bridge to Nowhere, 2012

Program boosts two-year graduate rate of community college students who need remedial education . . .

A rigorous evaluation of the City University of New York's (CUNY's) Accelerated Study in Associate Programs (ASAP) has produced encouraging results.

What Is ASAP?

In 2007, The City University of New York (CUNY), with the support and funding from the New York City Center for Economic Opportunity (CEO), launched ASAP at all six CUNY community colleges. ASAP requires students to attend college full time and provides them with a rich array of supports for three full years, including a tuition waiver that covers any gap between a student's financial aid and tuition and fees, special seminars and block-scheduled classes, enhanced advising, career services, free MetroCards for use on public transportation and free use of textbooks.

In 2009, an internal evaluation of ASAP found very promising effects for participating students. At that point, CUNY decided to expand the program and commissioned MDRC, a nonprofit, nonpartisan education and social policy research firm, to conduct an external study to test ASAP's effects using a random assignment design, the "gold standard" methodology in program evaluation.

What Did MDRC's Study Find?

Focusing on three CUNY campuses, MDRC compared ASAP – which targets low-income students who need one or two remedial courses to build their reading, writing and mathematics skills – with regular services and classes at the colleges. Key findings included:

- *After the first semester, ASAP consistently increased the likelihood that students would enroll in each subsequent semester by 8 to 10 percentage points.*
- *ASAP increased the average number of credits earned over two years by 7.6 credits (37.9 for ASAP students vs. 30.4 for control students) – a 25 percent increase that represents 13 percent of the college-level credits required to earn a degree.*
- *ASAP increased the proportion of students who earned an associate's degree in two years by 5.7 percentage points (14.5 percent for ASAP students vs. 8.7 percent for the control group). It's should be noted that these students had to fulfill remedial education requirements before earning at least 60 college-level credits.*

According to Kristin Morse, executive director of the New York City Center for Economic Opportunity, "By significantly improving graduation rates for participating students, CUNY ASAP has set a new standard of success for community colleges nationwide. A college degree is the best pathway out of poverty, and ASAP makes that path a reality for many more students."

SOURCE: MDRC news release (January 2014). "New Study Shows CUNY's ASAP Program Boosts Two-Year Graduation Rate of Community College Students Who Need Remedial Education." See at <http://www.mdrc.org/news/press-release/cuny's-asap-program-boosts-graduation-rate-students-who-need-remedial-education>

College Credit Plus

Creating a seamless transition from high school into college and careers

Any effective college and career readiness initiative must acknowledge the diversity of the educational experience, and must allow for and encourage flexible learning as a tool for meeting higher standards. Serious efforts to improve learning opportunities for all students must be rooted in getting the conditions for learning right. They must embrace new teaching and learning strategies to keep pace with changing times and student needs. They must place greater emphasis on demonstrated competence and mastery. And they must move away from industrial age production processes and structures, giving students, schools and districts new incentives and flexibility to achieve new expectations.

Applied to the college and career readiness challenge, these assertions remind us of the need to move beyond one-size-fits-all approaches – to give students the flexibility to exercise options that personalize learning in ways that meet their individual needs. For many students, this means creating opportunities to **accelerate their learning** and to pursue new pathways to success. For others, it means **enhancing remediation and developmental learning supports** all along the learning continuum – and specifically before high school graduation.

For all students, flexibility requires opportunities to show what they know and move on to higher-order content they are ready to learn and have not yet mastered, and to learn subject matter and earn course credit in ways not limited solely to “seat time” or the walls of a school building.

High school students can earn two types of college credit.

- **Transcribed college credit** – Upon successful completion of the course, the student receives transcribed credit from a college or university.
- **Articulated college credit** – Upon successful completion of the course, the student’s high school transcript includes advanced credit that can be accepted as college credit at the time the student matriculates to an institution of higher education. AP course credit is one example of articulated credit.

Note: Transcribed credit for courses within the Ohio Transfer Module or the Ohio Transfer Assurance Guides is guaranteed to transfer among Ohio public colleges and universities. Ohio public colleges and universities further guarantee the awarding of articulated credit for students earning a score of three or greater on an AP exam. For private or out-of-state colleges and universities, the acceptance of any type of college credit earned in high school is at the institution’s discretion.

Acknowledging that the number of Ohio students earning advanced credit while in high school is too low, the state developed the *College Credit Plus* program. **College Credit Plus** focuses on providing seamless and equitable pathways for qualified high school students across all demographic populations who are academically ready to access and benefit from early postsecondary learning experiences. It gives students an opportunity to accelerate their

learning, which is a proven educational strategy with the capacity to elevate students' academic success at both the secondary and postsecondary levels.¹³

Ohio's recent experience with dual credit programs . . .

- *In autumn and spring 2013, approximately 31,000 public high school students participated in dual credit programs. That represents just 5% of the state's total potential pool of about 560,000 public high school students.*
- *Minority and low-income students participate at substantially lower rates in relation to the percentage of their overall student populations in the state.*
- *Current law requires all high schools to provide students with the opportunity to participate in a dual credit program and that each high school provide at least one dual credit option. Yet, these requirements have not been sufficient to significantly advance dual credit participation.*
- *One of the perceived barriers to fuller dual credit participation in Ohio has been the program's structure and the lack of transparency in the way dual credit is funded.*
- *Other factors that may have inhibited participation are inadequate and incomplete information to students and parents on the benefits and opportunities of earning college credit while in high school; lack of access to dual credit courses; insufficient numbers of high school teachers credentialed to teach college courses and lack of complete data upon which to make dual credit policy decisions.*

SOURCE: Ohio Department of Higher Education (2014). *College Credit Plus*

What is College Credit Plus?

- *College Credit Plus* replaces the state's previous PostSecondary Enrollment Option (PSEO) and redefines "alternative dual enrollment" programs as advanced standing programs.
 1. It governs those arrangements where a student is engaged in non-secular, non-remedial educational coursework while in high school that results in transcribed high school and college credit at the successful conclusion of that coursework.
 2. It is the primary funding mechanism for student-earned, transcribed college credit while in high school; funding flows to the college or university via a transfer from the public school district's state foundation funds or from state funds appropriated for non-public and home-schooled students.

¹³ For more information about College Credit Plus, see:
https://www.ohiohighered.org/content/college_credit_plus_resources_administrators

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- *College Credit Plus* is designed to (1) expand participation in dual credit opportunities among all student demographic populations; (2) create a transparent dual credit funding system in which both school districts and colleges equitably share in the costs of educating dual credit students; (3) offer courses that are purposeful and meaningful for students; (4) ensure the academic integrity of college courses when taught in the high school by a high school teacher; and (5) make sure that parents and students receive comprehensive and consistent communication regarding *College Credit Plus* opportunities and requirements.

Are all public school districts and public institutions of higher education required to participate in College Credit Plus; and, if so, what must they do?

- Yes. All Ohio public school districts and Ohio public colleges and universities must participate in *College Credit Plus*.
 - All public school districts and all public institutions of higher education must allow college-ready students in grades 7-12 who qualify for college admission and demonstrate college readiness to participate.
 - All nonpublic secondary schools receiving state aid must allow college-ready students in grades 7-12 who qualify for college admission to participate.
 - Nonpublic institutions of higher education may participate.
 - Each participating institution of higher education must apply its regular student admissions standards to *College Credit Plus* students.
- Eligible students can take a course and earn credit that appears on both their high school and college transcripts. To be eligible, students must meet the admission standards of the participating college or university to which they apply for enrollment. For open enrollment institutions, students must demonstrate that they are college ready, as defined by the Ohio remediation-free standards.
- Each high school must develop at least two pathway opportunities through *College Credit Plus*:
 - One requisite pathway opportunity must allow a student to earn 15 transcribed college credits.
 - The second requisite pathway opportunity must allow a student to earn 30 transcribed college credits.
- Pathway opportunities must be developed in coordination with at least one partnering institution of higher education. Pathways must be published as part of school districts' official course offerings.
- No eligible public school student in grades 7 through 12 may be denied *College Credit Plus* participation through a public institution of higher education.

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- Each year, all participating institutions of higher education must:
 - Provide a professional development opportunity to all high school teachers who instruct a *College Credit Plus* course as an adjunct
 - Conduct at least one observation of each section of each college course taught in high schools
 - Assign an advisor to each *College Credit Plus* student
 - Schedule at least one meeting of *College Credit Plus* student and advisor prior to the institution's effective no-fault course drop out date
 - Participating institutions of higher education also must:
 - Provide a minimum of three hours of professional development experiences to all high school teachers who instruct *College Credit Plus* courses as an adjunct
 - Conduct at least one observation of each *College Credit Plus* course taught by an adjunct high school teacher in 2015-16 and in alternating years thereafter
 - Assign a college advisor to each *College Credit Plus* student and schedule a meeting prior to the institution's effective no-fault drop course date
 - All participating secondary schools must:
 - Provide program information prior to March 1 to students in grades 6-11 and to their parents/guardians
 - Provide counseling services to interested students in grades 6-11
 - Verify that no high school student is taking more than 30 college credit hours per year or 120 college credit hours while in high school
 - Assure each student does not exceed full-time status
 - Convert college credits to Carnegie Units: 3+ college credits = 1 Carnegie Unit; 2 college credits = .66 Carnegie Unit; 1 college credit = .33 Carnegie Unit
 - Weight *College Credit Plus* grades as they are weighted in all advanced standing programs, including AP courses, honors programs
 - Develop a process to identify economically disadvantaged students
 - Provide sample pathways
 - Requirements of all institutions of higher education, public districts and nonpublic high schools
 - Promote *College Credit Plus* on websites and communications to parents
 - Present (in collaboration with their College Credit partners) at least one dedicated *College Credit Plus* event to students and parents
 - Coordinate with all public institutions of higher education and participating private postsecondary institutions within a 30-mile radius on presentations to students and parents prior to March 30
 - Assure that *College Credit Plus* classrooms at high schools adhere to all requirements

Benefits of dual credit . . .

