

Examining the Value of Education Beyond High School in Ohio: Southwest Region Profile

December 13, 2023



Introduction

Pursuit of education beyond high school is an investment of time, money, and resources. The effort to examine the value of education and training beyond high school aims for students and communities to see a return on investment for graduates that expands workforce and economic opportunities for all.

As community leaders review the data in this report, the following questions may help determine what meaning and desired next steps of inquiry or action may be helpful for the region and for Ohio:

Enrollment:

- What are education and training enrollment patterns in our region?
- How are students from low-income backgrounds and students of color participating in education beyond high school?

Access Pipeline:

- What are college going rates for high school students?
- Are they getting a head start on college while in high school?
- Are some communities and groups of students having greater challenges in accessing education and training after high school?
- What districts, organizations, and strategies are advancing access?

Completion:

- Are students in our region completing their education so that they may reap the value in the workforce?
- What communities and groups of students are far below the average in completion rates?
- Which institutions are showing excellence in completion rates for a diversity of student groups?

Post-school outcomes:

- Are graduates in our region earning an economic return on their investment in education at our public adult technical centers, colleges, and universities? In which institutions are students seeing an economic return?

Alignment to industry:

- What are the growing jobs and industry sectors in our region?
- Are the growing jobs paying median wages above the state median?
- Is our region producing graduates in those growing jobs and the priority industry sectors?
- Are some populations underrepresented within our region among those completing education in the industry sectors?

Southwest Ohio Demographics

Southwest Ohio encompasses five counties - Brown, Butler, Clermont, Hamilton, and Warren – as defined by Jobs Ohio.¹ As of 2020, 14% of Ohio's population lived in the Southwest region. The region has 75% of residents identifying as White, 15% as African American/Black, 4% as Hispanic or Latino/a/x, 3% as Asian or Pacific Islander, 3% as two or more races, and less than 1% Indigenous/ American Indian.²

¹ [MapJobsOhioNetwork.pdf \(ohiolmi.com\)](https://www.ohiolmi.com/MapJobsOhioNetwork.pdf)

² US Census Bureau, American Community Survey 2020

As of 2020, the Southwest region's population age 25 and up had one of the highest levels of education attainment compared with other Ohio regions, with 8% having an associate degree, 22% a bachelors, and 14% a graduate or professional degree.

Enrollment and Access Beyond High School

Matching data from the National Center for Education Statistics College Navigator³ and the Postsecondary Value Equitable Value Explorer⁴, this summary defines the Southwest Region as home to 34 public and private institutions offering degrees and post-high school certificates. These include 13 proprietary (for-profit) institutions, 10 private institutions, and 11 public institutions.⁵

UNDERGRADUATE ENROLLMENT

In the Southwest region, there were 4,245 post-secondary students (sub-baccalaureate certificates, associate, and baccalaureate programs) enrolled in proprietary institutions, 10,509 students enrolled in private institutions, and 77,425 students enrolled in public institutions in 2018-2019.⁶ The largest proprietary institution in the region was Galen College of Nursing – Cincinnati (1,031 students), and the largest private institution was Xavier University (5,360 students). The largest institutions overall were all public, including the University of Cincinnati – Main Campus (30,173 students), Miami University – Oxford (18,631 students), and Cincinnati State Technical and Community College. Enrollments are shown in Table 1.

DISAGGREGATED DEMOGRAPHIC ENROLLMENT

In the Southwest, the percentage of Pell recipients in 2017-2018 ranged from 17% - 98% at proprietary institutions, 0% - 52% at private institutions, and 11% - 44% at public institutions.^{iv} Nine of the 13 proprietary institutions had over 50% of their enrollment receiving Pell grants, and six of the 10 private institutions had over 40% of their enrollment receiving Pell grants.

