



COLUMBUS MSA

PROMISING CREDENTIALS

ALIGNING DUAL ENROLLMENT WITH HEALTH
CARE LABOR MARKET NEEDS

PREPARED BY

Leah Moschella
Senior Program Manager
JFF

Julia di Bonaventura
Program Manager
JFF

FOREWORD

Great Lakes College and Career Pathways Partnership

Funded by the Joyce Foundation, the Great Lakes College and Career Pathways Partnership (GLCCPP) supports four Great Lakes communities in building high-quality college and career pathways that equip students—particularly historically marginalized students or underrepresented groups—to thrive in college, career, and beyond. The Joyce Foundation created this funding opportunity in 2015 as one strategy to improve the educational and employment outcomes of residents in the Great Lakes region. Its approach is to identify, document, and scale programmatic and policy innovations.

Based on their dedicated leadership, strong K-12 and postsecondary partnerships, vision for enhancing college and career pathway systems, student population needs, and high employer involvement, the Joyce Foundation chose the following communities for this opportunity:

- The Central Ohio / Greater Columbus area
- Madison, Wisconsin
- Northwest Chicago suburbs, Illinois
- Rockford, Illinois

The Joyce Foundation also designated three national leaders in college and career pathway development to provide strategic technical assistance to these regions as they build and expand their pathway systems: JFF's Pathways to Prosperity team, ConnectEd- The National Center for College and Career Readiness, and the Education Systems Center at Northern Illinois University.

Through GLCCPP, these four regions are bridging stakeholders across secondary, postsecondary, and workforce systems to align education with career opportunities in high-demand industries. In each region, pathways are collaboratively designed to include a variety of college and career preparation strategies, including work-based learning and early college credit. The aim is to enable students to pursue a two- or four-year degree and obtain a credential that has value in the labor market.

Promising Credentials and Program of Study Analysis

JFF works with regions to reverse engineer grades 9 through 14-plus pathways from the labor market to in-demand postsecondary credentials to dual enrollment offerings at the high school level. This process begins with an analysis of the regional labor market and postsecondary certificates and degrees, which reveals postsecondary credentials that are particularly sought

after in the labor market. JFF coined the term “promising credentials,” which refers to postsecondary credentials that lead to occupations that are in-demand, offer a family-supporting wage, and provide opportunity for growth within the industry.

JFF then analyzes and maps the programs of study for each postsecondary credential to identify the highest-leverage courses that should be included in a grades 9 through 14-plus (9-14+) pathway program. JFF developed the terms “door opener dual enrollment” and “strategic dual enrollment” for courses that are high-leverage, nonremedial, core academic, and technical dual enrollment courses for high school students who have not yet matriculated into a formal degree program.

Door opener dual enrollment courses are college-level courses that provide high school students with foundational industry exposure and are required by the highest quantity of credentials within a career pathway. These courses provide the most postsecondary credentialing options for students. Strategic dual enrollment courses are college-level courses for high school students that apply to credential requirements and lead to specific labor market-aligned, high-growth, high-wage careers within an industry. As they are aligned with promising credentials, strategic courses accelerate a student on a pathway to a particular high-demand career in the labor market. Both door opener and strategic dual enrollment courses are important tools that young people can leverage as they move along pathways from high school, through college, and into careers.

INTRODUCTION

In Columbus, Ohio, many stakeholders are working together to help young people achieve their educational and career goals and build a thriving regional economy by crafting 9-14+ career pathways. This community of stakeholders comprises representatives from across Greater Columbus, including Columbus State Community College, the Central Ohio Compact, and the cities and school districts of Marysville, Pickerington, Whitehall, Licking Heights, and Westerville. These stakeholders previously identified health care as a promising sector to focus on as they develop 9-14+ career pathways.

Educational stakeholders at both the postsecondary and secondary levels use labor market information to design relevant programs of study that put students in Columbus on track for high-growth, high-wage careers. High school students in Greater Columbus who meet academic prerequisites and school requirements can take dual enrollment courses to earn college credit at Columbus State Community College as part of their high school core requirements. This opportunity can accelerate students on a pathway to achieve a postsecondary credential with value in the current and future regional labor market.

