



**FROM THE FIRST FORTY-EIGHT THROUGH THE 21ST CENTURY:
BUILDING PROSPERITY PATHWAYS IN
THE OHIO APPALACHIAN COLLABORATIVE**





If I were giving a young man advice as to how he might succeed in life, I would say to him, ‘pick out a good father and mother, and begin life in Ohio.’” – *Wilbur Wright*

The founders of Ohio were known as the “First Forty-Eight.” The group first landed at Fort Harmar in Marietta, Ohio, and were touted by George Washington himself, “I know many of the settlers personally, and there never were men better calculated to promote the welfare of such a community.” Many years later, then, it was no surprise that Wilbur Wright affirmed that life in Ohio has long been a pathway to happiness and a high quality of life (McCullough, 2015).

These “First Forty-Eight” built pathways into the Northwest Territory, forging their routes primarily through Ohio’s river system and canals in the 1800s. Ohioans forged a path into western America that helped lay the foundation for the development of the entire country.

Fast forward 200 years, and not much has changed.

Ohioans are still well-suited to, and engaged in, building strong pathways. This paper focuses on how one group, The Ohio Appalachian Collaborative (OAC), is building pathways for students to help them succeed in the 21st century. The OAC, through a Straight A Fund grant from the State of Ohio, has built four model pathways to enable student success and continued prosperity for their lives after high school. These career pathways, much like the forging of the Northwest Territory, help to forge bright futures for students in the areas of: Arts & Communication; Business & Entrepreneurship; Health & Human Services; and STEM (Science, Technology, Engineering, and Mathematics).

With more than 800,000 economically disadvantaged students in Ohio and 450,000 Ohio students attending schools in rural communities, it is imperative that Ohio’s rural students have access to a high-quality education that will prepare them for success in college and careers, and lift them out of the cycle of poverty.

But rural school districts face unique challenges. Many students in rural school districts come from economically disadvantaged homes. And the Appalachian region as a whole struggles with an undereducated population and a lack of high-paying jobs to keep educated citizens in the area.

It is with these challenges in mind that in 2010, the OAC was established as a partnership among 21 rural districts and not-for-profit partner Battelle for Kids. Through initial support from Ohio’s Race to the Top grant and other philanthropic foundations, the first four years of the OAC focused on building a strong collaborative, establishing networks for professional development and learning, and joining forces to amplify the voice of Appalachian districts to generate resources. Working together, the mission of the OAC became clear: to not only provide enhanced educational opportunities to its more than 34,000 students, but to also strengthen the ties between education and economic development and bring students hope and aspiration for a brighter future.



Figure 1. Fort Harmar. Marietta, Ohio circa 1788
Hildreth, S.P. (1848). Pioneer History: Being an Account of the First Examinations of the Ohio Valley, and the Early Settlement of the Northwest Territory. Cincinnati, Ohio: H.W. Derby & Co., pg. 316

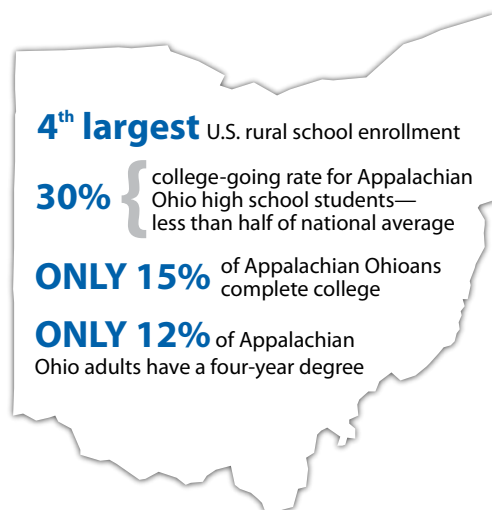


Figure 2. Ohio’s Rural Education Landscape

In December 2013, the Ohio Department of Education awarded a Straight A Fund grant to the OAC to continue its work around transforming rural education. Through the Straight A Fund grant, the OAC has expanded to serve:



27 DISTRICTS



98 SCHOOL BUILDINGS



3,200 TEACHERS



44,000 STUDENTS
with 52% living
in poverty

OAC STRUCTURE AND GOVERNANCE



The OAC Straight A project has allowed us to create a vision without limits. It is a unique opportunity to think big. The project is forcing everyone to think outside the box, but especially forcing the traditional high school to reassess its programs and create a strong new identity.” — *OAC superintendent*

One of the greatest predictors of student success rests in a school’s collective efficacy. With the research completed by Goddard, Hoy, Smith, and Sweetland, collective efficacy is a much better predictor of student success in rural schools than socioeconomic status of the students (Goddard, 2003; Hoy, Smith & Sweetland, 2002). Collective efficacy is defined as a shared belief that by working together “we can make a difference.” The belief is that through a united effort, administrators, staff, and community can make a difference in the schools where they work.

As such, the foundation for a strong collaborative rests in the collective efficacy of its teams. One of the greatest strengths of the OAC lives within the structure of its collaborative teams, from the larger Collaborative itself, to the district implementation teams. The OAC structure and governance is represented in Figure 3. There are three key teams in the overall structure:

- 1. District Implementation Teams:** These teams comprise the backbone for project implementation. While the OAC has 27 districts in the collaborative, the makeup of the intra-district team ultimately determines the success of the implementation. This team includes district, building, and teacher leadership.
- 2. Team Leads for Work Stream Implementation:** After forming a district team, leads for each work stream—performance management (grant management), pathways, and professional learning—are identified. These leads are the points of contact for everything related to the respective work streams so that each district can most efficiently share the work load and fully implement change initiatives.

3. **Stewardship and Steering Committees:** These are the groups that oversee the implementation and decision-making for the Collaborative. With 27 districts in the Collaborative, decisions must be made efficiently, but allow for the input of all districts. The Stewardship and Steering committees make decisions regarding the Collaborative’s direction, expansion, and fiscal accountability, and are facilitated by the Collaborative’s third party partner, Battelle for Kids.