Dual enrollment gives students a sample of what full-time college coursework will be like. By trying out a few classes while still in high school, students can get used to the academic environment before they leave the comfort and support of home.

Students can take classes that aren't offered at their high schools.

Dual enrollment is a proven cure for "senioritis." It builds a college-going environment within the high school.

College courses can give students a closer look at their area of academic interest.

Taking a college-level course is another option for students who don't opt for AP courses, or for students whose high schools don't make AP courses available.

Perhaps the biggest benefit of dual credit is that students can start accumulating college credits, helping them graduate on time while reducing the cost of a college education.

When will the College Credit Plus program be operational?

- *College Credit Plus starts in the 2015-16 school year.*

What courses will be offered and where?

- *All College Credit Plus courses must be:*
 - *The same as those offered on campus, as included in the college's or university's course catalogue and with the same syllabus and student learning outcomes*
 - *Nonsectarian and non-remedial*
 - *Applicable toward a degree or professional certificate*
 - *Taught by instructors who meet the Ohio Department of Higher Education's academic credential requirements*
 - *Transcribed or approved under the Ohio Transfer Module or Transfer Assurance Guides (TAGs)*
- *Courses will be taught:*
 - *In the high school by a high school teacher certified as an adjunct by the partner institution of higher education*
 - *In the high school by a college faculty member*
 - *On the college campus or through electronic modalities by a college faculty member*

-
- For *College Credit Plus* courses offered online or off a college campus, courses may include students who are not enrolled in the college class if (1) the course is delivered and assessed identically to the course as delivered on the college campus; (2) all students are assessed in the same manner; and (3) the student and her/his parents are informed that the student who took the class and did not enroll for college credit would likely be required to retake the course in college should the student desire college credit.

Where will dual credit students be enrolled?

- Students are enrolled in both high school and college and can attend the class in any setting arranged by the college.

Guaranteed credit transfer . . .

Easy credit transfer and accelerated student mobility are the cornerstones of the University System of Ohio. They give all Ohioans a clear pathway for gaining the skills and knowledge necessary for productive and satisfying 21st century careers.

Ohio's Articulation and Transfer system is built around a system of guaranteed transfer and application of credit among the state's public institutions of higher education.

For more information, see <https://www.ohiohighered.org/transfer/policy>

Is College Credit Plus intended exclusively for high-performing high school students?

- No. *College Credit Plus* is geared toward:
 - Students in grades 7-12 who demonstrate they are academically college-ready
 - Top students who are on the track to attend college and will be successful academically in postsecondary education
 - Students who are college-ready in some subject areas, but are remedial in others
- Students must be **enrolled** in both college and high school.

Who will teach the courses and how will quality be guaranteed?

- Teachers who teach a *College Credit Plus* course in a high school must receive professional development and be an adjunct professor at a college or university. All courses offered through *College Credit Plus* – even courses offered in the high school – must be the same course that the college offers. The course must apply to a degree or professional certificate at the credit-granting institution.

Will students be required to pay for their College Credit Plus courses?

- No. There is no cost for the student to participate in *College Credit Plus* when the student is enrolled in a public college or university. The high school and college or university share the cost for the course. Students who are not economically disadvantaged and choose to enroll in a *College Credit Plus* course at a participating private college or university might incur costs.

What data will be collected – and how?

- *The College Credit Plus* program is required to consistently collect, report and track data from all participating secondary and postsecondary institutions to identify the students enrolled, the courses offered and taken, credits earned, the instructor qualifications, student performance and agreement innovations.
- The Ohio Department of Higher Education will determine the requirements and processes for collecting and reporting data.

Emerging *College Credit Plus* practices

Responding to the challenge of improving students' preparation for success in college and careers, and of smoothing the transition between high school and postsecondary education, Ohio's educators and education policy leaders have launched a multitude of programs at the district and regional levels. In addition, a number of statewide support programs have been in place for several years to help both traditional and adult students achieve readiness for college and careers. They include the following:

- College Tech Prep and Project Lead the Way
- Ohio College Access Network (OCAN)
- Adult Basic and Literacy Education (ABLE)
- Ohio STEM Learning Network (OSLN)
- Innovation Learning Network (ILN)
- Central Ohio Compact
- Pathways to Prosperity Network
- Articulation and Transfer

Profiles of each of these initiatives can be found in Appendix A.

With the implementation of *College Credit Plus* scheduled for autumn 2015, it is not too early to begin thinking about how the program's performance will be measured. The fundamental underpinning of *College Credit Plus* is the assumption that early postsecondary experiences will increase the number of high school graduates who enroll directly in a college or university and that students who participate in dual credit will be more likely to persist in and complete a degree or certificate program at a reduced cost. Therefore, it will be important to track changes in dual enrollment participation rates over time, with emphasis on the courses taken and students' success in those classes. Yet, it also will be necessary to measure participants' college-going rates, their persistence in postsecondary education, the time required for their degree or program completion and the savings realized by students and their families.

In addition, it is not too soon to begin establishing the criteria that will be used over time to assess the performance of schools, districts and institutions of higher education as they turn the state's *College Credit Plus* directives into tangible services for the students and communities they serve. For our purposes, these criteria will be used to identify **emerging practices with promise** that have already been developed, or are being developed, across the Central Ohio region.

1. **Partnerships:** How are schools and districts working with institutions of higher education in their area to build the infrastructure that will be needed to deliver on the dual credit promise?
2. **Curriculum:** Do the courses offered through College Credit Plus help a broad range of students get a head start on their desired degree and certificate programs?
3. **Qualified teachers:** Is there a sufficient number of qualified teachers to support a district's dual credit program, and who is actively working to develop that critical resource?

4. **Instruction and coursework:** What measures have been taken to track students' performance in dual credit courses – and to monitor the quality of instruction and coursework?
5. **Advising services:** Do students have access to high-quality advising services both at their high schools and at participating institutions of higher education?
6. **Communications:** Are parents and students receiving sufficient information about dual credit opportunities in their high schools?
7. **Students served:** Are dual credit programs available to all demographic student groups, and what are districts and postsecondary institutions doing to ensure that this directive is being met?

Criteria for Identifying Emerging Practices of Promise

- 1) Creating an effective high school/IHE partnership
- 2) Offering courses that help students achieve their degrees and certificates
- 3) Increasing teachers' knowledge and credentials
- 4) Monitoring student readiness and quality of instruction and coursework
- 5) Offering student advising services at high schools and IHEs
- 6) Communicating effectively with parents and students
- 7) Serving all demographic student groups

Emerging practices with promise¹⁴

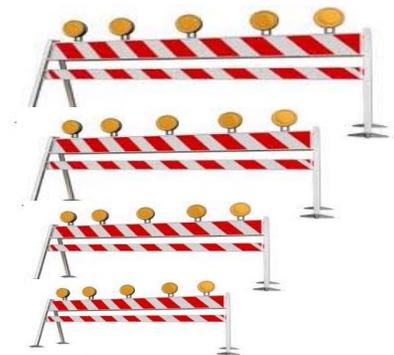
There is no guarantee that *College Credit Plus* will be implemented. In fact, students of organizational behavior and public policy advise that there are multiple challenges to the effective implementation of any policy. Applied to *College Credit Plus*, they include the following:

Hurdle #1: Districts, schools and their higher education partners may not **want** to implement *College Credit Plus*.

Hurdle #2: Districts, schools and their higher education partners may not **know** what the policy expects them to do.

Hurdle #3: Districts, schools and their higher education partners may not know **how** to implement the program.

Hurdle #4: Districts, schools and their higher education partners may not have the **capacity** to carry out the program.



¹⁴ The identification of emerging practices of promise – and more broadly, the assessment of schools', districts' and their higher education partners' efforts to implement *College Credit Plus* – is based on surveys of secondary administrators responsible for the program's implementation, focus groups with high school advisors and counselors, and interviews with secondary and postsecondary program administrators during spring 2015.

Based on surveys and conversations with Central Ohio school and college officials, and on focus groups involving high school advisors and counselors, the following observations were noted:

- There doesn't appear to be any serious resistance to *College Credit Plus* among those who are responsible for implementing the initiative (Hurdle #1). People understand it and they want it to succeed (Hurdle #2), although some wonder if a new statewide directive is needed given their existing dual credit offerings and opportunities.
- Secondary and postsecondary personnel have concerns about how their efforts to implement the initiative will be measured. They have questions about short- and long-term goals, and most importantly about the **metrics** that will be used to assess progress and ultimate success.
- School and college personnel have a range of questions about how to implement *College Credit Plus*, particularly given what they consider to be an aggressive timeline (Hurdle #3). And they are curious about how others are addressing the issues that perplex them. This curiosity has led to numerous requests for some sort of information clearinghouse – either regionally or statewide.
- Capacity is a serious issue, perhaps the most serious hurdle that schools, districts and institutions of higher education are trying to overcome (Hurdle #4). Implementers report that there is so much to do – e.g., put the mandated 15 and 30 semester-hour pathways in place, set up partnerships with other participating organizations, define financial relationships and establish a sustainable program infrastructure, develop curricula, select and acquire textbooks, identify and qualify teachers, orient parents and students, set up and offer advising services and more – and so little time to do it.

What innovative practices are emerging in schools and districts across Central Ohio? What are area colleges and universities doing to make new dual credit experiences a reality – and more broadly, to improve students' readiness for college and careers? And what are out-of-region or statewide initiatives adding to *College Credit Plus*' promise of expanded dual credit opportunities and increase college and career readiness?

The good news: there is a lot to be impressed by on all fronts. Consider, for example:

- ▶ **Hilliard City Schools** has been particularly aggressive in developing partnerships with area colleges and universities. The Academy at The Ohio State University has created an opportunity for Hilliard students to register for one of their "first year" online courses, and students may take courses on the main campus in a traditional college setting. Through the **Kenyon Academic Partnership**, students can take courses – from Chemistry, Physics and Literature to German, French, Spanish and Liberal Democracies of America – and taught at district high schools by Hilliard teachers who are approved by Kenyon College to serve as adjunct instructors.