Proprietary institutions also had more racially diverse enrollments compared to private and public institutions, with nine of the thirteen proprietary institutions having more than 50% of their enrollments as students of color. The private institutions with the largest populations of students of color were Chatfield College with 40% of students identifying as Black and Union Institute & University with 17% of students identifying as Black and 28% identifying as Hispanic. Public institutions with the largest populations of students of color included University of Cincinnati-Blue Ash (30%) and Cincinnati State Technical and Community College (29%). See Table 1.

While proprietary schools have a higher proportional enrollment of students of color and students receiving Pell, they enroll a smaller percentage of students in the region. The numbers of students who are Pell recipients or students of color at the University of Cincinnati are greater than the total enrollment of students in the region's proprietary schools.

³ [College Navigator - National Center for Education Statistics](#)

⁴ [Equitable Value Explorer - Postsecondary Value Commission](#)

⁵ Southern State Community College has more than one campus, including one in Brown County but is listed as a single institution in Highland County in the available data so will not be included in the Southwest analysis.

⁶ Enrollment data sourced from [Equitable Value Explorer - Postsecondary Value Commission](#) which used 2018-2019 cohort data from IPEDS.

Table 1. Southwest Ohio Public Postsecondary Institutions by Enrollment, Estimated Annual Net Price, % Pell, and % Students of Color

| | Public Institutions | Undergraduate Enrollment | Estimated Annual Net Price | % Pell | % Students of Color ⁷ | Overall Post-School Median Earnings |
|-----------------------------------|--------------------------------------------------|--------------------------|----------------------------|--------|----------------------------------|-------------------------------------|
| Predominantly Certificates | Butler Technology and Career Development Schools | 304 | -- | 44% | 17% | \$53,917 |
| | Great Oaks Career Campuses | 345 | -- | 31% | 18% | \$55,462 |
| | US Grant Joint Vocational School | 108 | -- | 41% | 0% | \$31,893 |
| | Warren County Career | 356 | -- | 25% | 10% | \$43,735 |
| Predominantly Associates | Cincinnati State Technical and Community College | 12,042 | \$10,247 | 34% | 29% | \$40,769 |
| | University of Cincinnati-Blue Ash | 6,045 | \$21,792 | 37% | 30% | \$55,281 ⁸ |
| | University of Cincinnati-Clermont | 4,145 | \$20,879 | 32% | 8% | \$55,281 |
| Predominantly Bachelors | Miami University-Hamilton | 3,297 | \$22,693 | 37% | 17% | \$60,039 |
| | Miami University-Middletown | 2,335 | \$23,070 | 29% | 9% | \$60,039 |
| | Miami University-Oxford | 18,631 | \$25,347 | 11% | 13% | \$60,039 |
| | University of Cincinnati-Main | 30,173 | \$24,225 | 22% | 15% | \$55,281 |

Data Source: Equitable Value Explorer

NINTH GRADE COHORT COLLEGE GOING RATE BY ECONOMIC STATUS, RACE, & GENDER

Data from 2013-2014 and 2014-2015 cohorts show that overall, 60% and 58%, respectively, of the region's students are estimated to have entered college or formal technical training within two years of high school graduation. Students identified as economically disadvantaged, African American, or Hispanic/Latinx are going to college at a rate 10 percentage points lower than the average college going rate for their class cohorts. There is also a gender gap with females going to college at a rate 10 percentage points higher than males.

⁷ This variable is a summation of the counts for students identifying as Asian, Black, or Hispanic race. The variable "additional races" was not included because it seemed to include missing data.

⁸ The earnings data was obtained from the [Equitable Value Explorer - Postsecondary Value Commission](#). A data limitation is that regional and main campuses are aggregated in earnings reports.