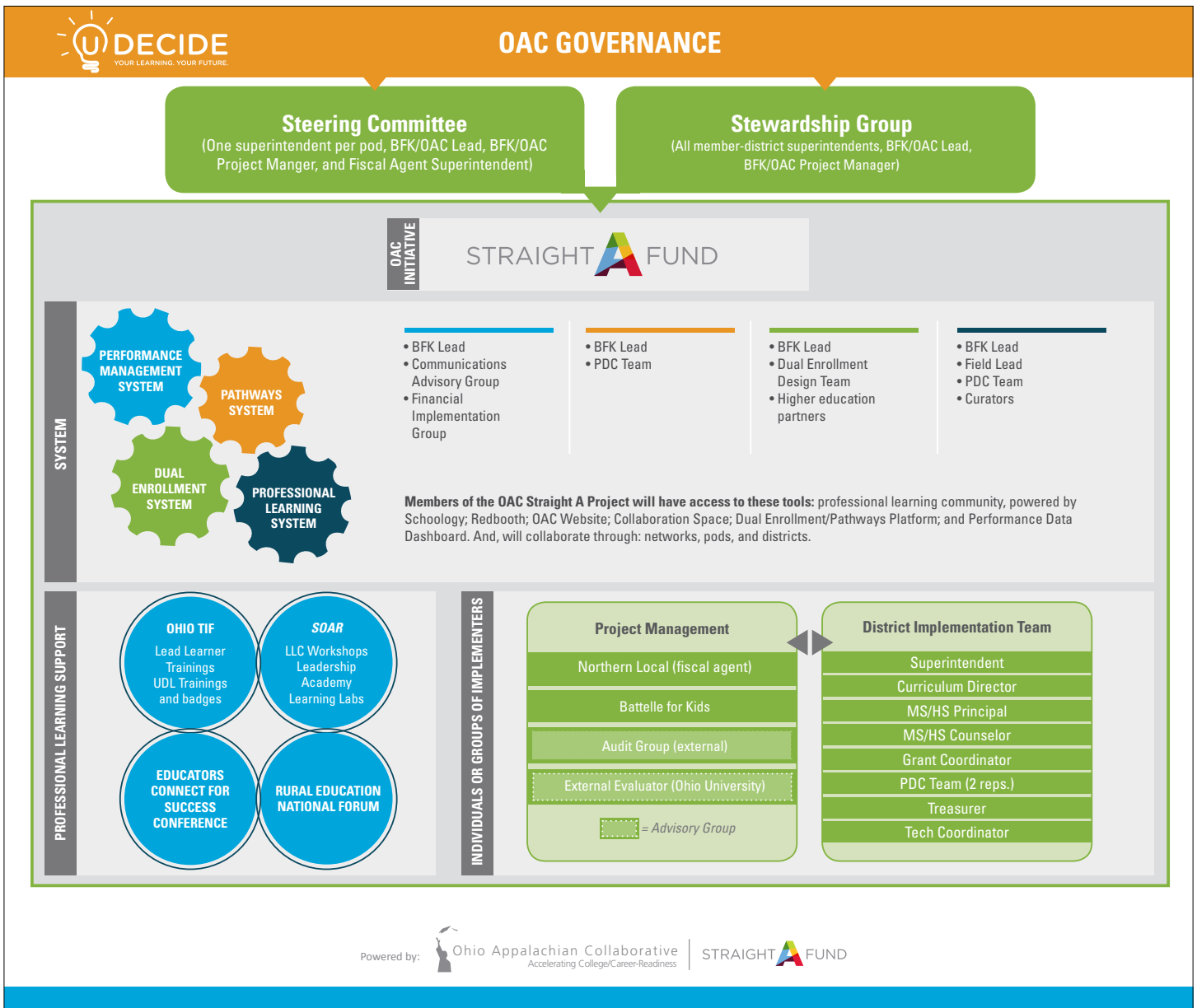


Figure 3. The OAC structure and governance

PERSONALIZED LEARNING PATHWAYS

The major focus of the OAC's Straight A Fund grant is building 21st century personalized learning pathways for student success. Personalized Learning Pathways, also known as Career Pathways, integrate rigorous academic instruction with curriculum and real-life work experience. According to the Harvard Graduate School of Education (2014), the U.S. career development system is highly developed in some ways and underdeveloped in others. Students possessing few academic and technical skills do not have the same pathways to success and freedom as those that do. The Career Pathways vision is, "...that young Americans from all racial, ethnic, and socioeconomic backgrounds, and from all parts of the nation will complete secondary school, receive post-secondary preparation and certification for entry into viable careers, and then transition successfully into the adult world of work." These pathways can lead to careers, certificates, and college credit. The OAC is focusing on pathways in business sectors that have a direct link to the region and reflect the four industries with the most relevance to the students in the region, which are:

- Arts & Communications
- Business & Entrepreneurship
- Health & Human Services
- Science, Technology, Engineering, & Math (STEM)

Pathways that link learning with student interests and career preparation lead to higher graduation rates, increased college enrollment rates, and, ultimately, a higher earning potential. The OAC Personalized Learning Pathways consist of four important components to support students and are aligned to Ohio's 16 career fields. Each component and pathway was developed with a diverse group of stakeholders (educators, and business and community members) as part of a "think tank" from the OAC region, and included tools and supports to help districts create their own pathways. A full complement of resources for the OAC's pathway development are available at: <http://portal.battelleforkids.org/OAC/straight-a-work/personalized-learning-pathways>.

The OAC Pathway Think Tank built a pathway that incorporates the Essential Elements of High Quality Pathways, as identified by ConnectEd, The California Center for College and Career (http://www.connectedcalifornia.org/linked_learning/essential_elements). The OAC has placed these essential elements of high quality pathways into four components: (1) Academic & Technical Coursework; (2) Personalized Learning; (3) Work-Based Learning; and (4) Career Advising & Counseling.

With this structure in place, the project implementation follows these four components in its planning and implementation.