HEALTH CARE IN COLUMBUS

Health care has proven to be a high-demand, labor market-aligned industry with opportunities for career advancement and family-supporting wages. Data from Emsi and the US Bureau of Labor Statistics indicate that the health care industry in Columbus is growing, with 173,290 jobs projected by 2026, up 23 percent from 2016 levels. This is an increase of nearly 33,000 health care positions in the Columbus, Ohio, Metropolitan Statistical Area (Columbus MSA) over one decade.

The median annual salary in the health care industry in Columbus is \$44,882, which is lower than the median household income of \$47,156.¹ In Columbus, the living wage is \$10.75 per hour for a single adult and \$23.03 per hour for a single adult who supports one child.²

Several of the top 10 growing health care occupations are nursing, nursing support, health care administration, or clerical positions (*see Table 1*). However, only one of the top 10 occupations, registered nurses, offers a family-supporting wage. While nursing support occupations like home health aides and nursing assistants are expected to grow significantly, these jobs offer very low wages. Fortunately, the health care industry in Greater Columbus is robust and offers a wide array of promising careers that are high-growth, high-wage, and aligned with the Columbus State Community College health science program of study.

Labor Market Snapshot

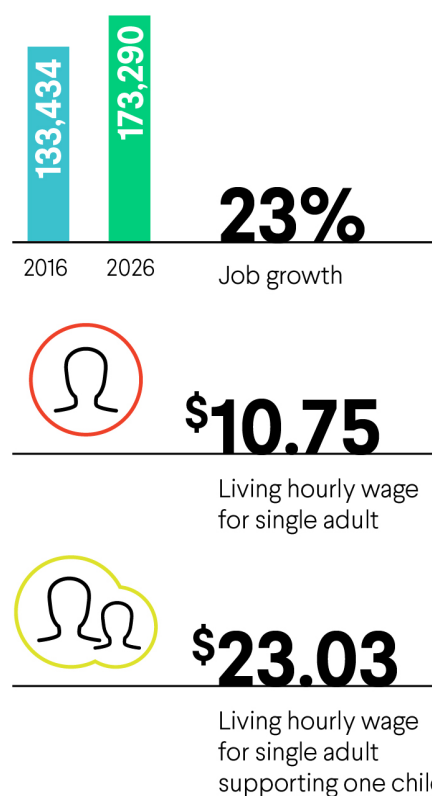


Table 1: Top 10 Health Care Occupations in Columbus MSA by Job Growth³

Occupation	Employed in Industry (2016)	Employed in Industry (2026)	# Change	Median Hourly Earnings	Typical Entry-Level Education
Home Health Aides	16,409	20,883	4,474	\$10.60	No Formal Educational Credential
Registered Nurses	17,060	21,397	4,337	\$29.37	Bachelor's Degree
Personal Care Aides	6,699	9,978	3,279	\$10.52	No Formal Educational Credential
Nursing Assistants	8,168	9,657	1,489	\$12.10	Postsecondary Nondegree Award
Medical Secretaries	6,838	8,042	1,204	\$15.77	High School Diploma or Equivalent
Medical Assistants	3,455	4,471	1,016	\$15.23	Postsecondary Nondegree Award
Licensed Practical and Licensed Vocational Nurses	4,423	5,389	966	\$19.77	Postsecondary Nondegree Award
Receptionists and Information Clerks	1,848	2,505	657	\$12.18	High School Diploma or Equivalent
Office Clerks, General	1,622	2,082	460	\$15.40	High School Diploma or Equivalent
Dental Assistants	2,087	2,543	456	\$18.28	Postsecondary Nondegree Award

Source: Emsi 2016.1–QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietor

Promising Health Care Credentials in Columbus

Students in the Greater Columbus region who are interested in the health science field can enroll in Columbus State Community College to earn a certificate, an associate's of technical studies (ATS) degree, associate's of applied science (AAS) degree, associate's of arts (AA) degree or an associate's of science (AS) degree. Depending on which certificate or degree they pursue, students who participate in the Columbus dual enrollment program will graduate with widely varying prospects for local employment and wages (*see Table 2*).