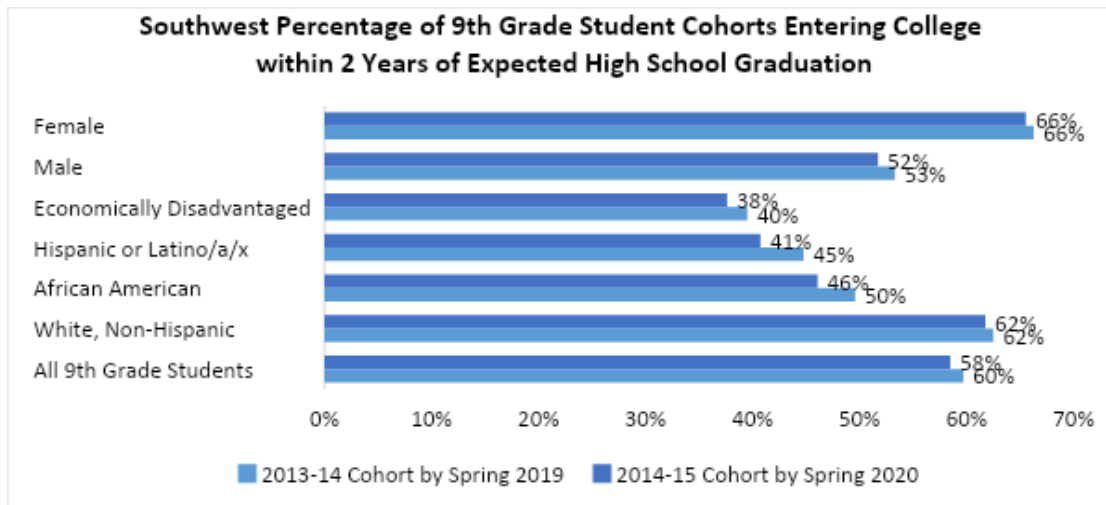


Figure 1. Southwest Percentage of 9th Grade Student Cohorts Entering College within 2 Years of High School Graduation

Data Source: Ohio Department of Education, Special Tabulation, presented by Education First to Ohio Excels - *Ohio Excels Regional Convening*, October 12, 2022. [PowerPoint slides]. Note: Sub-group results based only on counties in which student counts exceed 10.

COLLEGE CREDIT PLUS/DUAL ENROLLMENT & AP CREDIT

The Southwest Region is home to 54 public K-12 school districts. Table 2 summarizes the district AP participation and AP exam scores and dual credit participation rates. In most districts, less than 25% of students are earning college credit while in high school. The percentage of students who score 3 or above on the AP exam is less than 25% in 39 districts. There were ten K-12 school districts in the Southwest Region that had 50% or more of their graduating cohorts scoring a 3 or higher on an AP exam or receiving at least 3 dual enrollment credits during the 2020-2021 or 2021-2022 academic years. One district, Georgetown Exempted Village, is a rural district with high poverty rates by Ohio Department of Education Typology⁹: Wayne Local is a small-town district with low poverty rates. The remaining districts are suburban with very low poverty rates: Forest Hills, Indian Hill Exempted Village, Madeira City, Mariemont City, Mason City, Springboro Community City, Sycamore Community City, and Wyoming City.

Table 2. Summary of Southwest Ohio K-12 School District AP Participation, AP Scoring Rates, and Dual Credit Earning Rates

| Number of K-12 districts in Southwest Region with... | Taking an AP course (21-22) | Scoring a 3 or higher on an AP exam (21-22) | Earning 3 or more dual credits (20-21) | Earning 12 or more dual credits (21-22) |
|------------------------------------------------------|-----------------------------|---------------------------------------------|----------------------------------------|-----------------------------------------|
| 75% or more of students... | 3 | 1 | 0 | 0 |
| 50-74% of students... | 5 | 4 | 5 | 0 |
| 25-49% of students... | 18 | 10 | 18 | 5 |
| Less than 25% of students... | 28 | 39 | 31 | 49 |

Data Source: District PFS and College, Career, and Work Readiness Data from State Report Cards

⁹ <https://education.ohio.gov/Topics/Data/Frequently-Requested-Data/Typology-of-Ohio-School-Districts>

Regional Access and Success Strategies

College and career access and success programming is decentralized in the region. Scholarship resources are available through various programs and foundations, with the Cincinnati Scholarship Foundation being the most prominent. Cradle to Career Cincinnati operates as a collective impact organization for Greater Cincinnati and communicated efforts around a college consortium in 2020 but no specific activities of the consortium are public. Cincinnati Youth Collaborative offers college guidance support as well as Brown County Education Service Center. Both of these organizations participated in the Ohio Department of Higher Education's Three to Get Ready and Four to Go access and enrollment program.