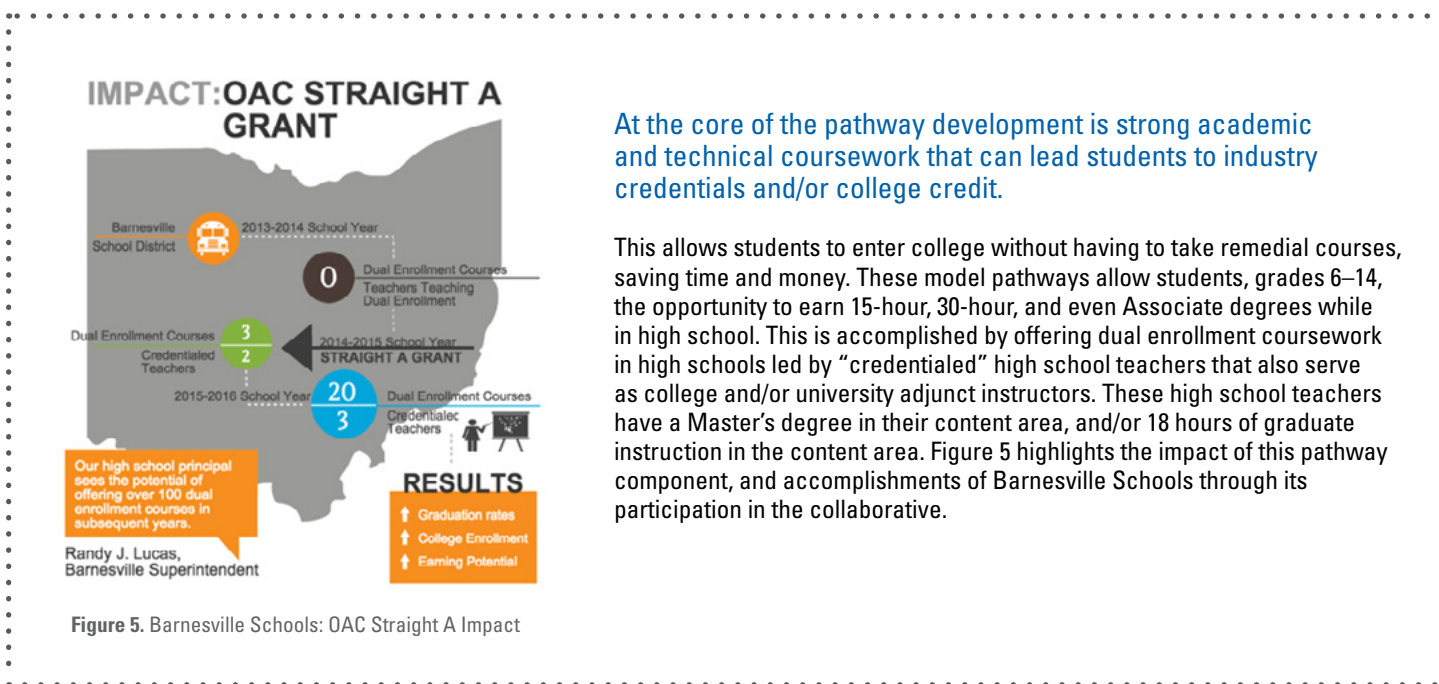
Figure 4. OAC Model Pathways

COMPONENT 1: Academic and Technical Coursework



Due to the OAC Straight A grant, we now have two credentialed teachers and offer three dual enrollment courses for this school year. Next year, we will have three or four credentialed teachers with more than 20 dual enrollment courses offered to our students. This may not seem like a lot, but for a small rural district in Southeastern Ohio, it is a great start! Our high school principal sees the potential of offering over 100 dual enrollment courses in subsequent years.”

— *Randy Lucas, Barnesville Superintendent*



At the core of the pathway development is strong academic and technical coursework that can lead students to industry credentials and/or college credit.

This allows students to enter college without having to take remedial courses, saving time and money. These model pathways allow students, grades 6–14, the opportunity to earn 15-hour, 30-hour, and even Associate degrees while in high school. This is accomplished by offering dual enrollment coursework in high schools led by “credentialed” high school teachers that also serve as college and/or university adjunct instructors. These high school teachers have a Master’s degree in their content area, and/or 18 hours of graduate instruction in the content area. Figure 5 highlights the impact of this pathway component, and accomplishments of Barnesville Schools through its participation in the collaborative.

To begin the development of this component of the pathway, the OAC moved through a three-step process.

STEP 1.

The OAC helped fund five online and blended Master’s degree programs in each corner of Ohio. See Figure 6 for the Master’s program partnerships.

1. Biology/Life Sciences—University of Toledo
2. English/Language Arts—Ohio Dominican University
3. Mathematics—Shawnee State University
4. Social Studies/History—Ohio University
5. Business—University of Akron

The development of these five programs allowed school districts to maximize core content instruction in all four pathways so that the most students could attain at least some college credit. Teachers in these content areas could be “credentialed” as adjunct instructors, and thus, offer dual credit to students in their home high schools.

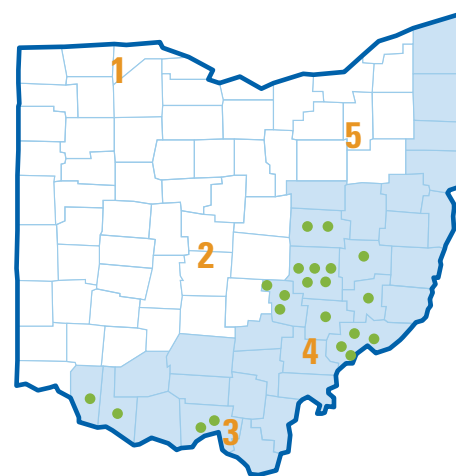


Figure 6. Master’s Program Development in the state of Ohio through the OAC

STEP 2.

2012–2013	2013–2014	2014–2015	“In the Pipeline”	Projected 2015–2016
82	113 (+31)	156 (+43)	78	234

Figure 7. Dual Enrollment Credentialed Teachers

The OAC funded 78 teachers across the region to become adjunct instructors. Figure 7, above, demonstrates the increase in credentialed instructors over the past two years.

With the credentialing option, teachers have had a unique opportunity to further their own career pathways in addition to providing a lasting student benefit through college credit courses while in high school.

“ I have really enjoyed the experience of online learning, while raising a young family and teaching full-time. With the program lasting 15 months, it is intense, but doable. I’m glad that it was partially paid for, and that they found in-state institutions to create these programs.” — *Julie Topping, Indian Valley Schools, Science Teacher*

The increase in dual credit credentialed teachers has translated into a tremendous increase in student coursework options. Figure 8, below, outlines the increase in dual enrollment participation over the past two years.

SY 2012–2013	1,308 Students	
SY 2013–2014	1,941 Students	48% Increase
SY 2014–2015	2,417 Students	24.5% Increase
SY 2015–2016 (projected)	2,889 Students	19.5% Increase

Figure 8. Student Participation in Dual Enrollment

The benefits to students in this process have been numerous, as told in Figure 9, right, in “Austin’s” story.

MEET AUSTIN: An OAC Student’s Experience

“Austin” lives in a double-wide trailer. His mom is a stay-at-home mom, and his dad works for the local heating and cooling company. Both parents are proud, hardworking individuals, but struggle to make ends meet.

Austin has always been a smart kid. Since kindergarten, he has done well in school and scored high on state assessments. He also excels in sports, especially track.

Austin’s parents want him to succeed, but they don’t understand how to navigate FAFSA, ACT/SAT tests, or the college application process. And they are too proud to admit they don’t know, and don’t want to ask for help.

Fortunately, through the OAC, Austin has been supported every step of the way. He was exposed to career pathways at an early grade, and understood what he needed to do to graduate college and career ready.

He was able to take dual enrollment courses while still in high school, and graduated from high school with 33 semester hours of college work—earned free of charge. These semester hours transferred to the university of his choice after graduating from high school.

The work of the OAC didn’t just save Austin and his family money—it save them the burden of college debt, and provided Austin the opportunity to get a jump-start on his college education and earn a degree that will help him break the cycle of poverty.

Figure 9. Student Story

STEP 3.

Each OAC district mapped pathway coursework in grades 6–14 in partnership with local institutions of higher education. See Figure 10 for a model coursework map for the Health & Human Services Pathways.