Table 2: Health Science Offerings at Columbus State Community College by Job Growth⁴

Credential Conferred	Occupation	Employed in Industry (2016)	Employed in Industry (2026)	# Change	Median Hourly Earnings	Typical Entry-Level Education
Registered Nurse (AAS)	Registered Nurses	17,060	21,397	4,337	\$29.37	Bachelor's Degree
Patient Care Assistant Certificate	Nursing Assistants	8,168	9,657	1,489	\$12.10	Postsecondary Nondegree Award
Medical Assistant Certificate	Medical Assistants	4,071	5,193	1,122	\$15.23	Postsecondary Nondegree Award
Medical Assisting (ATS)	Medical Assistants	4,071	5,193	1,122	\$15.23	Postsecondary Nondegree Award
Licensed Practical Nurse Certificate	Licensed Practical and Licensed Vocational Nurses	4,423	5,389	966	\$19.77	Postsecondary Nondegree Award
Healthcare Management (AAS)	Medical and Health Services Managers	3,283	3,851	568	\$43.58	Bachelor's Degree
Healthcare Management Certificate	First-Line Supervisors of Office and Administrative Support Workers	987	1,299	312	\$25.99	High School Diploma or Equivalent

Dental Hygiene (AAS)	Dental Hygienists	1,510	1,808	298	\$35.29	Associate's Degree
Health Information Management Technician Certificate	Medical Records and Health Information Technicians	1,349	1,646	297	\$17.44	Postsecondary Nondegree Award
Health Information Management Technology (AAS)	Medical Records and Health Information Technicians	1,349	1,646	297	\$17.44	Postsecondary Nondegree Award
Medical Coding Certificate	Medical Records and Health Information Technicians	1,349	1,646	297	\$17.44	Postsecondary Nondegree Award
Massage Therapy Certificate	Massage Therapists	1,025	1,264	240	\$15.33	Postsecondary Nondegree Award
Massage Therapy / Entrepreneurship (ATS)	Massage Therapists	1,025	1,264	240	\$15.33	Postsecondary Nondegree Award
Pharmacy Technician Certificate	Pharmacy Technicians	2,374	2,582	207	\$14.09	High School Diploma or Equivalent
Exercise Science (AAS)	Physical Therapist Assistants	696	879	183	\$27.05	Associate's Degree
Exercise Science Athletic Performance Track (AAS)	Physical Therapist Assistants	696	879	183	\$27.05	Associate's Degree
Veterinary Technology (AAS)	Veterinary Technologists and Technicians	969	1,125	157	\$16.28	Associate's Degree
Surgical Technology (ATS)	Surgical Technologists	632	786	155	\$19.41	Postsecondary Nondegree Award

Surgical Technology Certificate	Surgical Technologists	632	786	155	\$19.41	Postsecondary Nondegree Award
GXMO Medical Imaging Certificate	Radiologic Technologists	1,234	1,383	149	\$26.55	Associate's Degree
Medical Imaging (AAS)	Medical and Clinical Laboratory Technicians	1,149	1,266	117	\$20.23	Associate's Degree
Medical Laboratory Technology (AAS)	Medical and Clinical Laboratory Technicians	1,149	1,266	117	\$20.23	Associate's Degree
Clinical Laboratory Assisting Certificate	Medical and Clinical Laboratory Technicians	1,149	1,266	117	\$20.23	Associate's Degree
Sterile Processing Certificate	Medical Equipment Preparers	301	386	85	\$15.39	High School Diploma or Equivalent
Sterile Processing Technology (ATS)	Medical Equipment Preparers	301	386	85	\$15.39	High School Diploma or Equivalent
Phlebotomy Certificate	Phlebotomists	613	636	23	\$15.20	Postsecondary Nondegree Award
Wellness and Health Promotion (AAS)	Athletic Trainers	99	120	21	\$23.44	Bachelor's Degree
Exercise Specialist Certificate	Fitness Trainers and Aerobics Instructors	51	65	14	\$11.98	High School Diploma or Equivalent
Respiratory Care (AAS)	Respiratory Therapy Technicians	72	73	1	\$20.55	Associate's Degree

Source: Emsi 2016–QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended

For example, a nurse aide training program certificate could lead to a career as a certified nursing assistant, a job with growing demand both in Greater Columbus and across the country. However, the median hourly wage for a certified nursing assistant in Columbus is just \$12.10. While this certificate could be a stepping stone to other health care jobs that offer higher wages and opportunities for professional growth and career advancement, alone it does not offer a clear route to economic advancement or a viable career ladder in the industry.