Several strategic workforce development coalitions are operating in the region. These collaborative efforts place greatest emphasis on jobs and careers with post-secondary education as an option on pathways to employment. For example, the [GRIT Project](#) includes Brown and Clermont counties in Southwest Ohio and nine other Ohio counties. The GRIT Project provides career assessment, development and coaching for youth and adults to develop an employment plan, which may include work skills training.

Completion

Graduation rates are over 70% for Ohio Technical Centers and for four-year main campuses in the region, as shown in Table 3. Butler Tech's graduation rate for Pell recipients exceeds the average while the graduation rate for Pell recipients is seven percentage points behind the overall rate at Great Oaks, six percentage points behind the overall rate at Warren County Career Center, and ten percentage points behind the overall rate for Miami University-Oxford and University of Cincinnati- Main/Uptown. The two-year institutions, both regional campuses and community colleges, have much lower graduation rates and had gaps ranging between 1-8 percentage points between overall graduation rate and graduation rate for students on Pell, with Miami University-Hamilton only having a one percentage point difference.

Disaggregated data by race were not available for the Ohio Technical Centers. Graduation rates among Black or African American students were lower than the overall graduation rate for all public institutions of higher education. Graduation rates for Hispanic students in relation to the overall average varied among institutions; rates for Hispanic students were equal to or greater than the overall average at the University of Cincinnati regional campuses and Miami University-Middletown.

Table 3: Southwest Ohio Graduation Rates within 150 Percent of Normal Time for Public Institutions, 2021

| | Public Institutions | Overall Graduation Rate | Graduation Rate, Pell Only | Graduation Rate, Black or African American | Graduation Rate, Hispanic | Graduation Rate, White |
|----------------------------|--------------------------------------------------|-------------------------|----------------------------|--------------------------------------------|---------------------------|------------------------|
| Predominantly Certificates | Butler Technology and Career Development Schools | 90% | 100% | -- | -- | -- |
| | Great Oaks Career Campuses | 87% | 80% | -- | -- | -- |
| | US Grant Joint Vocational School | 78% | -- | -- | -- | -- |
| | Warren County Career | 89% | 83% | -- | -- | -- |
| Predominantly Associates | Cincinnati State Technical and Community College | 17% | 9% | 11% | 11% | 19% |
| | University of Cincinnati-Blue Ash | 13% | 9% | 5% | 17% | 17% |
| | University of Cincinnati-Clermont | 20% | 15% | 6% | 20% | 20% |
| Predominantly Bachelors | Miami University-Hamilton | 19% | 18% | 13% | 5% | 20% |
| | Miami University-Middletown | 19% | 15% | 5% | 29% | 18% |
| | Miami University-Oxford | 83% | 73% | 75% | 79% | 85% |
| | University of Cincinnati-Main/Uptown | 73% | 63% | 64% | 63% | 74% |

Data Source: National Center for Education Statistics Integrated Postsecondary Education Data System; US Grant Joint Vocational School was identified as "Brown & Clermont Adult Career Campuses" in the data source.

The graduation rates at regional two-year campuses and community colleges can be reviewed in the context of a three-year success rate which considers transfer and persistence rates in addition to completion rates. Institutional review of the disaggregated data by Pell eligibility and race/ethnicity will complement this analysis. See Table 4.