Model Pathway Course Offerings

Pathway: Health & Human Services (22–39 hours)

■ Compacted Curriculum
■ Dual Enrollment Courses
■ Associate's Degree Courses

	Grade Level										Post-Secondary Level							
	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Grade 13	Grade 14									
Academic Requirements	English	ELA 6	ELA 7	ELA 8	English 9 (1)	English 10 (1)	English 11 (1)	English Comp I (.5) – 3 semester hours	English Comp I (.5) – 3 semester hours									
	Math	Math 6	Pre-Algebra Math 7	Algebra I (1) Math 8	Algebra I or II (1)	Algebra II Geometry (1)	Geometry	College Algebra (1) – 4 semester hours	Business Math (1) – 3 semester hours	College Algebra (1) – 4 semester hours								
	Science	Science 6	Science 7	Science 8	Physical Science Biology	Biology	Anatomy & Physiology I & Lab (1) – 4 semester hours	Chemistry (1) 5 semester hours	Biology (1) 4 semester hours	Anatomy & Physiology I & Lab (1) – 4 semester hours	Chemistry (1) 5 semester hours							
	Social Sciences/History	Social Studies 6	Social Studies 7	Social Studies 8	World Studies (1)	US History (1)	Western Civilization I (.5) – 3 semester hours Western Civilization II (.5) – 3 semester hours		Western Civilization I (.5) – 3 semester hours	Western Civilization II (.5) – 3 semester hours								
	Language other than English	Foreign Language Survey	Foreign Language Survey	ASL I Chinese I (1)	ASL I Chinese (1)	ASL II – 3 semester hours	ASL III – 3 semester hours				ASL III – 3 semester hours							
	Visual and Performing Arts	Introduction to Art	Introduction to Art	Fine Art (1)														
	College Preparatory Elective (Choice)	Career & College Survey	Career & College Survey		Career & College (.5)													
	Other Elective Requirements	Music Band	Music Band	Health (.5) PE (.5)	COMPASS & ACT Preparation (.5)	Nutrition & Wellness (0.5)	Intro to Psychology (1) – 3 semester hours	Intro to Sociology (1) – 3 semester hours	Intro to Psychology (1) – 3 semester hours	Intro to Sociology (1) – 3 semester hours	Intro to Sociology (1) – 3 semester hours							
Core Components	Technical Courses	Computer Applications	Computer Applications	Computer Applications	Introduction to Microcomputer Concepts & Applications (0.5) – 3 semester hours	Medical Terminology I (0.5) – 2 semester hours Medical Terminology II (0.5) – 2 semester hours	Pharmacology Math (.5) – 3 semester hours		Intro to Microcomputer Concepts & Applications (0.5) – 3 semester hours	Administrative Medical Office Practices – 3 semester hours	Basic Medical Laboratory Techniques – 3 semester hours	Medical Assisting Clinical Procedures I – 3 semester hours	Pharmacology & Drug Administration – 3 semester hours	Medical Transcription – 3 semester hours	First Aid and Safety B – 1 semester hour	Disease and the Disease Process – 2 semester hours	Medical Laws and Ethics – 2 semester hours	Clinical Practicum/ Seminar – 1 semester hour
	Courses	6	7	8	9	10	11	12	13	14								

Figure 10. Health and Human Services Model Pathway

All 27 OAC districts have pathways for students uploaded to a shared platform, the Dual Enrollment Course Catalog, which serve two purposes:

- STUDENT PATHWAY BUILDING.** Students can envision pathways beyond their high school careers.
- COURSE SHARING.** Districts can share coursework making it easier for students to complete each pathway. Because the OAC districts are small, rural districts, they have been able to economize coursework and offer shared classes so that students can take advantage of the full complement of coursework. Some districts have even synchronized their bell schedules to ensure that students maximize instructional time.

COMPONENT 2: Personalized Learning



The project requires “letting go of control as a teacher” and “putting everything into the kids’ hands, trusting them to do what they need to do.” — *OAC Teacher*

To support the coursework component for these model pathways, classroom instruction needs to focus on each learner in a “personal” way. By personalizing classroom instruction, students will learn in ways that work for them, focusing on their skills and personal interests. Through this kind of classroom instruction teachers can support students as they complete a pathway. Professional Development Coordinators (PDCs) facilitate this professional learning for each district in a tailored manner. Figure 11, below, outlines the roles and responsibilities of the PDCs.

To help teachers develop and adjust their classrooms for more personalized instruction, the OAC developed six key areas of personalized instruction. Each district chooses a key area that best meets their current needs and identifies their priority method for classroom instruction, and the OAC collaborates on professional development across each of these areas. And, the collaborative uses a virtual platform to share professional resources across the region. This platform serves as a Professional Learning Community. The six key areas are listed below.

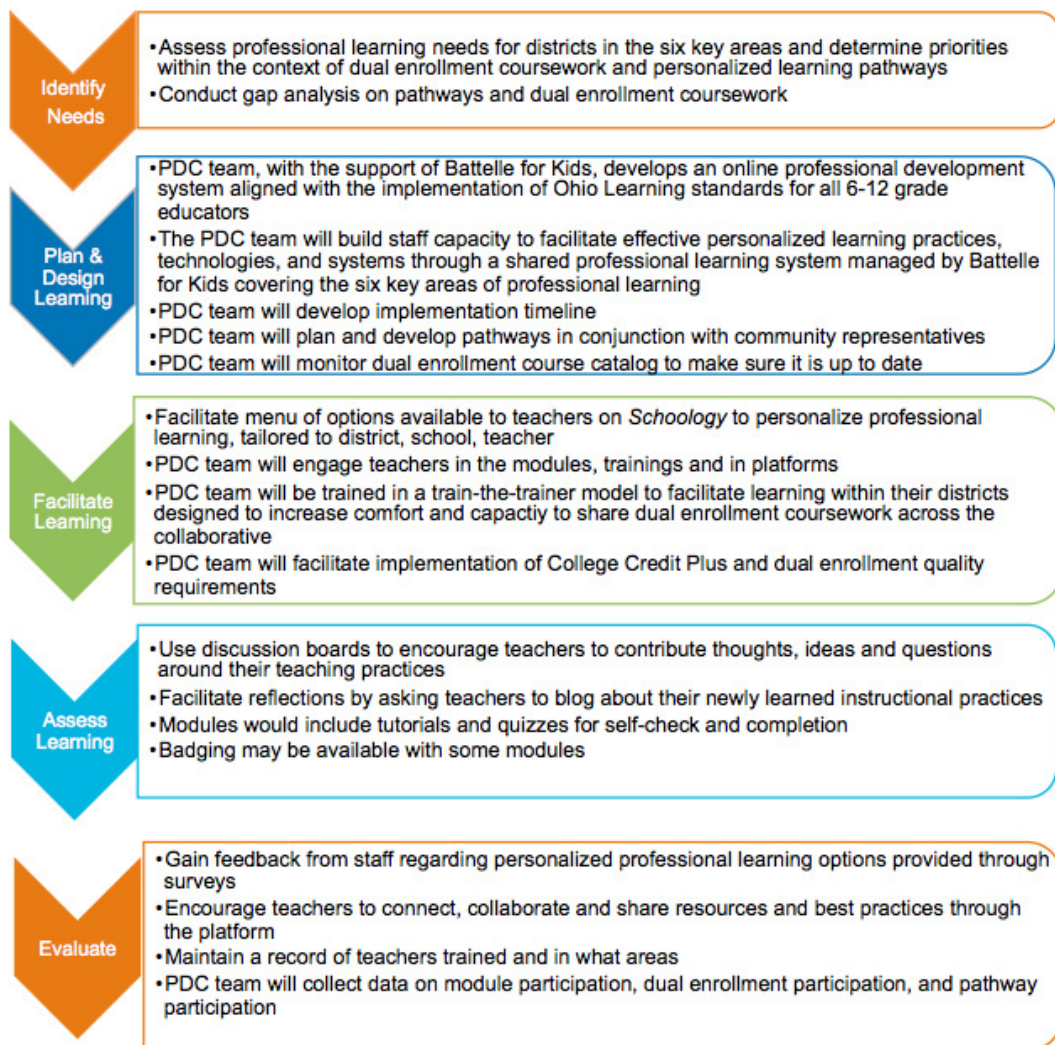


Figure 11. Professional Development Coordinator (PDC) Roles

PROFESSIONAL LEARNING KEY AREA #1: ASSESSMENT LITERACY AND FORMATIVE INSTRUCTIONAL PRACTICES (FIP)



Assesment Literacy/FIP

Assessment Literacy

Assessment literacy helps educators understand how to produce high-quality achievement data; teachers evaluate the data and know how to use the data to move learning forward. Individually and collectively, teachers regularly design and use a variety of formative and summative assessments to gain an accurate understanding of student learning and inform their instruction.