A vital goal of 9-14+ career pathway development is to ensure that all young people can access educational opportunities that prepare them for personal and professional success. JFF developed the term “promising credentials” to refer to postsecondary credentials that lead to careers that are in-demand, offer a family-supporting wage, and provide opportunity for growth within an industry.

From a regional labor market perspective, some degree and certificate programs in health science at Columbus State Community College are considered promising credentials and are well suited for 9-14+ pathway development. Encouragingly, Columbus State Community College offers several promising credentials (*see Table 3 and following detail*).

Table 3: Promising Credentials at Columbus State Community College

Credential Conferred	Occupation	Employed in Industry (2016)	Employed in Industry (2026)	# Change	Median Hourly Earnings	Typical Entry-Level Education
Registered Nurse (AAS)	Registered Nurses	17,060	21,397	4,337	\$29.37	Bachelor's Degree
Licensed Practical Nurse Certificate	Licensed Practical and Licensed Vocational Nurses	4,423	5,389	966	\$19.77	Postsecondary Nondegree Award
Healthcare Management (AAS)	Medical and Health Services Managers	3,283	3,851	568	\$43.58	Bachelor's Degree

Healthcare Management Certificate	First-Line Supervisors of Office and Administrative Support Workers	987	1,299	312	\$25.99	High School Diploma or Equivalent
Dental Hygiene (AAS)	Dental Hygienists	1,510	1,808	298	\$35.29	Associate's Degree
Exercise Science (AAS)	Physical Therapist Assistants	696	879	183	\$27.05	Associate's Degree

Source: Emsi 2016.1–QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Nursing Programs

A registered nurse AAS could lead to a career as a registered nurse, which offers a median hourly wage of \$29.37, higher than the family-supporting wage in the area. In Columbus, however, employers typically prefer that entry-level registered nurses have a bachelor's degree in nursing (BSN). While some health care institutions may hire graduates of Columbus State Community College who have a registered nurse AAS degree, this is a challenge for new graduates with limited experience.

On the other hand, a licensed practical nurse certificate could lead to a position as a licensed practical nurse. This occupation is growing in the Columbus region and offers a median hourly wage of \$19.77, slightly lower than the region's family-supporting wage of \$23.03 per hour.

Graduates of Columbus State Community College's registered nurse AAS or licensed practical nurse certificate program could go on to pursue a BSN at a four-year institution such as Ohio State University, Ohio Wesleyan University, Miami University, or Chamberlain College of Nursing, among others.

Healthcare Management AAS

A healthcare management AAS could lead to a career as a medical or health service manager, which offers a median hourly wage of \$43.58. In Columbus, however, employers typically hire entry-level managers who hold a bachelor's degree. While some graduates of this program may be hired for manager-level roles at a health care institution, they are more likely to be hired as entry-level supervisors of office or administrative support workers. These jobs are expected to grow and offer a median hourly wage of \$25.99, which is above the family-supporting wage in Columbus. Graduates can also transfer to a four-year institution such as Franklin University or

Ohio Dominican University to earn a bachelor's of science in healthcare management, and then be hired as a medical or health service manager.

Dental Hygiene AAS

A dental hygiene AAS could lead to a career as a dental hygienist, with a median hourly wage of \$35.29 in the Columbus MSA. Dental hygienist jobs are projected to grow in the region, though at a slower rate than other health care careers. While they do not offer many options for career advancement, dental hygienist positions are considered “lifetime jobs,” as dental hygienists tend to stay in the field for a long time, thanks to high stability and wages.

Exercise Science AAS

An exercise science AAS can lead to a career as a physical therapy assistant, which offers an hourly wage of \$27.05 in Greater Columbus. Physical therapy assistant jobs are projected to grow in the region, though at a slower rate than other health care careers. Graduates can go on to pursue a doctoral degree in physical therapy at many Ohio institutions, including Ohio State University and University of Dayton. Physical therapist jobs in Columbus are growing and offer a median hourly wage of \$36.96.