Table 4: Three Year Success Measure Components for Southwest Ohio Public Two-Year Institutions, Fall 2018 Entering Cohort, 2021

| Sector Institution | % Earned degree by end of third year | % Persisting at same institution in FY 2021 | % Persisting at a different institution in FY 2021 |
|--------------------------------------------------|--------------------------------------|---------------------------------------------|----------------------------------------------------|
| Cincinnati State Technical and Community College | 19% | 25% | 8% |
| Miami University-Hamilton | 12% | 47% | 7% |
| Miami University-Middletown | 21% | 43% | 5% |
| University of Cincinnati-Blue Ash College | 16% | 33% | 7% |
| University of Cincinnati-Clermont College | 25% | 27% | 4% |

Data Source: Ohio Department of Higher Education

Post-School Outcomes

Southwest Ohio institutions reporting the highest overall median earnings include Xavier University (\$65,612), Good Samaritan College of Nursing and Health Science (\$65,074), and Union Institute & University (\$62,698). Overall earnings for proprietary institutions ranged from \$17,673 (Moler Hollywood Beauty Academy) to \$61,562 (Galen College of Nursing) and from \$25,538 (Chatfield College) to \$65,612 (Xavier University) for regional private institutions. Overall median earnings for public institutions ranged from \$31,893 (Brown & Clermont Adult Career Campuses) to \$60,039 (Miami University – all campuses) as shown in Table 1 on page 2. A limitation to the earnings for public institutions is that regional and main campuses are reported aggregately.

Public institutions in the Southwest region reported overall median earnings over \$30,000. This was also true for six of the proprietary institutions and seven of the private institutions that reported earnings data. All the public two-year and four-year institutions have positive earnings compared to Threshold 0, which was defined by the Equitable Value Explorer Tool^{iv} as the minimum economic return to see earnings over time that would be above what an individual who only completed high school received. Threshold 0 was not available for the Ohio Technical Centers.