At the district's **Innovative Learning Center**, Hilliard students can take "College JumpStart" courses taught by certified adjunct instructors approved by Columbus State Community College, or taught by the college's full-time faculty. Yet, perhaps the district's more innovative program is the **Hilliard Health Academy** for the college-bound students interested in pursuing a career in a medical-related field. A partnership with Tolles Career and Technical Center, this program is a two-year experience for students in

grades 11 and 12. Its purpose is to expose students through coursework and authentic internship experiences to a variety of high-demand, health-related careers in three areas: Medical Assistant, Medical Administrative Assistant and EKG Technician.

- ▶ **Marysville's Early College High School** is a unique study program designed to prepare students for college and careers, while focusing on collaboration, communication, perseverance and problem solving. The high school has a specialized STEM curriculum that is delivered through traditional coursework, plant tours and know-how sharing sessions. Honda of America, Mfg. actively works with school officials in configuring study spaces, selecting lab equipment, picking instructors and creating the curriculum for the manufacturing education pathway. The early college high school was established in 2014 through a grant from the state's Straight A Fund and since has developed in collaboration with Columbus State Community College, Honda, Ohio Hi-Point Career Center and the Union County Chamber of Commerce.
- ▶ **Columbus City Schools** has partnered with **DeVry University** to establish the **DeVry University Columbus Advantage Academy (DAA)**, a tuition-free program that gives high school students a head start on college and careers. The district's dual-degree, early college program, DAA targets a cohort of rising eleventh graders, giving them the opportunity to complete two years of college credit and obtain an Associate of Applied Science degree in Web Graphic Design while simultaneously earning a high school diploma.

Once students are selected for the program, which creates a dual enrollment technology-based learning environment that prepares learners for the innovation economy, they attend DeVry's Main Campus full-time for their last two years of high school and take all program coursework on DeVry's campus taught by university faculty. Students follow DeVry University's campus schedule and meet during the school day as a cohort. DAA is designed to serve up to 50 students each year (25 juniors and 25 seniors). Students receive an extended COTA bus pass to meet transportation needs to campus and other high school-related activities. The DAA program's graduation rate is over 90%.

- ▶ **South-Western City School District** has established **The College Academy**, which provides junior and senior students an opportunity to take college courses while completing high school requirements in an innovative half-day approach. Beginning in fall 2015, students will have the opportunity to earn more than 30 college credits upon graduation through a dual-enrollment partnership with Columbus State Community College. The program will offer three distinct learning tracks: technology, liberal arts and mathematics, and will be offered in the district's new Accelerated Learning Center at Central Crossing High School.

To ensure that students at all of the district's high schools have access to this innovative program, shuttles will transport students to Central Crossing. Morning and afternoon half-day classes will be introduced during the second year.

- ▶ **Dublin City Schools** has developed a series of College and Career Academies that give K-12 students an opportunity to explore and nurture their passions – and to develop marketable skills, be more experienced and ready to join the workplace. Funded by a Straight A Fund grant from the Ohio Department of Education, these Academies reflect

Dublin's emphasis on STEM learning and provide pathways in (1) biomedical research, (2) business, (3) engineering and (4) information technology.

Illustrative of Dublin's "academy" approach:

- The K to Career IT Academy gives students in grades K-12 a chance to connect with professional mentors online, under the supervision of a teacher. Mentoring gives students hands-on, real-world experience that helps them explore their interests and identify education and workplace options. Juniors and seniors at all three Dublin high schools can take college-level IT and computer science courses. Real-life experience and mentoring from industry experts equip students with college, career and life skills. Also, dual enrollment means both high school and Columbus State Community College credit for students. Through a Columbus State, Tolles Career and Technical Center and Dublin City Schools partnership, students receive IT-specific training, on the job experiences and a nationally recognized certificate upon completion.
 - The Dublin Biomedical Research Academy is open to students interested in pursuing a career in the medical field. In this half-day Academy, students use a problem-based approach to develop a strong foundation into the practices of biomedical professionals through regular guest speakers, field trips and case studies – all culminating with an authentic biomedical research investigation.
- **The Ohio State University** has developed a number of "niche" partnerships with specific schools and cohorts of students. One such partnership is with the **Metro STEM Early College High School**, where the school's college-level courses are most often taught on the OSU campus, always by college instructors, as high school students sit alongside traditional college students. The university also has **one-course niche partnerships** with a range of high schools (e.g., students from St. Charles can take advanced Latin, while students from Avon Lake can take German courses via distance).

Finally, Ohio State's newest niche program is part of the **Straight A-funded College Ready Ohio**, which offers *College Credit Plus* courses **online** to its high-school partners. For *College Credit Plus* purposes, courses will be rolled out over time, beginning with Psychology 1100 during the 2015-16 school year.¹⁵

- **Whitehall City Schools** have created a 15-hour Health Information Management pathway for students interested in medicine, business and computer technology. Developed in collaboration with Columbus State Community College, this pathway can lead students to careers that can include reimbursement, facility planning, marketing, risk management, quality assessment and research. This 15-hour pathway will be phased in during the 2015-16 school year. In 2015 students will be able to enroll in Advanced Medical Terminology (2 semester hours); in 2016, they will be offered Computer Fundamentals (2 hours) and Computer Concepts and Applications (3 hours). All courses will be delivered at Whitehall Yearling High School. Some courses will be led by Columbus State staff using online technology.

¹⁵ For more information, see <https://collegeready.osu.edu/college-credit-plus>

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- ▶ College and career readiness is the focus of two new regional initiatives: ***Innovation Generation and Data Strong***.
 - The ***Innovation Generation*** initiative is affiliated with the national Pathways to Prosperity Network and supported by the Harvard Graduate School of Education and Jobs for the Future. The initiative, which received a total of \$14.4 million in funding during the state of Ohio's first Straight A Grant cycle, establishes career pathways into vital industry sectors in the Central Ohio area (e.g., health care, advanced manufacturing and business/logistics). School districts, higher education institutions and businesses will work together to help students earn the credentials needed to fill some of central Ohio's fastest-growing jobs. Successful completion of the program provides students with industry-specific learning and expands the next steps students will be able to take once they earn their high school diploma. Participants will be taking college-level course work that will allow them to graduate high school with specialized certifications and progress toward an associate degree.
 - ***Data Strong***, a consortium of 17 Central Ohio school districts, the Educational Service Center of Central Ohio, Battelle for Kids and Columbus State Community College, is working to achieve the goal of 60% of working adults with a postsecondary credential. The consortium is using a state Straight A Fund grant to design and deploy an integrated data-driven infrastructure to generate regional K-12, higher education and economic development performance data to enhance strategic decisions for matching organizations, employers, schools and students to high-growth industries. This initiative supports those school districts that are involved in the Innovation Generation initiative. It provides some much-needed technical support and creates a data resource that will be invaluable to efforts to help students succeed in college and careers.
 - ▶ ***The Charles School at Ohio Dominican University*** is a five-year Early College High School in partnership with Ohio Dominican University. As a public, community high school chartered by the state of Ohio, The Charles School is tuition free. Students graduate with a high school diploma and up to 62 hours of college credit, the equivalent of an associate degree.

The Charles School is the first Early College High School in the country to combine an accelerated academic program with hands-on experiential learning to bridge the gap between high school and college. As part of the fully accredited curriculum, The Charles School and Ohio Dominican University provide guidance and support to students through high school and the first two years of college work, guided by teachers and professors who are certified in their academic disciplines. After graduation from The Charles School, students may choose to continue their education at Ohio Dominican University or another institution. They will find that they have gained a competitive edge for college success while saving time and money.

- ▶ To simplify and have a common approach to the exchange of funding for *College Credit Plus* courses, the ***Educational Service Center of Central Ohio***, in collaboration with Columbus State Community College and participating school districts, helped guide the brokering of a single agreement for program cost.

ESCs serve as College Credit Plus facilitators . . .

*Like its Central Ohio peer agency, the **Educational Service Center of Cuyahoga County** facilitates memoranda of understanding (MOUs) between higher education institutions and school districts in support of their College Credit Plus offerings. In addition, the ESC works closely with regional colleges and universities to offer the specific graduate content area courses needed by secondary teachers to obtain adjunct faculty status required to teach College Credit Plus courses in their districts. Also, graduate courses are offered in a variety of specific licensure areas for both administrator and teacher certification.*

This is an invaluable and extremely important service to the region since it systematizes and clarifies course offerings that result in approved pathways toward a degree for students, and provides the graduate level courses in content areas for educator certification or eligibility for adjunct status. By serving as a regional provider, or “brokering” these courses for teachers, the ESC supports efforts to extend the availability of appropriate content courses in all subject fields, making more course offerings available for students in their home school. The ESC also “houses” and is a site center for some of the higher education graduate coursework – both face-to-face and blended – which increases convenience, ease of enrollment and attendance.

- ▶ In Central Ohio and elsewhere in the state, the two-year college sector, especially, has been actively involved with most school districts in their service area and have designed appropriate coursework in multiple formats. Most of the dual credit pathways consist of Transfer Assurance Guide (TAG) college courses that are guaranteed to transfer and apply to a degree program and represent the first two semesters of general education that’s required for all majors and degrees. This is an important step since it puts students in good stead for advanced coursework toward a degree program.

To meet the growing demand for more high school teachers with the required credentials to be approved as adjunct faculty members to teach college classes in their school buildings, universities and colleges across the state have designed and are beginning to launch new programs for this purpose. At least 12 public and private universities and colleges have developed programs across a number of academic disciplines, using diverse delivery modalities including on-campus (i.e., face-to-face), online, off-site and blended approaches. It is anticipated that these offerings will continue to expand to meet the needs of teachers and school districts. **See Appendix B for a summary of the teacher training offerings as of May 2015, according to the Ohio Department of Higher Education.**

Projections for 2015 College Credit Plus courses . . .