Aligning Dual Enrollment with Promising Credentials

Ohio's Greater Columbus region is uniquely situated to help high school students earn promising credentials in the health sciences, thanks to two educational policies: College Credit Plus and Career Pathways. Established by the Ohio Department of Education in 2015, College Credit Plus aims to promote rigorous academic pursuits and provide a wide variety of options to college-ready students. Through this statewide policy, students from grades 7 through 12 can take a college course from a public college or university at no cost. This policy provides access to college coursework for all students regardless of financial means. Career Pathways in the Greater Columbus region ensures that students have deliberate educational experiences that link coursework to health-related themes. The Career Pathways policy also embeds work-based and project-based learning opportunities for students to explore health science careers. These combined strategies accelerate students on a path to college and career readiness.

Taking the coursework recommended in this report will not only lead Greater Columbus students to a postsecondary credential in health care, but support stakeholders in building 9-14+ pathways that lead to labor market-aligned promising credentials. It is important to acknowledge that dual credit enrollment requires readiness in math and English for a student to matriculate directly into a postsecondary degree program.

To reach an accelerated pathway to a promising career in Greater Columbus, students must successfully complete the requirements for both their high school diploma and the college-level degree. At Columbus State Community College several technical health science courses are best-suited to be offered as dual enrollment courses (*see Chart 1*). Courses that are required across multiple programs of study and lead to a health science credential are highly strategic. These should be embedded in pathways as part of students' dual credit course sequence while in high school.

Students who take college-level coursework while in high school have not yet matriculated into a specific degree program. For this reason, it is beneficial for them to enroll in courses that provide a broad, foundational opportunity and open doors to many options for further education beyond high school. JFF coined the term “door opener dual enrollment courses” to identify courses that lead to multiple credentials.

At Columbus State Community College, five college-level health science courses qualify to be offered as door opener dual enrollment courses because they lead to a variety of credentials within the health care industry. The five potential door opener dual enrollment courses are: Composition 1, Human Anatomy, Human Physiology, Elementary Statistics, and Medical Terminology (*highlighted in blue in Chart 1*).

Door Opener Dual Enrollment Courses Definition

College-level courses for high school students that provide foundational industry exposure and apply to the highest number of options for postsecondary credentials within a career pathway. They are especially beneficial for students who are interested in an industry but do not know what specific career they want to pursue.

These five potential door opener dual enrollment courses open multiple possibilities across all health science credentials at Columbus State Community College. Composition 1 and Human Anatomy lead to the highest number of credentials overall. However, as previously discussed, not all credentials lead to high-growth occupations with family-supporting wages in the Greater Columbus region. By taking door opener dual enrollment courses, students unlock options for themselves. They can continue their education, transition to entry-level work, attain labor market-aligned promising credentials, and ultimately set a trajectory toward a successful and sustaining career.

Four credentials align with promising careers in Greater Columbus: registered nurse AAS, dental hygiene AAS, exercise science AAS, healthcare management AAS, and licensed practical nursing certificate (*see Chart 2*).

When evaluating a course, it is key to consider both how many credentials it applies toward and whether those credentials lead to labor market-aligned, promising careers. For example, while the course Medical Terminology opens doors to nine credentials at Columbus State Community College, only one (healthcare management AAS) aligns with a promising career based on local labor market information. On the contrary, courses such as Intro to Microbiology and Intro to Psychology are required for two labor market-aligned degrees and certifications.

While potential door opener dual enrollment courses such as Medical Terminology offer a strong technical foundation for students that lead to multiple entry-level industry certifications or stackable credentials, it is also important to analyze a program of study through the lens of the labor market. This enables stakeholders to identify what JFF calls “strategic dual enrollment courses.” Strategic dual enrollment courses lead to the greatest number of promising credentials as identified by regional labor market information.

Strategic Dual Enrollment Courses Definition

College-level courses taken by students in high school that fulfill requirements for credentials that lead to high-growth, high-wage careers.

At Columbus State Community College, Composition 1, Human Anatomy, and Human Physiology are particularly well suited to be offered as strategic dual enrollment courses, all of which are required by all five promising credentials in the region.