FIP

Formative Instructional Practices are the formal and informal ways that teachers and students gather and respond to evidence of learning. These practices help students become a true partner in the teaching and learning process. Research shows that integrating these components into daily practice can increase student learning and teacher effectiveness.

One example of how districts have shared professional development in this key area comes from a portion of the collaborative in Washington County. During the week of March 23–27, 2015, teachers in grades 6–12 from Belpre, Fort Frye, Warren, and Wolf Creek were invited to participate in the first of many collaborative work days focusing on Assessment Literacy. Because OAC districts are relatively small, secondary teachers are often the only ones in their district teaching their specific subject areas. During this week, teachers had the opportunity to foster collaborative relationships with teachers from neighboring school districts with similar teaching assignments, develop a trained eye to critically review and design assessments, collect resources to guide learning and share with colleagues, and create assessments that reflect best practices in assessment literacy for immediate use in the classroom. Teachers were surveyed at the end of the day regarding the content and format of the session. The results of this survey are listed in Figure 12 below.

	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
I was satisfied with today's session.	42%	47%	11%	0%	0%
The atmosphere was conducive to professional conversation.	63%	37%	0%	0%	0%
Time was sufficient to allow learning and practicing of new concepts.	55%	42%	3%	0%	0%
Session content strategies will be useful in my work.	66%	32%	2%	0%	0%

Figure 12. Shared Professional Development in Assessment Literacy

PROFESSIONAL LEARNING KEY AREA #2: BLENDED LEARNING



Blended Learning



Technological access facilitates doing school work at any time and from any place – even snow days are less of a disruption since teachers can post assignments and students can continue to work online.” — *OAC Student*

Blended Learning

Blended learning is a formal education program in which a student learns at least in part through online content delivery and instruction with some element of student control over time, place, path, and/or pace and at least in part at a supervised brick and mortar location away from home.

The OAC utilizes blended learning in two ways:

1. Teacher professional development. The OAC uses a virtual platform.
2. Student instruction. Two of the primary ways students receive dual enrollment instruction are through blended learning and distance learning. Distance learning is the method in which districts share coursework so that students can have access to all courses in each of the four pathways. Figure 13 shows a distance learning classroom established by the OAC



Figure 13. Distance Learning Classroom in the OAC

PROFESSIONAL LEARNING KEY AREA #3: NEW LEARNING TECHNOLOGIES



New Learning Technologies

New Learning Technologies

Emerging technologies have the ability to reshape and innovate education by transforming learning into a more engaging, collaborative, and productive effort utilizing the learner's specific needs, interest and learning styles.

The environment for learning has significantly changed in the OAC compared to the environment of two years ago. Through Ohio's Straight A grant funding, the OAC purchased \$7 million in state-of-the-art technology, infrastructure, and networking to set the state up for 21st century instruction. In addition to the enhanced learning environment for students, teachers also use social media like "twitter chats" and blogging to promote and share best practices in a formal way throughout the collaborative. Figure 14 shows the nature of the questions and chat environment in an OAC Tweet Chat.

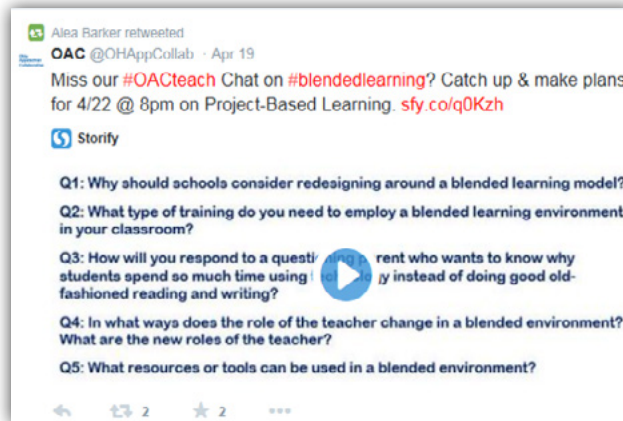


Figure 14. Twitter Chat archive from the OAC.

PROFESSIONAL LEARNING KEY AREA #4: PROJECT-BASED LEARNING



Project-Based Learning

Project-Based Learning

In Project-Based Learning (PBL), students go through an extended and rigorous process of inquiry in response to a complex question, problem, or challenge. Students learn key academic content while practicing collaboration, communication, and critical thinking.

During the upcoming school year, OAC educators will engage in project-based learning through the Buck Institute and the Central Ohio ESC, with the opportunity to send teams of four teachers per district for professional learning in a three-day workshop. Teachers will plan projects and units in this workshop to use for instruction with students over the course of the school year.

Project-based learning is a fundamental component of 21st century learning. As David (2008) notes, "The core idea of project-based learning is that real-world problems capture students' interest and provoke serious thinking as the students acquire and apply new knowledge in a problem-solving context. The teacher plays the role of facilitator, working with students to frame worthwhile questions, structuring meaningful tasks, coaching both knowledge development and social skills, and carefully assessing what students have learned from the experience. Advocates assert that project-based learning helps prepare students for the thinking and collaboration skills required in the workplace." The OAC has, therefore, chosen project-based learning as a key area.

PROFESSIONAL LEARNING KEY AREA #5: STUDENT MOTIVATION



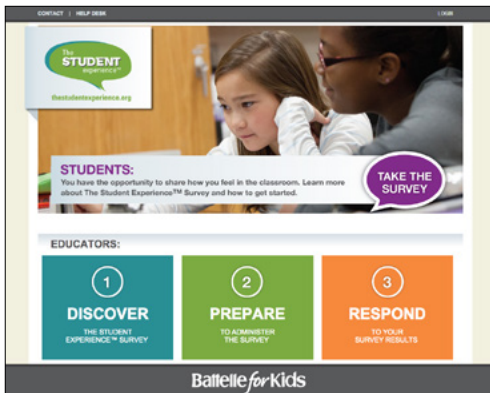
Student Motivation



It's easier to understand new material (plus it 'sticks' better) by looking up and applying new information instead of just listening to lectures, and online research offers more than a single textbook." — *OAC Student*

Student Motivation

Motivation is key to the learning process. It is the process that initiates, guides and maintains goal-oriented behaviors, like mastering a new skill or concept in the classroom. Teachers in the OAC are working to increase student motivation, they are gauging their success with The Student Experience™ Survey.