In late spring 2015, a survey was conducted of the four institutions of higher education that are most active in Central Ohio's College Credit Plus program. Two of the institutions were two-year public colleges (Central Ohio Technical College and Columbus State Community College), while the other two were four-year private institutions (Kenyon College and Ohio Dominican University).

As of mid-June 2015:

- *The four institutions of higher education identified above had arranged for 450 classes during the 2015-16 school year. Some institutions anticipated that additional classes would be scheduled for spring semester 2016.*
- *Sixty percent (272) of the scheduled classes will be taught on high school campuses by high school teachers who are certified as adjunct college faculty.*
- *Approximately 30 percent (131) of the classes will be taught at high schools by college faculty.*
- *Seven percent (31) of the classes will be co-taught by high school teachers under the supervision of a college faculty member. The delivery mode for the remaining classes is not presently known.*
- *Registration data are not currently available for those students traveling to a college campus to take College Credit Plus courses.*

- ▶ Ohio's FY16-17 biennial budget as enacted calls for up to \$10 million to be used by the Departments of Education and Higher Education to support graduate coursework for high school teachers to receive credentials to teach *College Credit Plus* courses. Priority will be given to educational consortia that include economically disadvantaged high schools in which there are limited or no teachers currently credentialed to teach *College Credit Plus* courses.

Program Rich. System Poor.

On the ground, there's a lot to be impressed with across Central Ohio. That is confirmed by the emerging practices of promise highlighted here.

School, district and college personnel have been working diligently – getting ready for the launch of *College Credit Plus*. Yet, in the process, they have rediscovered that any effective college and career readiness initiative requires the building of a true “system” that takes Central Ohio beyond its **silos** approach with a series of innovative – and often times promising – programs, but without the **connections** that provide structure, allow initiatives to work together and maximize efforts to help students succeed.

It's all a matter of connecting the dots. The last section of this will provide an expanded vision and recommendations for action in Central Ohio.

Eliminating Opportunity Gaps by 2020 . . .

Like a number of initiatives in Central Ohio, the Puget Sound Coalition for College and Career Readiness is focused on building a seamless transition from high school to college to career across the Puget Sound area. The coalition's shared vision is to increase both the number and percentage of students that graduate from high school, enroll and persist in college and graduate from higher education able to secure a family wage job and/or career path.

The Coalition's membership includes school districts and seven community and technical colleges in the state of Washington's King County, Pierce County and Bainbridge Island in Kitsap County. Contributing partners are the University of Washington, Community Center for Education Results and the Washington Office of Superintendent of Public Instruction. Members are committed to collective action across the K-12 and postsecondary sectors to address educational opportunity gaps in measures of progress associated with student race, ethnicity, language and income, including: (1) increase high school graduation rates; (2) increase college-going and persistence rates; (3) decrease the number of students having to take developmental college courses; and (4) increase college completion and job placement rates, with particular attention to family wage jobs.

The Coalition is led by the Puget Sound Educational Service District. For more information, see <http://coalition.psesd.org/>

Charting a broader course

Maximizing students' readiness for college and careers

Any effective college and career readiness initiative must reflect a simple fact: a number of factors influence student preparation for and eventual participation in postsecondary education. Research and experience suggest that four factors are most important in shaping a region's college-going culture.

Aspiration

A range of “mindset issues” leave far too many students believing they should not, could not and never will go to college. For these people, including many adults, the aspiration to attend and be successful in learning beyond high school has been weakened, often at an early age. They often receive little encouragement from parents and families since many of them didn't go to college either – and often don't see the need for it or don't think it's possible.

Academic Preparation

Inadequate preparation is one of the main reasons so many students do not end up with a higher education degree or credential. Too many students don't graduate from high school ready to succeed in college or careers. The two-fifths remediation rate – much higher for the state's community colleges – attests to this lack of academic preparation.

Availability

The accessibility of college and university programs – the convenience of times and locations – can be a barrier for potential students. Ohio benefits from a sufficient number of two- and four-year institutions (both public and private) that, in addition to main campuses, have regional, off-campus, outreach and online degree programs. Yet, there exists a need for expanded accelerated learning opportunities such as dual enrollment.

Affordability

The cost of attending college in the form of tuition, fees and other expenses is a fourth factor. Tuition is a daunting barrier for many students, but keeping tuition stable has been a priority for the state in recent years. Also, Ohio's Articulation and Transfer program makes it possible for students to begin their postsecondary education at any public college or university in the state – including the lowest cost institution near home – with the guaranteed transfer of their TAG-course credits.



Systematically addressed, providing or improving these “four A's” can be the key to expanding college and career success to tens of thousands of Central Ohioans. Otherwise, formidable barriers for both students and the region will remain in place.

Observations about accelerated learning

For those committed to maximizing the college and career readiness of substantially larger numbers of Central Ohio students, this analysis has led to several observations.

- School, district and higher education personnel with responsibility for implementing *College Credit Plus* have worked diligently to prepare for the program's launch. They are committed to its success – and increasingly, they are discovering that expanded readiness requires a systemic effort – something broader than *College Credit Plus* – that takes Central Ohio beyond its “program rich, systems poor” approach.
- One-size-fits-all solutions are not the answer when it comes to giving more young people postsecondary learning opportunities. Flexibility is needed in both program design and execution – and as the emerging programs of promise highlighted in this report confirm, that kind of flexibility is both permitted and encouraged by *College Credit Plus*.
- School district size (i.e., the number of students and buildings) makes a difference when it comes to carrying out programs like *College Credit Plus*.
- Small school districts do not have the “economy of scale” that permits larger districts to build expanded postsecondary opportunities around a large number of qualified students and multiple high school campuses. To the contrary, they often have few students who are eligible to participate and no qualified faculty who meet adjunct status. In addition, there may not be any institutions of higher education nearby with which to partner – and in those cases, even the former PSEO approach is not a viable option. Finally, the cost associated with attending college classes can be cost prohibitive for smaller districts. Conversely, large districts have challenges in complying with *College Credit Plus* for logistical reasons (i.e., number of college partners, transportation, location, communication and more). And given that a larger group of students is eligible for college classes, there is a large outflow of dollars to participating institutions of higher education.
- When it comes to implementing the *College Credit Plus* program, district leaders, school advisors and postsecondary administrators point to serious capacity issues, mostly the result of an inadequate phase-in timeline. Schools and districts are trying to implement on the “fly” as they search for higher education partners, build partnerships, resolve curriculum issues, set up advising systems, build faculty resources (often without an adequate infrastructure), communicate with parents and families and more.
- Looking ahead, funding for *College Credit Plus* may be a problem. School and district personnel have expressed concerns about the program's cost structure, particularly in situations where a large number of students participate – and where they take courses at the highest cost level (\$160). Given many districts' zero-sum budget environment, one of *College Credit Plus*' unintended consequences could be a shift in resources away from other programs to make accelerated learning opportunities more affordable for high

academic achievers who are already college and career ready. This leaves fewer resources for students who need extra support to graduate – and to graduate on time.¹⁶

- With a focus on accelerated learning, *College Credit Plus* misses some important levers that are available – and should be used – to prepare and ready students for life after high school. To move the needle on students’ participation in some form of postsecondary education – and students who are ready to succeed in careers – greater emphasis needs to be put on more of the elements in the **college and career readiness typology** at the right. Greater priority must be given to college and career awareness initiatives, beginning in the primary and middle school years. Learning supports for students who are struggling to achieve – and to graduate from high school – must be broadened. And efforts to align high school and postsecondary curriculum must be stepped up.¹⁷



While *College Credit Plus* promises improved accelerated learning opportunities for all demographic groups of students, it does not address explicitly the challenge of improving college and career readiness services for students with exceptionalities (i.e., students with physical disabilities, behavioral disorders, intellectual disabilities and learning disorders, and other medical conditions and disorders). While considerable progress has been made in recent years, students with exceptionalities graduate from high school and participate in postsecondary programs at lower rates than the general population. A variety of support services – including academic coaching and help with time management, social skills and self-advocacy – are needed to enhance college and career readiness opportunities for students with exceptionalities.¹⁸

Similarly, the program does not address the learning challenges faced by an emerging and typically underserved population of English-Language Learners (ELLs). Non-native English

¹⁶ To learn more about how other states are working to remove financial barriers by adopting funding models that place dual enrollment tuition costs with the state or district instead of the student, see Jennifer Zinth (2015). *State Approaches to Dual Enrollment*. Denver, Colorado: Education Commission of the States.

¹⁷ The Ohio Mathematics Initiative – with its emphasis on improving the alignment between secondary and postsecondary mathematics content and instruction, and on raising postsecondary success rates in entry-level courses by developing pathways in mathematics that are aligned to students’ academic programs of study and by improving instructional delivery mechanisms – offers an alignment model for other disciplines to follow. For information about effective alignment practices, see <https://www.ohiohighered.org/mathematics-initiative>.

¹⁸ One such initiative is the Educational Service Center of Central Ohio’s *Autism College Transition (ACT) Program*, which provides direct instruction and academic coaching designed to develop independence for aspiring college students. Launched in partnership with Columbus State Community College in 2008, the program is helping students develop the tools that are required for success in college, including organization, time management, social skills, communication and self-advocacy. For more data and references on services and programs in this area, see College and Career Readiness and Success Center at American Institutes for Research (2013), *Improving College and Career Readiness for Students with Disabilities*, March 2013.

speakers often struggle academically and are less likely to complete high school and enroll in a postsecondary program. Yet, most of these students can achieve at high levels if schools effectively address socio-cultural issues and present ELLs with challenging curricular content. *College Credit Plus* can be an enormous opportunity for these young people.

It is imperative that Central Ohio schools, districts and their higher education partners develop college and career readiness policies and practices to ensure that ELLs and students with disabilities are not left behind. Only by addressing this issue can we equip them with the knowledge and skills to fulfill their individual potential and lead full and independent lives.

The Law of Thirds . . .