Chart 2: Health Science Strategic Dual Enrollment Courses in Columbus

Technical/Pathway Courses	Credential Applicability	Dental Hygiene (AAS)	Healthcare Management (AAS)	Healthcare Management Certificate	Health Information Management Technology (AAS)	Health Information Management Technician Certificate	Medical Coding Certificate	Massage Therapy / Entrepreneurship (ATS)	Massage Therapy Certificate	Medical Assisting (ATS)	Medical Assisting Certificate	Registered Nurse (AAS)	Licensed Practical Nursing Certificate	Medical Laboratory Technology (AAS)	MLT Clinical Laboratory Assistant Certificate	Multi-Skilled Health (AAS)	Exercise Science (AAS)	Phlebotomy Certificate	Medical Imaging (AAS)	GXMO Certificate	Patient Care Assistant Certificate	Respiratory Care (AAS)	Sterile Processing (ATS)	Sterile Processing Technology Certificate	Surgical Technology (ATS)	Surgical Technology Certificate	Veterinary Technology (ATS)	Pharmacy Technician Certificate	Athletic Performance Track (AAS)	Wellness and Health Promotion (AAS)	Sport Management (AAS)	Exercise Certificate			
		Composition 1*	21	✓	✓		✓			✓		✓	✓	✓	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	✓			
Human Anatomy*	16	✓	✓		✓	✓	✓					✓	✓	✓			✓		✓			✓	✓		✓	✓			✓	✓	✓				
Human Physiology*	12	✓	✓									✓	✓				✓		✓			✓	✓		✓	✓			✓	✓					
Elementary Statistics	11	✓			✓							✓		✓								✓	✓		✓	✓									
Medical Terminology	9		✓					✓	✓		✓						✓		✓																
Advanced Medical Terminology	7		✓							✓																									
Intro to Microbiology*	7	✓										✓				✓						✓	✓		✓	✓									
Pharmacology	7				✓	✓	✓				✓														✓	✓									
Anatomy and Physiology 1	7										✓						✓											✓	✓		✓				
Anatomy and Physiology 2	6										✓						✓											✓	✓		✓				
Fundamentals of Human Anatomy and Physiology*	6				✓	✓	✓							✓						✓															
Interpersonal Skills	6		✓					✓	✓	✓						✓													✓						
Intro to Medical Coding and Reimbursements	6				✓	✓				✓	✓			✓																					
Computer Concepts and Applications	5			✓	✓	✓													✓	✓															
Math Concepts for Business	5									✓															✓	✓				✓	✓				
Elements of Organic and Biochemistry*	5	✓	✓											✓			✓					✓													
College Algebra*	5		✓														✓		✓											✓					
Kinesiology	5							✓	✓								✓												✓					✓	
Responding to Emergencies	5		✓					✓	✓													✓												✓	
Intro to Psychology*	4	✓								✓		✓					✓																✓		

SUMMARY

Education and industry stakeholders in Ohio’s Greater Columbus region are engaged in strong partnerships to identify and design 9-14+ pathways that lead to occupations with career advancement opportunities and family-supporting wages. To design high-quality college and career pathways, it is important to clearly define and determine coursework that leads directly to credentials with value in the regional labor market.

In Greater Columbus, students can access a number of promising credentials (*see Recommended Courses and Credentials*). In determining which courses to take, guidance counselors and students should consider not only their interests but also which courses are most likely to put them on a path to a high-demand, high-wage career. While recommended door opener dual enrollment courses such as Medical Terminology provide foundational exposure for a significant number of health care credentials at Columbus State Community College, Composition 1, Human Anatomy, and Human Physiology are recommended strategic dual enrollment courses that lead students more directly to labor market-aligned credentials.

Recommended Health Science Courses and Credentials in Columbus, Ohio

Promising Credentials	Door Opener Dual Enrollment Courses	Strategic Dual Enrollment Courses
Registered Nursing AAS	Composition 1	Composition 1
Licensed Practical Nursing Certificate	Human Anatomy	Human Anatomy
Healthcare Management AAS	Human Physiology	Human Physiology
Healthcare Management Certificate	Elementary Statistics	
Dental Hygiene AAS	Medical Terminology	
Exercise Science AAS		

RECOMMENDATIONS

To effectively design pathways that lead young people to successful careers requires a much broader approach than just aligning coursework with labor market information. The following recommendations are important for continued refinement and implementation of health science pathways in Greater Columbus, Ohio, and for any community engaged in similar work.