One of the main goals of any teacher is to motivate students to aspire to success. To better understand its students, the OAC has begun monitoring student engagement through The Student Experience™ Survey. The Student Experience™ Survey items are rooted in years of Gallup® research around student hope and engagement and measure select educator standards from across the country. The survey was developed using research and best practices around survey implementation and administration protocols to ensure accuracy, reliability, and confidence in the results. As the author of *Making Hope Happen*, Shane Lopez states, "Research indicates that 'hope' is a better predictor of ongoing [college] enrollment and graduation than [ACT scores]." OAC educators who participate in The Student Experience™ Survey have access to a Teacher Action Guide with research-based strategies to inform reflective response, professional practice, and collaborative conversations in response to their survey results in order to better motivate students in the classroom. Students from the OAC have weighed in on their motivation for success.



I feel that dual credit classes have benefited my Personalized Learning because I got to decide which classes related most strongly to my double-major and take those classes." — *MacKenzie Merrick, Northern Local Schools, Class of 2015*

PROFESSIONAL LEARNING KEY AREA #6: OHIO'S NEW LEARNING STANDARDS



Ohio's New Learning Standards

Ohio's New Learning Standards

These state standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that students need for success in college and careers. They leverage technology to get updated student data to educators and parents; they help ensure that all students will have the same expectations wherever they live. With Ohio students fully prepared for the future, our communities will be better-positioned to compete successfully in the global economy.

Because Ohio is engaged in building curriculum and assessments for 21st century learning standards, the OAC has engaged educators in best practice around curriculum mapping, vertical progression, and instructing with Ohio's New Learning Standards. And, teachers across the OAC have collaborated to build curricular vertical progression guides and unit organizers that align with the state's new learning standards. A "think tank" of OAC educators was assembled to build and pilot these tools to promote sound, aligned instruction across the state and even across the nation. As Jan Chappuis from Pearson ATI comments, "The vertical progression guides arrange the Common Core State Standards so that teachers can easily trace the development of each standard across grade levels. They are an invaluable resource for anyone deconstructing the Common Core State Standards into classroom-level learning targets or differentiating instruction for strong and struggling learners."

COMPONENT 3: Work-Based Learning

Work-based learning opportunities can take the form of job shadowing, intensive internships, virtual apprenticeships, and school-based enterprises. Exposing students to real life work experiences helps build their understanding of career fields while helping them develop critical thinking and problem-solving skills. It allows students to apply classroom theories to real-world problems, explore career options, and gain job experience.

Connecting with local businesses is an essential part of the work-based learning component of pathways. In the OAC, districts have made connections with community businesses and agencies to generate work-based learning opportunities according to the local needs of the region. One of the greatest challenges in rural communities is “brain drain”—a phenomenon where students leave a rural region in search of better opportunities in other areas. The OAC project is aimed at stemming such brain drain.

The OAC has identified top employers, certifications, education, and soft skills needed in the region to pinpoint the workforce needs that students may fill. This was accomplished by analyzing employment ads in each of the five OAC regions. Figures 15 and 16 outline the top certifications and job openings identified in the East Central OAC region.

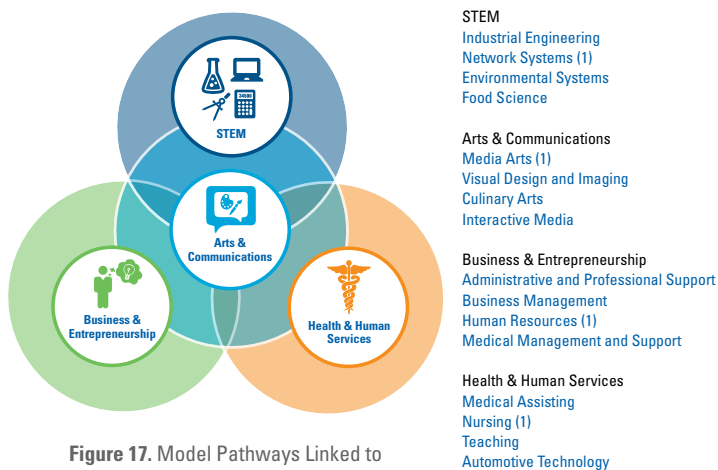


Figure 17. Model Pathways Linked to Ohio's Career Clusters

In addition to disaggregating regional workforce data, the OAC has linked its model pathways to the Ohio Department of Education's pathways for use with students in developing post-secondary plans.

These pathways demonstrate jobs available and necessary certifications along a continuum in particular career clusters. Figure 17 identifies how the OAC's model pathways link to these career clusters.

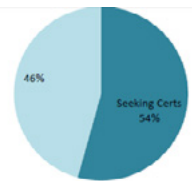
Figure 18 is an Ohio Department of Education Business Management Pathway. In this Pathway, students can see certifications along the way to a bachelor's degree in the Business Management field.

The goal of the entire work-based learning component is to build student aspiration and vision for life after high school. Students need to connect their current coursework with future goals so that they can complete their credentials and be prepared to stay in the OAC region and contribute to building an ongoing and vibrant workforce.

Skills & Certifications

0-2 Years' Experience | Oct-Nov 2014

1012 Jobs found posted for entry-level workers. 550 of these Postings want a certification



Top 10 Certifications by Volume

Certifications	# Ads
Commercial Driver's License (CDL)	119
Certified Registered Nurse (RN)	58
Certified Purchasing Manager (CPM)	33
Certification in Cardiopulmonary Resuscitation (CPR) (OSHA)	31
Occupational Safety & Health Administration Certification (OSHA)	27
Health Insurance Portability and Accountability Act - HIPAA (HIPAA)	24
Food safety programs (HACCP)	17
Licensed Practical Nurse (LPN)	15
Pharmacy Technician (PT)	15
Tanker and Hazmat Endorsement	14

Figure 15. Top Skills & Certifications identified in the OAC East Central Region.

TOP TITLES

# ADS	SOC NAME	# ADS	SOC NAME
120	Heavy and Tractor-Trailer Truck Drivers	27	Insurance Sales Agents
78	First-Line Supervisors of Retail Sales Workers	22	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
73	Retail Salesperson	21	Maintenance and Repair Workers, General
45	First-Line Supervisors of Food Preparation and Serving Workers	21	Stock Clerks, Sales Floor
36	Registered Nurses	19	Pharmacy Technicians
29	Customer Service Representatives	16	Sales Agents, Financial Services

Figure 16. Top Employment Opportunities in the OAC East Central Region.