By design, College Credit Plus addresses the learning needs of approximately one-third of Central Ohio's high school students – the “top” third of high school students who are on a trajectory for graduation and are “qualified” to begin college-level work. But this won't move the needle substantially on postsecondary participation

But what about the other two-thirds – the one-third who will graduate, but not move directly on to college (although some will eventually take college courses and may earn a certificate or degree), and the one-third who are struggling simply to earn their high school diploma?

Clearly, these are rough estimates, but they are the basis for Peter Smith's “Law of Thirds,” which suggests that the education system has done a generally good job of serving the needs of the “top” one-third of learners – those who have the means and/or the skills to access and navigate the formal structures of both the K-12 and college worlds. In contrast, the other two-thirds of learners either drop out along the way or – in a much larger number of cases – graduate from high school without continuing on to additional structured learning.

*For Smith, this represents “wasted talent” that has dire consequences for both individuals and the community in a global economy that values talent above everything else. He asserts that with so many people effectively **excluded** from the benefits of postsecondary education, and with an ongoing need for more skilled and capable workers, educators must recognize each individual's personal learning capabilities and then engage her or him from the earliest years using innovative and enriched teaching and learning methods.*

In other words, greater resources should be targeted to those who are ignored by College Credit Plus. To reach the middle-third, Smith proposes the creation of Colleges of the 21st Century (C21C). Instead of focusing on exclusion, with admission standards as the gate, he writes, “For the first time in history, we have the knowledge and the tools available to educate through new designs,” including emerging information technology.

*All of this says that College Credit Plus is **a necessary, but not sufficient response** to the challenge of improving students' college and career readiness and success. Going beyond the vision of the state's accelerated learning initiative, it points to the importance of regional systems of career pathways that are aligned with key industry sectors to harness Central Ohio's wasted talent and allow the region to compete effectively on the global stage.*

*For more information, see Peter Smith (2010). **Harnessing America's wasted talent: a new ecology of learning**. San Francisco: Jossey-Bass.*

Recommendations for action

Ohio has long been a leader in the number and quality of education programs designed to address specific shortcomings of our current education continuum. Too often, however, these programs have reflected a “silo” approach focused on specific problems without connections to other initiatives. They have been “add-ons”, but have not, in most instances, really changed existing practices or structures. More to the point, our “tinkering” has not resulted in large changes in the number and percentages of high school graduates who participate and succeed in postsecondary education.

Even with the innovation that *College Credit Plus* offers schools, districts, institutions of higher education and their students, it will take more than college credits earned through accelerated learning to increase substantially Ohio’s college-going rate. As data suggests, most of the students earning dual credit under *College Credit Plus* probably would have gone on to college without it.

So, if a significant dent is to be made by increasing student participation in some form of postsecondary education, a different ***mindset*** and ***structure*** will be required, and a much more daring and comprehensive approach must be taken that begins much earlier and eliminates historical barriers to student educational mobility and success.

*College Credit Plus offers a firm foundation upon
which to build other strategies – connected strategies – that go beyond
just tinkering to form a new model for participation and success.*

There are many reasons why educators and education policy leaders have failed to unlock our talent, in Central Ohio and across the state. Yet, there is growing evidence that points to the importance of two factors.

1. A range of ***mindset or cultural issues*** leave far too many students disconnected from college early in their school careers, often limiting ongoing academic supports and destroying the aspiration to be successful in learning beyond high school. This has led some observers to conclude that many students are being sorted out by the dominant education model – in both the K-12 and postsecondary sectors -- that focuses on exclusion. The results are clear: this model uses a “success ceiling” to selectively keep talented people out by making postsecondary education, for those students, psychologically, physically, experientially, academically and financially remote.
2. The ***prevailing structures of American education do not*** effectively move a majority of students through high school and into college; nor do they do a particularly good job of preparing many students for the workplace. This raises the possibility that our inability to get better results may have more to do with the model being used than with the capacity or willingness of students to learn. And it suggests that the way schools and colleges are being run may inhibit learning and frustrate many students’ efforts to reach the finish line.

These two factors and the conclusions to which they lead speak directly to the relevance of aspiration, academic preparation, availability and affordability to any discussion of Central Ohio's college-going culture. And all of these factors are embedded in the consideration of action recommendations that follows.

Recommendation

#1

Establish Goals and Metrics:

Central Ohio high schools and districts, along with their higher education partners, should establish specific annual goals for student academic performance, participation and success in post-high school education; and they should agree on a limited number of metrics for evaluating progress toward those goals.

“If you don’t know where you’re going, you’ll probably end up someplace else.” This was Yogi Berra’s counsel more than a half-century ago. In his own unique way, Yogi was right. And he illustrated the importance of generating an imaginable picture of the future and a work plan for getting there. Think of it as a roadmap to success.

Central Ohio high schools and districts, along with their higher education partners, should heed Yogi Berra’s counsel by developing a set of clear goals and metrics such as the following:

Goal: Increase the number of students who are prepared for and successful in postsecondary education through enhanced preparation, high school completion, college persistence and college and career success in Central Ohio

Metrics:

1. Percent of students who graduate from high school ready for college and workplace
2. Percent of students who participate in accelerated learning while still in high school
3. Percent of students who graduate and enroll in postsecondary programs remediation free
4. Percent of students who complete postsecondary programs by receiving a degree, earning a certificate or transferring to another college or university
5. Percent of students who stay in Central Ohio and achieve success in the region’s workplace.

Recommendation

#2

Create a Regional Information “Hub”:

A Central Ohio Center should be created to serve as an information and data clearinghouse – or “hub” – for the region’s schools and districts, and their higher education partners, to build capacity and support regional collaboration on college and career readiness issues.

The Center’s role would be to support the efforts of schools, districts and institutions of higher education to examine and establish both policies and practices that lead to improved student preparation for and success in college and careers. As an information and data clearinghouse, the Center would:

- Promote a data system that documents student progress toward education goals, including progress toward postsecondary participation
- Provide a forum that brings schools, districts and institutions of higher education together to exchange information, practices and data related to the development of the 15- and 30-hour college (dual credit) pathways and other forms of accelerated learning
- Share promising and best practices in counseling students and advising them on the selection of learning options beyond high school
- Support continuing efforts to align secondary and postsecondary curricula, in part by facilitating presentations to districts and schools by college and university representatives about their achievement expectations for students entering early college and postsecondary experiences.
- Develop a regional community of practice by creating a clearinghouse (i.e., interactive website) for college and career readiness activities
- Host symposia and professional development sessions to address the needs of schools, districts and their higher education partners in the areas of accelerated learning and college and career readiness
- Provide high-quality technical assistance to schools, districts and institutions of higher education to build their capacity to design, implement, support and sustain accelerated learning or other college and career readiness initiatives
- Build the instructional capacity of districts, schools and institutions of higher education through the use of technology to support project-based learning in the classroom, and by connecting industry and community partners with teachers and students
- Develop an “economy of scale” around regional compacts – among multiple schools and school districts – in offering advanced educational offerings

Recommendation

#3

Improve Academic and Career Counseling Services:

Schools, districts and their higher education partners should improve academic and career counseling services that, as part of the educational process, enhance student learning, expose students to career opportunities, help put “Opportunity Youth” back on track in school and life, and facilitate learning beyond high school by all students – particularly minority and low-income youth and first-generation students from families without a college-going tradition.

Our educational system is a tangled set of opportunities and pathways that’s becoming even more confusing with added programs such as dual credit options. Choosing a college, selecting a course of study and launching a career path are not easy choices for anyone. And they are particularly difficult for students who lack parental support, are low-income youth and first-generation students from families without a college-going tradition. Many of the students who need the most support often end up receiving the least guidance in answering questions that could change their lives: *Where can I get the knowledge and skills I need to get a good job? What career path should I choose?*

Students need real-time information about postsecondary and career paths – information that is easy to understand and use and will guide them in making appropriate choices. They want effective and well-equipped advisors and counselors who can confirm that learning beyond high school will offer real returns on their investment of time, money and resources.

Unfortunately, the advising and counseling offices on many high school campuses are understaffed and under-resourced. School counselors are frequently under increased pressure to coordinate and administer state testing protocols and are asked to advise even larger numbers of students. In addition, resources that could provide advising assistance are shrinking rather than growing. Innovative forms of cost-neutral assistance to guide students must be sought through the use of technology, management systems, peer advising and other creative options.

Closing Franklin County’s “Opportunity Divide” . . .

In January 2015, Jobs for the Future released the results of its study, commissioned by the Columbus Foundation, of the education and employment challenges facing young adults, age 18 to 25, who are not college bound. This “Opportunity Youth” population is a critical segment of Franklin County’s workforce – tens of thousands of young adults who are struggling to get by, start a career, or go to college. Their numbers are staggering:

- **No college experience:** *An estimated 51,000 Franklin County youth, age 18 to 24, do not have any college experience – one-third lack a high school diploma or GED.*
- **Living in poverty:** *An estimated 44,500 Franklin County youth 18-24 are below the federal poverty level. Franklin County households headed by adults younger than 25 have a median income of just \$21,561 – far lower than any other age group in the local labor market. One in four young adult households earn less than \$10,000 per year, including 40 percent of young African-American households.*
- **Not working:** *An estimated 80,000 youth, age 16 to 24, are not working. This includes more than 17,000 youth who are actively searching for a job, for an unemployment rate of 17 percent. In all, only 62 percent of youth are participating in the labor force – the lowest among Franklin County’s working-age population, ages 16–64.*

According to Jobs for the Future, Opportunity Youth have different needs and respond to different strategies than other at risk populations, even if they share similar risk factors. Without adequate bridge programming, young people lack the educational background and skill levels to succeed in career pathway programs. Some may lack the stability in their lives and maturity to persist and complete. Young adults often need additional support that older adults may not. Therefore, it is critical that education and employment strategies target Opportunity Youth specifically to address their unique needs and build on their unique assets.