1. Adapt 9-14+ health science pathway programs of study to prioritize door opener dual enrollment courses that provide foundational industry exposure and ensure that students have many options when they transition to postsecondary. When appropriate, incorporate strategic dual enrollment courses, which increase students' opportunities to earn credentials or degrees that launch high-wage, high-growth careers.
2. Identify and adapt postsecondary health science programs of study to increase the credential applicability of recommended foundational door opener dual enrollment courses such as Medical Terminology.
3. Analyze and consolidate courses that may lead to similar competencies such as Human Anatomy and Anatomy, and Physiology 1 and 2. This will increase the credential applicability of recommended strategic dual enrollment courses such as Human Anatomy and Human Physiology.
4. To support students through multiple stages of academic and career development, identify and pursue strategic opportunities to align and streamline industry-recognized credentials to stackable associate's degree-level credentials. Every step must align with promising careers in the region.
5. Provide training for guidance counselors and advisors to review degree opportunities, dual enrollment, and labor market information with students. Ensure that support staff have the resources to communicate career growth, wage data, and course outcomes directly to students. Embed labor market discussions into sustained career advising. Include labor market information in discussions about industry credentials as a high school graduation pathway in Ohio.
6. Vet data and program outcomes with regional industry leaders to determine labor market needs that cannot be identified by external evaluations. Work with industry leaders to identify in-demand employability and technical competencies.
7. Develop systems for career exploration that incorporate student interest, passion, and career exposure to help youth make informed choices about their futures.
8. Conduct further analysis to account for students who relocate, including job opportunities in neighboring labor markets.

9. Identify barriers, particularly those faced by historically marginalized populations, to enrollment in dual credit courses. The goal is to increase the number of students who can access dual credit coursework. This includes providing early supports for academic readiness in English and math.



JFF is a national nonprofit that drives transformation in the American workforce and education systems. For 35 years, JFF has led the way in designing innovative and scalable solutions that create access to economic advancement for all.

In 2012, building upon interest and demand at the state and national levels for better secondary-postsecondary technical pathway systems, JFF launched Pathways to Prosperity. PtoP is a partnership with the Harvard Graduate School of Education and state, regional, and local stakeholders from across education, employers, and government, with the long-term goal of creating systems of secondary through postsecondary career pathways that serve most students. PtoP focuses on five implementation levers: grades 9-14+ integrated college and career pathways, career information and advising systems, employer engagement and work-based learning, effective intermediaries, and supportive state policy and leadership. PtoP currently works with 15 states and over 60 regions across the country to ensure that all young people—including lower-income young people—have the skills and credentials needed to succeed in our economy.

This Report

The recommendations in this report were informed by an analysis of regional labor market information, a survey of the Columbus State Community College Health Science programs of study, and conversations with local stakeholders from secondary, postsecondary, and workforce institutions. The labor market information reflects data from Emsi, the US Bureau of Labor Statistics, and real-time Burning Glass data for the Columbus MSA. Credential and course data in this report reflect information collected from a course audit conducted by JFF in February of 2018. Living wage data is collected from the MIT Living Wage Calculator (<http://livingwage.mit.edu>). In this report, a family-supporting wage is defined as a living wage for a single adult who supports one child.

END NOTES

¹ U.S. Census Bureau, n.d., <https://www.census.gov/>.

² “Living Wage Calculator,” Massachusetts Institute of Technology, 2018, <http://livingwage.mit.edu/>.

³ Wages highlighted in red are wages below a living wage for a single adult supporting one child.

⁴ Associated occupation options in Tables 2 and 3 were sourced from the Columbus State Community College website. Table 2 does not reflect all Columbus State Community College Health Science certificate and degree offerings.

⁵ Chart 1 does not reflect all Columbus State Community College Health Science certificate and degree offerings. Some specific short-term certificates have been omitted. Technical Pathway Courses with an asterisk (e.g., “Composition 1*”) indicate courses that are part of the Ohio Transfer Module and are transferable and apply toward general education subject areas at Ohio’s public colleges and universities.