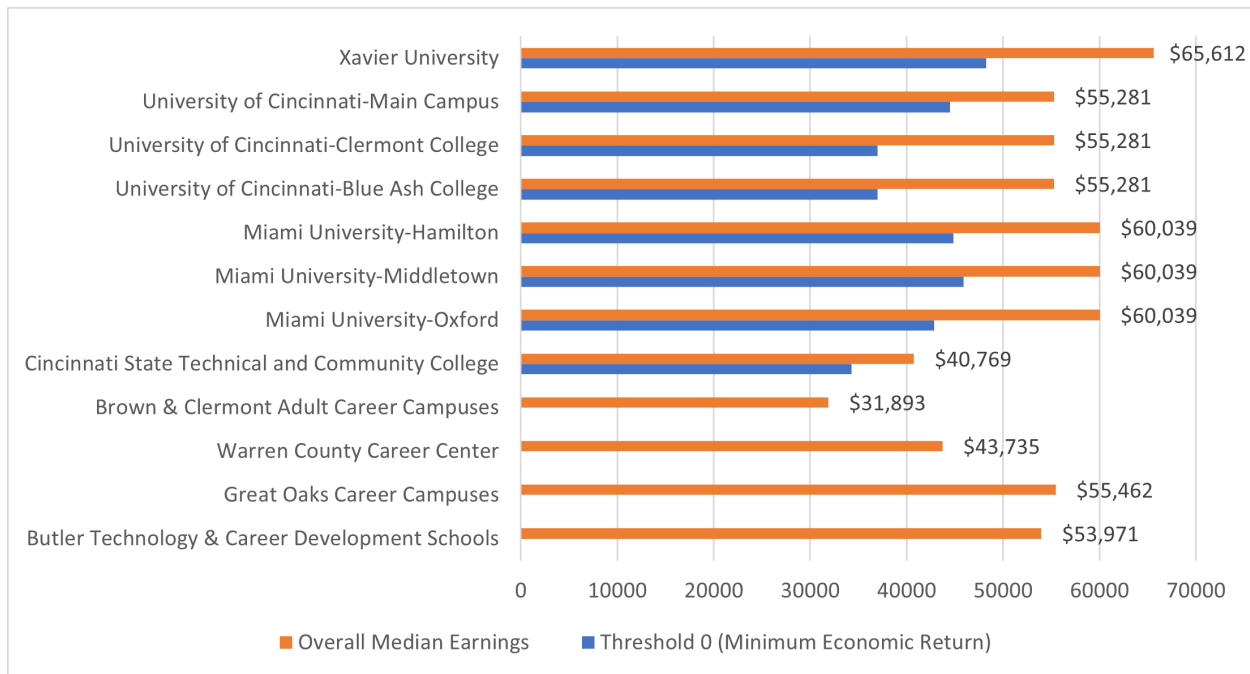


Figure 2. Overall Median Earnings and Earnings Relative to Threshold 0 for Southwest Ohio Public Institutions

Source: Equitable Value Explorer. Note that regional and main campuses earnings are reported aggregately.

Industry

The State of Ohio Governor’s Office of Workforce Transformation in partnership with the InnovateOhio Platform’s Data Analytics team has created a Top Jobs list of occupations paying sustainable wages and with a promising future based on the projected number of openings and growth.¹⁰ The “Top Jobs” for the Southwest region and their median salaries are shown in Table 4 by expected growth rate. They are displayed by typical education required. At the top of each column, the median earnings in Ohio for the education credential level (known as threshold 1 in the Equitable Value Explorer Tool¹) is listed. The top jobs for which wage data are available, with the exception of pre-school teacher jobs, meet or exceed the median earnings threshold for the credential level. Please note that wage data were not reported for nursing assistants; medical records & health information technicians; emergency medical technicians & paramedics; web developers; and software developers.

Jobs Ohio identifies several core industries for growth with four areas noted as consistent across regions: Advanced Manufacturing, Technology, Business and Professional Services, and BioHealth. The Top Jobs are color coded if they match one of the four core industries. All jobs in the core industries meet or exceed the threshold for median earnings for the credential level.

Overall, the Ohio Department of Job and Family Services’ Bureau of Labor Market Information projects jobs to grow by 2% in Southwest Ohio from 2018 – 2028, making the Southwest region the second fastest growing region in Ohio.¹¹

¹⁰ [Ohio’s Top Jobs List | Ohio’s Top Jobs](#)

¹¹ [Southwest 2028.xlsx \(ohiolmi.com\)](#)

Table 5. Top Jobs in Southwest Ohio and Median Salary by Typical Education Required ranked by Projected Annual Growth within the Region

| Southwest Region Top Jobs | | | | | |
|-------------------------------------------------------------------|-----------------|--------------------------------------------|-----------------|------------------------------------------------------------------|-----------------|
| Postsecondary Non-Degree Award Threshold 1 = \$31,070 | Salary | Associate Degree Threshold 1 = \$34,911 | Salary | Bachelor's Degree Threshold 1 = \$46,380 | Salary |
| Medical Assistants | \$36K | Respiratory Therapists | \$61K | Registered Nurses | \$70K |
| Nursing Assistants | (Not available) | Preschool Teachers | \$29K | Software Developers, Applications | (Not Available) |
| Licensed Practical/Vocational Nurses | \$49K | Occupational Therapy Assistants | \$62K | Market Research Analysts & Marketing Specialists | \$63K |
| Medical Records & Health Information Techs | (Not Available) | Physical Therapist Assistants | \$63K | Financial Managers | \$131K |
| Heating, Air Conditioning, & Refrigeration Mechanics & Installers | \$54K | Radiologic Technologists & Techs | \$60K | General & Operations Managers | \$114K |
| Massage Therapists | \$40K | Diagnostic Medical Sonographers | \$67K | Medical & Health Services Managers | \$88K |
| Health Techs | \$43K | Web Developers | (Not available) | Business Operations Specialists, All Others | \$75K |
| Phlebotomists | \$37K | Veterinary Techs | \$40K | Industrial Engineers | \$89K |
| Heavy & Tractor-Trailer Truck Drivers | (\$48K) | Computer Network Support Specialists | \$61K | Loan Officers | \$61K |
| Psychiatric Techs | \$33K | Dental Hygienists | \$75K | Substance Abuse, Behavioral Disorder, & Mental Health Counselors | \$48K |
| Surgical Techs | \$50K | Environmental Science & Protection Techs | \$47K | Computer Systems Analysts | \$93K |
| Emergency Medical Techs & Paramedics | (Not available) | Chemical Techs | \$51K | Management Analysts | \$81K |
| Ophthalmic Medical Techs | \$41K | Paralegals & Legal Assistants | \$55K | Securities, Commodities, & Financial Services Sales Agents | \$59K |
| Dental Assistants | \$45K | Mechanical Engineering Techs | \$55K | Operations Research Analysts | \$92K |
| Skincare Specialists | \$33K | Electrical & Electronics Engineering Techs | \$67K | Computer & Information Systems Managers | \$139K |