Conclusion: *Jobs for the Future asserts that these young adults have “leaked” from the education to workforce pipeline. Reconnecting them to opportunity will require genuine engagement and an unwavering commitment of Franklin County’s civic, business, human service and education leaders as well as youth and their families. Just as important is a willingness from all stakeholders to take on different approaches to school and work.*

SOURCE: Allstadt, D., Ndiaye, M., Wright, M. and Sylla, D. (2015). *Opportunity Awaits: Reconnecting Franklin County Young Adults to School and Work*. Boston: Jobs for the Future

Ohio's FY16-17 budget as enrolled may provide some encouragement in this area. It calls for a strengthened counseling system in Ohio's schools and mandates setting first-ever standards for school counseling that will recognize this important and demanding profession with a high bar for performance so students can have access to the career and higher education advice they need. Dedicated counselors may no longer be overloaded with administrative tasks that do not directly benefit students.

In Central Ohio, as this report is being completed, the I KNOW CAN program a non-profit college access organization working in support of Columbus City Schools students, stepped up its advising services by creating 15 new advising positions. With plans to place an advisor in each Columbus high school, I KNOW I CAN's action points to the kind of public-private partnership that can materially change a district's advising corps.

Nothing is more important to these students than advising; nothing trumps advising. Educational pathways and associated offerings are confusing and students need the opportunity to consider which educational opportunities are best for them. A new focus on advising and career exploration – and the resources to accomplish these crucial functions – must be addressed.¹⁹

¹⁹ Lending support for this recommendation, Caralee Adams' *Education Week* article (July 16, 2012) analyzes the barriers to community college success, based on focus groups involving students who were currently enrolled in a two-year institution. Her findings were part of *Student Voices on the Higher Education Pathway*, which is part of the Bill & Melinda Gates Foundation's Postsecondary Success Initiative, Completion by Design, in partnership with New York City-based Public Agenda and West Ed, a research and development agency. According to Adams, five themes emerged from the focus groups:

- Students wanted more exposure to career possibilities so that they could make better-informed decisions about the goals they set out to achieve and the steps necessary for success.
- Most believed that the student success and developmental education courses intended to bring them up to speed were not offered in a way that helped them succeed.
- Participants believed that having clear goals, and being in programs with well-defined pathways, gave them a greater chance of persisting, completing, or transferring.
- Advisers, counselors and faculty members who offer support and guidance that is accurate, accessible and tailored to students' educational and career goals are in high demand and can be hard to come by.
- Although students know colleges offer a wide range of services, they report that finding the specific information or services is difficult.

Together, these five themes provide a better understanding of why students don't reach the finish line.

Central Ohio advisors and counselors speak . . .

A number of Central Ohio school district advisors, counselors and education leaders participated in focus groups during the spring of 2015. Several themes emerged from these conversations. They were:

- *Many students don't think they are the "college-going type." Their families and communities place little value on education. These students lack the structure that points them toward learning beyond high school and they lack the role models who are examples of the benefits of education. They are held back from attending college or other career/technical training program by a low sense of personal esteem, little parental support, lack of interest in education or a lack of concern about the future.*
- *For many students, the biggest hurdle to postsecondary education is a fear of the unknown and a sense that they won't be successful. It's easier just not to try.*
- *Many students discover along the way that they're not academically ready for college – often much to their surprise. So they simply give up because they're so far behind.*
- *A number of families and students living in poverty experience frequent school changes and live a transient existence – as students move from school to school, community to community, or family to family; this mobility is a barrier to completing high school and any notions of postsecondary advancement.*
- *In too many cases, students don't have access to quality career counseling; and it comes too late when it is available. In addition, many parents have an aversion to career and technical education; insisting that their children are "going to college."*
- *While cost is often cited as a reason for not going to college – particularly by students who lose parent support when they leave high school – often it is not the primary barrier to going directly to college. Many students are aware of the availability of financial aid and the least cost option of starting at community colleges. Counselors appear to know that almost all credits will transfer and apply to a major and degree at a public four-year institution. Counselors observed that students from low-wealth families can obtain Pell Grants and other funding and attend community colleges almost free. It's middle class students, they said, who usually have to pay the full cost unless they qualify for merit-based aid – and their parents are adverse to accumulating debt for higher education. They said College Credit Plus will help these students by providing up to a year's worth of free classes.*
- *"Life just happens" explains why many students don't end up going directly from high school to some form of postsecondary education. This means that everyday events seem to get in the way. Students may aspire or even plan to go to a university or local community college but such designs fall victim to immediate need or concerns. For some students, the need to contribute financially to the family coffers outweighs college plans. For others, a part time high school job expands to a full time, \$12 an hour job after graduation. Short-term goals trump the deferred gratification of going to college and the benefits offered "down-the-road."*

Recommendation

#4

Create New Learning Structures:

Central Ohio schools and districts and their higher education partners should work collaboratively to devise and experiment with new learning structures that foster an education culture and move significantly larger numbers of students from early learning through high school and into postsecondary programs; and that give all students access to learning pathways that are regionally relevant, transparent and achievable – and that lead to degrees, certificates and other credentials with value in the marketplace.

Central Ohio cannot tolerate education structures and processes that allow any students to leave school and enter the adult world without the creative, critical thinking, problem-solving and work-related skills they will need to become productive, responsible citizens. This calls for action to end the pattern in which too many young people drop out of school before earning their diplomas, too many graduates don't enroll in any structured learning beyond high school, and too many end their formal education without the knowledge and skills required to compete successfully in the global workforce.

Over the years, efforts to improve American education have come under many labels – e.g., education reform, systemic change and education restructuring, just to name a few. Recommendation #4 calls for a **transformation** that involves actions to create new education structures and processes that work better for students.

To be effective, this restructuring must be:

- Based on a model that emphasizes **personalized, competency-based, anytime/anywhere learning pathways for students** to attain the knowledge, skills and dispositions that are linked to student achievement and lifelong success
- Built around pathways that provide **work-based learning opportunities** (e.g., project-based learning, internships and apprenticeships) so students get the skills and work habits of real-work settings, and the value of what they are studying in school is reinforced
- Connected to a **culture** that makes college and career readiness, not just a high school diploma, the goal for every K-12 student
- Focused on **transformational change**, not a series of system tweaks like those that have yielded limited results in recent years

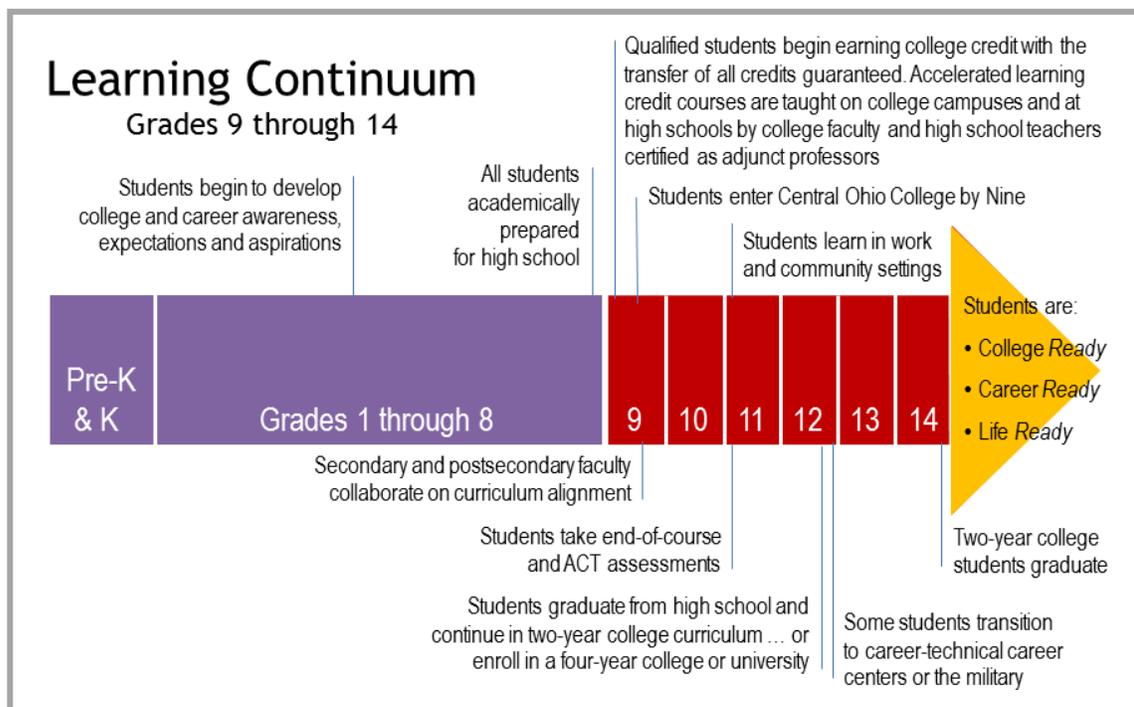
Perhaps Stephen Covey explained it best when he wrote:

“If we want to make relatively minor changes in our lives [and institutions], we can focus on our attitudes and behaviors [our prejudices and discriminations]. But if we want to make significant, quantum change, we need to work on our basic paradigms. To try to change our attitudes and behaviors does very little good in the long run if we fail to examine the basic paradigms from which these attitudes and behaviors flow.”²⁰

The first step in implementing this final recommendation will need to be a fundamental rethinking of how and where educational experiences for all students are designed, delivered, customized and validated – and, most critically, how learners are supported throughout their student years. And while it is not the purpose of this report to set out an agenda for this work, three connected actions are advanced about where this education restructuring might begin.