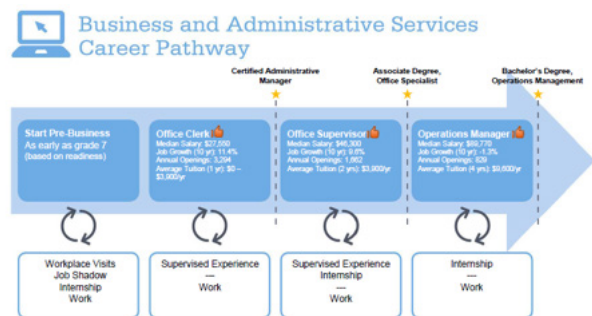


Figure 18. Business Management Pathway, Ohio Department of Education

COMPONENT 4: Career Advising & Counseling



The [OAC] project has significantly enhanced opportunities and ‘leveled the playing field’ for students from small, rural schools ... increasing college interest and preparation for students who might not previously have considered post-secondary options, as well as improving the high school experience for academically advanced students who otherwise had to take advanced classes elsewhere and thus skip extracurricular activities.” — *OAC Teacher*

Career advising and counseling is a process for students to help them discover their strengths, weaknesses, and aspirations for the workplace and in the community at large. In this process, students gain the knowledge and skills needed to make future career and life decisions.

Career Pathways integrate academic instruction with rigorous coursework that are aligned to a student’s interests. While these pathways combine specific courses and skills that are necessary in career fields, there is also a great deal of overlap between these pathways. This overlap is different from what is commonly known as tracking. Overlap and pathways allow students to choose their pathway at any grade level. And, students have the flexibility to explore a pathway, see how it aligns to their personal goals and interests, and then adjust as needed. Career exploration begins in elementary school. Students are not expected to know exactly what career they will choose in elementary school, but the exploration process is key to opening up future possibilities. This flexible exploration is supported through career guidance by school counselors. Counselors in the OAC not only have the resources to help students find the right pathway fit, but they help students and parents see the overlap of skills needed for each pathway.

The OAC has developed resources for schools to use to develop a K–12 career advising process. In this process, schools can expose students to early work-based exploration and learning through the course of their academic careers. Figure 19, below left, is an example of such a program for sixth grade students.

UDECIDE
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Career Counseling Plan, Grades 6-12

Color Key

- Grade 6
- Grade 7
- Grade 8
- Grade 9
- Grade 10
- Grade 11
- Grade 12

GRADE 6: CAREER EXPLORATION AND INTERESTS

Grade 6 Student Activities	Tools and Assessments	Timeline	School Activities Coordinated by School Counselors and Teachers	Learning Environment/Responsibility	Timeline	(+) Resources Have (-) Resources Needed
Set up OhioMeansJobs K-12 account	OhioMeansJobs K-12 Backpack or other career-information system		Field trips to businesses that represent in-demand career fields	School Counselor Advisor		
• Learning Style Survey • Review results	See list of resources		Career speakers and presentations in classroom or whole school	School Counselor Advisor		
• Career Cluster Inventory • Review results	OhioMeansJobs K-12 Backpack or other career-information system		Advise students as to their learning style survey and career interest results	School Counselor Advisor		

Powered by: Ohio Appalachian Collaborative Accelerating College/Career Readiness | STRAIGHT FUND

Figure 19. Model Career Advising Plan for OAC Schools

In addition to a school-wide plan, OAC schools use the template in Figure 20, below, developed by the Ohio Department of Education, as an Individual Student Success Plan. Every student in the school can develop these plans over time to guide their future educational and career choices.

Ohio | Department of Education

Student Success Plan

A Student Success Plan is one component of the Career Connections K-12 Framework. This outline provides an example of the supports, services, tools and activities that comprise a comprehensive career development experience for students. It can serve as a model for staff when developing Student Success Plans with students. Note that this outline is not exhaustive and other curricula and services are required. Individual student readiness should be considered when determining the most appropriate age or grade for each respective component of this outline. Leveraging an online career planning tool to document activities and experiences, such as OhioMeansJobs K-12, is highly recommended.

Overview of the Student Success Plan Outline

	6	7	8	9	10	11	12
Learning style	x			x			x
Career interests	x	x	x	x	x	x	x
Strengths/skills				x	x	x	x
Work values						x	x
Academic and career pathways	x	x	x	x	x	x	x
School courses and programs	x	x	x	x	x	x	x
Career exploration activities	x	x	x	x	x	x	x
Postsecondary education and training programs			x	x	x	x	x
College and career planning and preparation					x	x	x

Figure 20. Model Student Success Plan, Ohio Department of Education

IMPACT OF THE OAC

The 27 districts in the OAC, much like the early “First Forty-Eight” founders of Ohio, have forged a successful pathway for rural educators everywhere. In spite of the many challenges of rural life, the OAC has collaborated to enable students in the region to build their own successful pathways to their futures. One example of this impact is in Figure 21, demonstrating the growth in one of the OAC school districts, Switzerland of Ohio. The Switzerland of Ohio Local School District is a rural school district located in Southeastern Ohio that covers all of Monroe County and parts of Belmont County and Noble County. Approximately 2,700 students attend six elementary schools, three high schools, and one career center in the district. Switzerland of Ohio covers more than 500 square miles and is the largest geographical district in the state.

As an entire collaborative, the OAC has made significant gains, particularly in:

- Dual enrollment and student impact
- Academic and technical coursework impact
- Impact on OAC families
- Project sustainability

For an overall, more detailed look at impact, the success has been widespread in the following areas:

DUAL ENROLLMENT & STUDENT IMPACT

- It was anticipated that 231 courses would be available in OAC districts this year, and currently that number is hovering at 250. ***In this upcoming school year (2015–16), the number of course offerings is anticipated to increase to 302.*** These courses range from accounting and structural engineering to Mandarin Chinese and global politics.
- The project also needs teachers who are credentialed for dual enrollment to make sure that students have opportunities to take college level courses. ***In the 2014–2015 school year 156 teachers in the 27 OAC school districts are credentialed as adjunct faculty with partnering institutions of higher education. As a result of Straight A investments in this program, that number will increase to 234 in the upcoming school year.***
- ***Students are being provided with dual enrollment opportunities through partnerships with 14 partner institutions of higher education.*** These institutions, both public and private, recognize and understand the value of dual enrollment. Prior to Ohio’s College Credit Plus program, many of these institutions had committed to a per-semester credit hour fee of below \$40, which fits within the OAC’s sustainability plan and that plan is being reworked to reflect this.