■ BioHealth
 ■ Advanced Manufacturing
 ■ Technology
 ■ Business & Professional Services
 ■ Multiple Core Industries
 ■ Not in a core industry

Table 6 shows the number of completers by institution for the four core industries. The field of study was correlated to industry by CIP code as shown in the Appendix. This gives a general sense of education award production for the core industries. Baccalaureate level completions far surpass awards at associate and certificate levels.

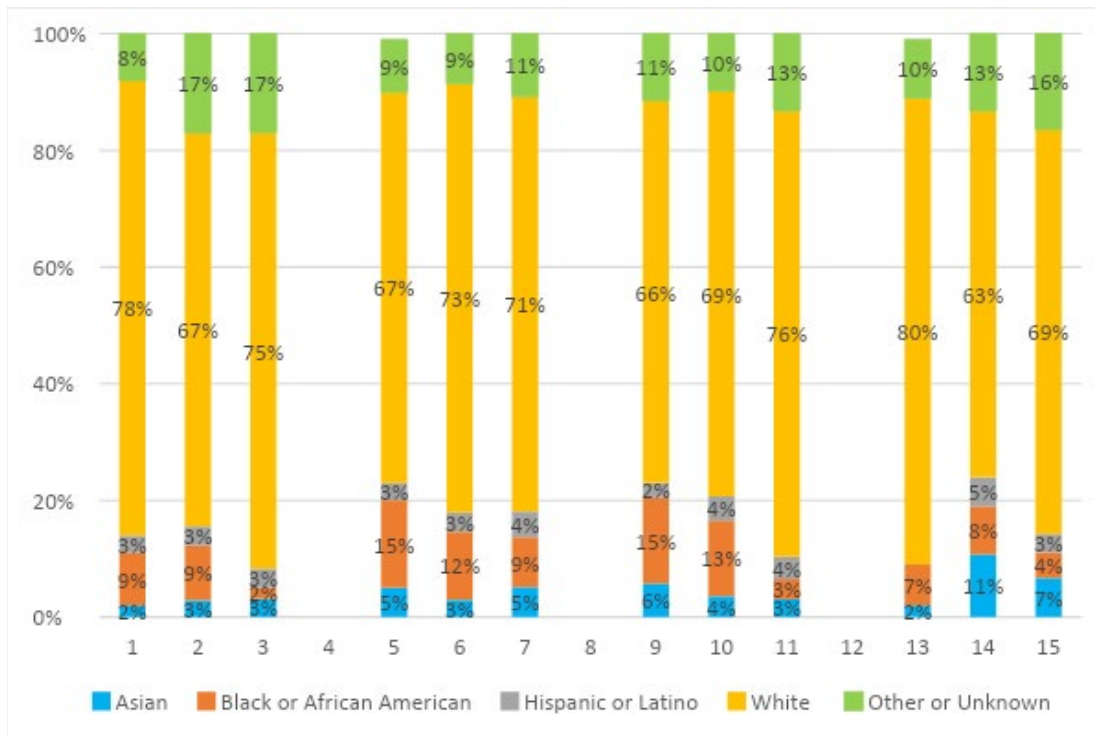
Table 6 Number of Completions by Industry Category, 2021