Action 1: Build a genuine learning continuum with particular focus on grades 9 through 14. With this continuum:

- Search for ways to lessen the focus on grade levels as students receive the learning they need when they need it. Allow students to move to the next level when they are ready, which means that multi-age groupings of students doing project-based learning could become more common. Explore replacing some traditional courses lasting a semester or year with shorter learning modules that allow for flexibility in pacing and matching learners’ needs and interests
- Make sure that learning is student-centered and technology-enabled. Explore alternative modes of instruction, including blended classrooms



²⁰ S. Covey (1989). *The 7 Habits of Highly Effective People*, p 31

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- Ensure that students' college and career awareness is developed early in the middle grades
 - Bring down the wall between “teaching” and “learning” while shifting the emphasis from instruction to learning. Instead of a bureaucratic accountability system, move to a student-learner system
 - Expand opportunities for qualified students to begin earning college credit as early as their knowledge and skills allow, and broaden accelerated learning programs to include career-technical and other skill-building courses for students whose interests most likely will not take them to traditional postsecondary academic programs
 - Provide students with diverse opportunities to learn in work and community settings, beginning in the 10th and 11th grade, which will foster a true career development environment.
 - Improve secondary and postsecondary curriculum alignment through the collaborative efforts of faculty from both education sectors, which would evolve naturally through a grade 9 through 14 approach.
 - Develop a regional system of grades 9 to 14 career pathways that serve most students; work with key employer groups to ensure these pathways provide a pipeline of skilled workers for growing career fields in the region (e.g., information technology, health care, business/logistics and advanced manufacturing).
 - Invest heavily in advising services to achieve substantial increases in the number of graduates who continue directly on to college or some other form of structured learning beyond high school

Action 2: Promote high school completion and postsecondary participation by developing a “Central Ohio College by Nine” initiative. An integrated grade 9 through 14 education framework will make learning beyond high school accessible to all young people and adults, both by design and default. It will connect the high school with the college in ways that allow all students to participate in professional pathways that are regionally relevant, transparent and achievable.

Through Central Ohio College by Nine, students are enrolled in the community college (in the ninth grade) and have access to experiences and services that prepare them for college and that build their aspirations for continued learning beyond high school. Upon completion of twelfth grade, students can decide where to pursue a college degree or other postsecondary certificate. It could be at the local community college in which they have been enrolled since ninth grade and with which they have already had experiences, or it could be at a college or university elsewhere. Students can “carry” the accelerated learning credits already earned through a public college or university to any of Ohio’s public postsecondary institutions -- course transfer is guaranteed.

What is Central Ohio College by Nine?

Beginning in the ninth grade, participating students get the benefits and recognition of being a college student.

- Students will be enrolled in the local community college as a non-subsidy student with a “pathway status.” They will get library privileges, access to college-designed field trips, special events and presentations and other learning opportunities. They will be able to attend home sporting events, participate in campus visits designed specifically for Central Ohio College by Nine students and have frequent interactions with college faculty.
- Special sessions will be planned for parents, guardians and other family members. When the time comes, students and families will get assistance in applying for financial aid; and as students’ progress through the high school grades, more information will be provided about *College Credit Plus* and other accelerated learning opportunities.
- Students will be eligible for college courses through *College Credit Plus* and will be able to accrue up to 30 semester hours of college credit while in high school.
- Internships linked to career aspirations will be available as well as technical courses that are guaranteed to be transcribed as college credit. Also, special opportunities to “catch up” will be available for students experiencing academic or personal difficulties to increase their educational mobility and learning opportunities.

Central Ohio College by Nine is not a new funding stream for schools or colleges, nor is it another educational fad. In fact, there should be no significant additional costs for schools, parents or the state. The initiative creates an innovative pathway designed to build learning aspirations (i.e., to tackle mindset and culture issues) and academic foundations (by eliminating structural barriers) prior to college, especially for those learners who are not typically considered candidates for postsecondary education.

From day one in ninth grade through postsecondary education, Central Ohio College by Nine connects students with the college campus and gives them a passport to learning experiences that takes the mystery out of going to college – and that proves to them that twelfth grade is the wrong time for any student to stop his or her formal education.

Why is Central Ohio College by Nine so important?

Existing educational structures are just not working for most Central Ohio students. Many of today’s schools structure instruction and learning for a fast-disappearing industrial era in which a majority of students became assembly line workers. These schools and classrooms are out of step with the demands of 21st-century work and workplaces of every description. For example, in the industrial model, school-related learning often was enough. Once schooling was finished and a new job commenced, significant learning needs were no longer evident. Not so in the 21st century where jobs, careers and workplaces are learning intensive, and where people often have many jobs and careers over the course of their lifetimes.

This means that today’s students must gain more than content knowledge in core subject areas, and more than social competence for healthy living and productive citizenship. They must be prepared for future learning because job and even career changes are increasingly the rule rather than the exception. This represents a significant change in the learning continuum. It

means that students are no longer faced with the question of **whether** they're going to college; now it's a matter of **where** they're going to college. And this is the rationale for Central Ohio College by Nine.

Action 3: Implement competency-based education at the grades 9 through 14 level. The essential feature of competency-based education is its focus on the mastery of knowledge and skills instead of proxies for learning such as “seat time,” course hours or the collection of Carnegie units. This is a significant difference from the current system since students' progress is distinguished by the demonstration of learning, not time spent on tasks. Students work at their own pace and receive credit based on validation of performance.

Competency-based learning allows the curriculum to be modularized into smaller components that build on sets of competencies that lead to the desired learning goals. This switch – so that learning is the constant and time the variable – makes for a more flexible and personalized learning environment. While this transition can be challenging, its benefits for students are immense:

- A competency-based system is learner-focused and builds on what the student knows; it provides a higher standard for performance that demonstrates the acquisition of knowledge and skills.
- Competency-based learning provides differential pacing for students – some will advance quickly and others will require more time to master content knowledge, but the same learning is the desired end. A clear and achievable set of learning objectives can be established for all students, not just those at the top academically.
- Competencies learned can be assessed through multiple methods and the assessments are understandable and meaningful for students
- Competency-based education may create multiple pathways to graduation, make better use of technology and take advantage of learning opportunities outside of school hours and walls.
- Competency-based learning opens doors to personalized learning – customized for each student – with opportunities for face-to-face instruction, online and blended learning.

Most importantly, competency-based learning can improve the quality of learning, particular in grades nine through 14 as young people are transitioning from one education sector to another, and as they are exploring career opportunities that will shape the rest of their lives.²¹

²¹ For more on competency-based learning, see Kentucky Department of Education (2013). *Competency-Based Education: Helping All Kentucky Students Succeed*. Frankfort, KY.; and Patrick, S and Sturgis, C. (2013). “Necessary for Success: Building mastery of world-class skills. A Competency Works Issue Brief, International Association for K-12 Online Learning.

Engaging students in career paths . . .

*To ensure that their students acquire the knowledge, skills and experiences that will prepare them for postsecondary success – and for success in the workplace where the expectations are just as high or even higher – state education leaders across the country are adopting more challenging, meaningful K-12 standards that are designed to propel learners toward college and career readiness. This work will most assuredly continue, but more rigorous standards **alone** will not prepare students for their futures, nor will it close the persistent skills gaps within our labor markets.*

Like many other states, Ohio is working toward the goal of getting its students college and career ready, but it is not always clear what is meant by “career ready.” More to the point, educators and the state’s education policy leaders often have not done an adequate job of engaging students in career paths – or in making school relevant to students who are interested in careers, not just in pursuing a traditional bachelor’s degree.

Yet, how can districts and schools engage students, giving them incentives to take learning that leads to career preparation seriously? Research and experience offer several answers:

- *Career education must continue to be fully aligned with the evolving needs of the current labor market. Students need to know that learning will expand their work opportunities – and open the doors to well-paying jobs in today’s economy. One of the best ways to achieve this is to enlist the employer community as a primary partner, which will lead to a “demand-driven” system for determining which pathways will get continued investment, and which should be scaled down or phased out.*
- *All stakeholders must work together to develop and make available to **all** students a range of high-quality career pathways that combine rigorous academics with an applied curriculum and work-based learning, supported by focused career planning and guidance. These high-quality pathways must be every bit as rigorous as any other college-prep track, and they must result in credentials with value in the marketplace.*

As this report has already documented – and will confirm in the pages that follow – Central Ohio has made substantial progress in each of these areas. Yet, what many districts and schools, and their postsecondary partners, have not yet done is make inquiry-based learning a priority. Very simply, they have too often emphasized the mastery of facts and concepts along with abstract reasoning, giving too little attention to the application of knowledge and problem solving.

Central Ohio’s Pathways to Prosperity Network, in partnership with Jobs for the Future and the Pathways to Prosperity Project at the Harvard Graduate School of Education, may be the source of promising practices in this area. The Network is building a system of grades 9-14 career pathways that provide a pipeline of skilled workers for growing career fields in the region. Key industry sectors of interest include information technology, health care, business/logistics and advanced manufacturing.

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In recent years, numerous approaches have emerged to connect students to content in ways that produce “engagement” and active learning – and that actually change the education formula from an emphasis on instruction to a focus on the learner. Generally, career-technical programs have taken the lead here with their use of problem-based learning, internships, apprenticeships and work-based experiences. Commonly, these initiatives feature knowledge application, along with the promotion of problem solving, teamwork, responsibility and other 21st century skills. They provide a much-needed avenue for career exploration and the understanding of workplace knowledge requirements. And in a growing number of situations, they bring an element of competency-based learning that empowers students to acquire knowledge, skills and dispositions – and then to move forward at their own pace.

A new learning system for all students

Central Ohio’s districts, schools and their postsecondary partners today are doing a better job of educating an increasingly diverse body of students than ever before. But they are not doing well enough for all students. It surely isn’t because of a lack of effort. In recent years, new services and supports have been added to what happens in the classroom. Parents and families have been given new choices for the education of their children. New test-driven accountability and assessment systems have been used as levers for change. But the harsh reality is that far too many young people still are not being prepared for success in the classroom, in the workplace or in life – even with the standards movement’s focus on the academic content that students should learn.

What’s the solution?

The recommendations advanced in this report acknowledge that a new model for student learning is required – one that moves away from **accountability of learning** to **accountability for learning**. This change involves much more than the replacement of a word. It involves a transformation – the rebuilding of structures, the reshaping of cultures, the redefinition of success and a transition from teaching to a robust focus on learning.