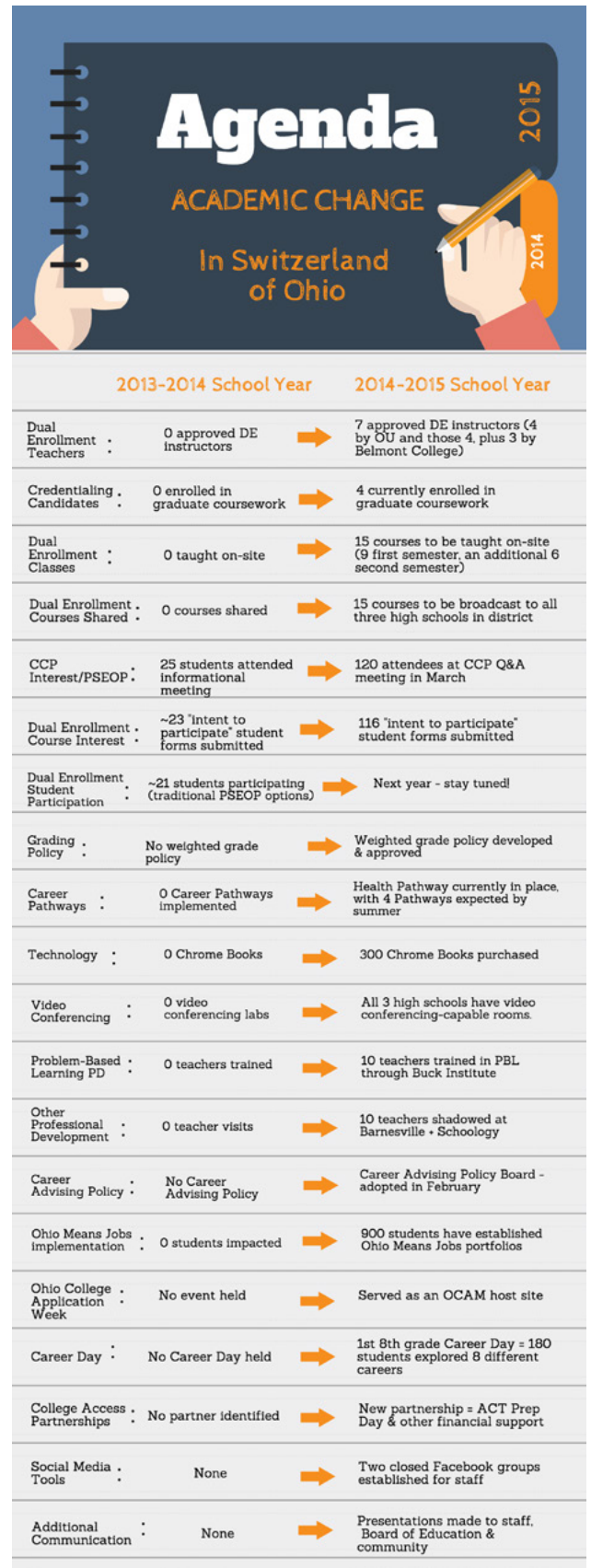


Figure 21. Switzerland of Ohio Case Study, Impact of the OAC

ACADEMIC AND TECHNICAL COURSEWORK IMPACT

- In the original project plan, it was anticipated that by 2019, students would earn approximately 21,066 credit hours in total. **This year (2014–2015) alone, OAC students have earned 12,669 credit hours.** Instead of OAC kids earning around 4,000 credits per year, there is no doubt that credit hours will exceed 15,000 per year by the time the OAC Straight A work is fully implemented.
- When considering the reach of this project, the goal has been to engage as many students as possible by equipping them with the knowledge to handle the rigors of college coursework and the confidence to know higher education is meant for them if that's the path they choose. This past December (2014), the dual enrollment participation goals were updated to reflect that OAC students were on track to exceed them—significantly. Initial project assumptions were that just over 2,000 high school students would take advantage of dual enrollment. The happy surprise was the high demand from OAC students and their families for these types of programs.
- As part of these updated metrics, it was anticipated that 2,465 students would be reached in this school year. **Based on current enrollment information and assumptions that most students in dual enrollment take at least two courses, the OAC is on track to support approximately 2,889 students in this academic school year (2014–15) in their quest to earn college credit.**

IMPACT ON OAC FAMILIES

Many OAC students will get a head start in their chosen path transitioning into adulthood. Information regarding avoided tuition costs for our students and their families is being collected. Based on dual enrollment student engagement, **these students and families are well on their way to saving nearly \$3 million—in just this year (2014–2015) alone—in tuition, or in other words, avoided debt.** OAC students are from areas of the state that struggle economically, and the opportunity to save money on higher education means that many of them will consider college a feasible option.

To date, the OAC has achieved real cost savings and deployed smart efficiencies to demonstrate the responsible use of taxpayer investments. As a result, the OAC Straight A project has achieved the following:

- 63 percent of districts improved their IT infrastructure improving access for 44,000 students.
- While many districts were already leveraging online learning, an additional 17 districts, and approximately 185 classrooms now have the capacity for blended learning (classroom and online learning), impacting 7,700 more students.
- Funds are supporting the conversion of an estimated 48 classrooms into high-tech learning spaces, impacting nearly 2,000 students across the collaborative.
- Overall, the collaborative realized over \$260,000 in technology equipment savings through pooled purchasing (around \$6 per child).
- 21 districts opted to purchase laptops, iPads, Chromebooks, and smart board tools, potentially impacting nearly 320 classrooms and 13,000 students across the collaborative.

PROJECT SUSTAINABILITY

There are several moving targets in the OAC Straight A project sustainability planning, which has necessitated some adjustments.

- College Credit Plus (CCP) represents a significant policy shift, and though the OAC is exempt from the rules of this program, many prospective higher education partners have walked away from negotiations and refused to set fees below the \$40 floor. **As a result of CCP, our districts must find an additional \$500K per year to support this dual enrollment program beyond the anticipated sustainability costs** with equipment, professional development for staff, and upgrading connectivity over time to accommodate blended learning opportunities.
- Many OAC students have, in the past, participated in post-secondary enrollment options. As part of the transition to dual enrollment taught at the high school level utilizing teachers who have adjunct status at a partner institution of higher education, it is anticipated that more PSEO students will choose to return to their home districts. This transition represents significant savings to OAC districts and contributes to their sustainability planning. PSEO enrollment information is not available until July of this year (2015), and at that time progress toward sustainability will be able to be assessed.

The metrics and full impact of the OAC is represented in Figure 22, OAC's Data Dashboard.

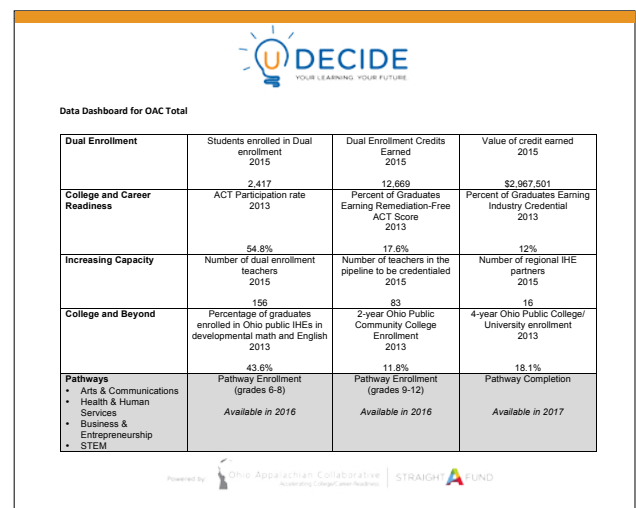


Figure 22. OAC Data Dashboard

CONCLUSION

Because of the collaboration and hard work of the educators in the OAC, the road through Ohio's rural education system is now a more robust, state-of-the-art pathway. Indeed, this is what Wilbur Wright envisioned when he encouraged others to move to Ohio for a high quality, successful life. Ohio continues to lead the way in a true pioneering spirit, forging the way and building pathways that are impacting the educational landscape of 21st century rural education.

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