| Public Institutions | BioHealth | | | Advanced Manufacturing | | | Technology | | | Business and Professional Services | | |
|--------------------------------------------------|------------|------------|-------------|------------------------|------------|-------------|------------|------------|------------|------------------------------------|------------|-------------|
| | Cert | Assoc | Bac | Cert | Assoc | Bac | Cert | Assoc | Bac | Cert | Assoc | Bac |
| Butler Technology and Career Development Schools | 348 | 0 | 0 | 85 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Great Oaks Career Campuses | 27 | 0 | 0 | 81 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US Grant Joint Vocational School | 52 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Warren County Career | 108 | 0 | 0 | 32 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| Cincinnati State Technical and Community College | 170 | 173 | 0 | 94 | 174 | 21 | 2 | 47 | 0 | 46 | 157 | 0 |
| University of Cincinnati-Blue Ash | 17 | 227 | 23 | 0 | 0 | 0 | 1 | 39 | 0 | 4 | 173 | 0 |
| University of Cincinnati-Clermont | 52 | 113 | 0 | 0 | 17 | 0 | 1 | 19 | 0 | 2 | 120 | 0 |
| Miami University-Hamilton | 0 | 0 | 82 | 0 | 12 | 57 | 0 | 13 | 27 | 0 | 20 | 80 |
| Miami University-Middletown | 0 | 0 | 35 | 0 | 9 | 13 | 0 | 3 | 8 | 0 | 8 | 85 |
| Miami University-Oxford | 0 | 0 | 697 | 10 | 0 | 257 | 0 | 0 | 131 | 15 | 0 | 1045 |
| University of Cincinnati-Main | 133 | 0 | 1584 | 0 | 0 | 897 | 23 | 0 | 297 | 55 | 0 | 1213 |
| TOTAL | 907 | 513 | 2421 | 311 | 212 | 1245 | 41 | 121 | 463 | 122 | 478 | 2423 |

Data Source: National Center for Education Statistics Integrated Postsecondary Education Data System; Data from US Grant Joint Vocational School was not available.

Figure 3 shows the proportion of degrees conferred by race for the REDI Cincinnati core industries in 2021, which were defined by matching CIP codes (See Appendix). Black or African American students are a lesser proportion of baccalaureate awards in the core industries compared to their representation in the population and their representation at the certificate and associate degree award levels. No Hispanic or Latinx students were awarded certificates in technology fields, but Hispanic or Latinx students were represented in degree awards from public institutions.

Figure 3 Proportion of Degrees Conferred by Race for Priority Core Industries and Award Levels, Southwest Ohio Public Institutions 2021



Data Source: National Center for Education Statistics Integrated Postsecondary Education Data System; Data from US Grant Joint Vocational School was not available; Note: Certificates only includes certificates below the baccalaureate level

Appendix

Scale Strategic Solutions connected industry priorities and designations from JobsOhio with fields of study based on CIP code families that best fit the industry. Please note that some occupations may have a variety of fields of study from which they may hire.

Table 7: Crosswalk of regional core industries, job categories, and CIP codes of field of study

| REDI Cincinnati Core Industries | Job Categories from Ohio's Top Jobs | CIP Codes |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| BioHealth | Healthcare Practitioners and Technical; Healthcare Support; select Life and Physical Science, and Social Sciences; select Management | 26- Biological and Biomedical Sciences 42- Psychology 51- Health Professions |
| Advanced Manufacturing | Installation, Maintenance, and Repair; Production; select Management | 14- Engineering 15- Engineering Tech 47- Mechanic, Repair, and installations 48- Precision Production |
| Technology | Computer and Mathematical; select Management | 11- Computer and Information Sciences |
| Business and Professional Services | Business and Financial Operations; select Management | 52- Business, Management, and Marketing |