In her guide to personalized learning, Meg Evans captured the essence of this transformation when she wrote:

Today’s education system was built to standardize the way we teach and test. This worked well when students would grow up to work in an industrial job. Now that we ask increasingly more of students, however, this arrangement falls short. Given that everyone has different learning needs at different times – we learn at different paces, have different aptitudes and enter classes with different experiences and background knowledge – we need an education system that can customize so that each student can realize her fullest potential.²²

²² Evans, M. (September 2012). *Personalized learning: suggestions for the Race to the Top-district competition*. Boston: Innosight Institute, Inc.

In practical terms, this transformation centers the spotlight on the student, shifting it away from the educational structure that has defined and rewarded success for the past century – a structure that has largely addressed the interests and needs of the top performing students, too often leaving the other students at risk. The new approach maximizes **all** student learning. It places less emphasis on one-time test scores and summative assessments. It gives more attention to students’ acquisition of the knowledge and skills, and the behaviors and dispositions, needed for success in college, careers and life. It makes greater use of competency-based assessments, formative assessments and documentation of students’ college and career readiness, while always seeking to increase the number of graduates who participate and succeed in learning beyond high school.

Efforts to build a new learning system must be substantial in scope and ambitious in design. It will take time to implement. It will need to be a “whole-cloth” activity, not something that is done in a piecemeal fashion. It will require sustained commitments and resources.

But these efforts will be worth it because they will give students throughout Central Ohio improved access to learning pathways that lead to higher levels of college readiness, participation and success, as well as career readiness.

Appendix A

Representative college and career readiness initiatives

- **College Tech Prep**

Launched in Ohio in 1993, Tech Prep represents a seamless, rigorous sequence of academic and technical coursework culminating in postsecondary degrees and/or industry-recognized credentials that support 21st century workforce pipelines. Tech Prep programs (pathways) are aligned with college curricula to create a 2+2 program. Therefore, Tech Prep is a high school through college program that produces graduates ready for high tech careers. The state is working to ensure that all career-technical programs – with enrollments of about 126,000 students – meet Tech Prep program standards, which will mean that every participating high school graduate is prepared to succeed in postsecondary education and the workplace.
- **Project Lead the Way**

Project Lead the Way is a nationwide non-profit organization dedicated to increasing the quality and quantity of science and technology graduates in the U.S. It is an inquiry/project-based STEM program offering both biomedical science and pre-engineering programs that provide rich opportunities for students to develop communication, collaboration and critical thinking and problem solving skills. In addition, Project Lead the Way's programs include skill development with engineering technologies. Finally, the program provides extensive course-specific professional development for teachers and counselors and a teacher network.
- **Ohio College Access Network (OCAN)**

Founded in 1999 by KnowledgeWorks Foundation, in collaboration with the Ohio Department of Higher Education and the Ohio Department of Education, OCAN is an independent 501(c)(3) organization that provides leadership and support for Ohio college access organizations to increase communities' college going and college success rates. At the community and regional level, OCAN is a member-based organization composed of non-profits, businesses, institutions of higher education, P16/P20 initiatives, Educational Service Centers, OSU Extension offices and more. OCAN is the nation's first statewide coordinating body for college access programs.
- **Ohio STEM Learning Network (OSLN)**

Managed by Battelle and a team of affiliates, OSLN promotes Ohio's growth in the quality of STEM (science, technology, engineering and mathematics) education by building capacity for teaching and learning. With a track record for developing and partnering in successful STEM schools, programs and networks, this unique combination of technical expertise and infrastructure delivers STEM innovation that matters. The Network's primary objectives are to: (1) help launch and connect STEM "platform" schools in concert with the state of Ohio and regional community stakeholders; (2) build an education innovation infrastructure that fuels, captures and spreads STEM initiatives within and across schools, regions and systems; and (3) promote scale and sustainability design factors as a core requirement for OSLN activities throughout all elements of project management.

- **Innovation Learning Network (ILN)**

Ohio was one of the first states to join the Innovation Learning Network sponsored by the Council of Chief State School Officers. ILN states are identifying, testing and implementing student-centered approaches to learning that will transform education systems and improve students' preparation of college and careers. The goal is to spur system-level change by scaling locally-led innovation to widespread implementation, with a constant focus on student outcomes. Currently, the 17 Ohio school districts engaged in the Network are developing personalized, competency-based pathways for student learning and redesigning their curriculum and program offerings to support students' abilities, interests and schedules. Three Educational Service Centers (Central Ohio, Cuyahoga and Hamilton counties) are supporting this work.

- **Adult Basic and Literacy Education (ABLE)**

ABLE offers basic literacy skills, GED preparation, English for speakers of other languages, family literacy, workplace literacy, distance education, corrections education and transitions. These services are provided at no cost to students and are customized to help them achieve their goals for participation in further education and the workplace. Services are targeted to those adults who are most educationally and economically disadvantaged.

- **Central Ohio Compact**

The Compact is a regional strategy to retain students in the education pipeline by reducing or eliminating remediation, expanding early college opportunities and guaranteeing a bachelor's degree pathway to colleges and universities in the region. When it comes to improving college readiness and raising postsecondary success rates, no one can go it alone. So the Compact gives postsecondary institutions and P-12 educators access to skills and resources that lie outside their boundaries. Its members have formed strategic partnerships that enhance their capacity to build students' learning aspirations, strengthen academic preparation, promote adult learning and improve the productivity of educational institutions at all levels.

- **Pathways to Prosperity Network**

A collaboration of states, Jobs for the Future and the Pathways to Prosperity Project at the Harvard Graduate School of Education, the Network works to ensure that more youth complete high school and attain a postsecondary credential with value in the marketplace. The long-term goal is to create regional systems of career pathways that serve the most students. Key industry sectors of interest include information technology, health care, business/logistics and advanced manufacturing. Central Ohio's program will develop career pathways that provide a pipeline of skilled workers for growing career fields in the region. With support from JP Morgan Chase, the Ohio Business Roundtable, Battelle, Educational Service Center of Central Ohio and Columbus State, the Compact has joined a network of states in building a system of grades 9-14 career pathways in collaboration with employers and aligned with labor market demands. In 2014, the Network received a Straight A Fund grant to start up programs in 12 participating districts.

- **Articulation and Transfer**

For more than a decade, the vision of a statewide system of student mobility has driven Ohio's "articulation and transfer" initiatives, which have been designed to promote student mobility by guaranteeing that certain courses can be transferred and applied to degrees and certificates in multiple disciplines at other two- and four-year colleges and universities. Ohio's articulation and transfer story reflects a commitment to radical changes in the state's culture of learning and in its thinking about credit transfer that historically has been institutionally focused, not **student centered**. In 2010-2011, 42,998 students transferred within the University System of Ohio. This is a 43.3% increase from 2002.

Appendix B

Graduate Offerings Geared to High School Teachers Seeking Credentials to Teach Postsecondary Courses

	On Campus	Online	Hybrid	Off Site
Ashland University		Contact: Dawn Weber, Dean, College of Arts and Sciences		
MA in American History and Government	X		X	
MA w/ specialization in Teaching American History and Government	X		X	
MA w/ specialization in Teaching English	X	X	X	
MA in Health and Risk Communication;		X		
Graduate courses in mathematics and sciences to meet need	X	X	X	
Graduate courses in communication to meet need		X		
Graduate courses in psychology to meet need		X		
Graduate courses in foreign languages to meet need	X			
Cleveland State University		Contact: Jianping Zhu		
MS and MA in Mathematics	X			
MS Mathematics w/ specialization in Applied Statistics	X			
Hiram College		Contact: Sandra I. Madar, madarsi@hiram.edu , 330-569-5261		
English	X	X	X	X
Biology	X	X	X	X
History	X	X	X	X
Kent State University		Contact: Graduate Studies Office - 330-672-2661 - gradapps@kent.edu		
MA in Mathematics for secondary teachers	X			
MA in History (History for teachers)	X			
MA in English (Concentration for teachers)	X			
Ohio Dominican University		Contact: Pamela Allen, Coordinator of P-16 Partnerships, 614-251-4289 allenp2@ohiodominican.edu		
Master of Arts in English		X		
Graduate coursework in English (18 hours)		X		
Master of Business Administration	X	X	X	
Otterbein University		Contact: Dr. Barbara Schaffner, Dean, Graduate School		
Master of Arts in Educational Mathematics	X		X	
18 in 15 Program: Mathematics	X			

	On Campus	Online	Hybrid	Off Site
Shawnee State University		Contact: Dr. Doug Darbro, Dr. Becky Thiel, Acting Associate Provost		
MS Mathematical Sciences		X		
English/Language Arts (6 courses)		X		
Mathematics (6 courses) online; Social Studies (6 courses)		X		
The University of Toledo		Contact: Ms. Elizabeth McKnight, Dr. Patricia Komuniecki, Graduate Dean		
Master of Education & Science in Biology*	X	X		X
Master of Education and Arts in English (under development)*	X	X		X
Master of Education and Science in Mathematics (tentative)*		X		
University of Cincinnati		Contact: Tara Smith tara.smith@uc.edu or Lisa Holstrom lisa.holstrom@uc.edu		
MA in Teaching English and Language Arts				
Graduate Certificate for Teachers of English	X			
Graduate Certificate for Teachers of History	X			
Graduate Certificate for Teachers of French or Spanish	X			
Graduate Certificate for Teachers of Mathematics	X			
University of Dayton		Contact: Paul Vanderburgh, Assoc. Provost, pvanderburgh1@udayton.edu		
Graduate certificate in English	X	X	X	
University of Findlay		Contact: Dave Rossman, rossman@findlay.edu, 419-434-4512		
English Language Arts (6 courses)		X		
Mathematics and Social Studies (6 courses)		X		
Wright State University		Contacts: R. William Ayres, Associate Dean, Graduate School; William Slattery; Nimisha Patel, nimisha.patel@wright.edu, 937-775-4474		
Master of Science Teaching (Earth Science)			X	
Teaching College Composition	X	X		
Mathematics and Statistics	X			
Master of Clinical Psychology				
History	X			
Advanced Studies	X	X		

SOURCE: Ohio Department of Higher Education