

BAC YouScience Quarterly Report

Montgomery & Warren County Student Snapshot



Introduction

This report offers an update of the YouScience data from our Business Advisory Council’s partner school districts, providing valuable insights into student aptitudes and career interests. Our goal is to present a clear regional picture of the emerging workforce pipeline across key in-demand sectors.

YouScience uses proprietary artificial intelligence to uncover student aptitudes, then connect these aptitudes to careers and educational pathways designed to help students discover their natural talents and connect them to personalized career and educational opportunities.

This overview shows the number of assessed students who show a natural aptitude and interest in our targeted industry clusters. This data highlights our region’s students’ awareness and exposure gaps, revealing areas of opportunity for improvement.

The BAC aims to inspire collaboration among industry, higher education, nonprofits, and K-12 schools to help close these gaps and better prepare students for future workforce needs in our region.

YouScience Results by Industry Sector

25-26 Students Assessed YTD (Grades 6-12)

 # of Individual Students Assessed
1,660

Advanced Manufacturing

163
207 1.3x

Both:
23

Agriculture

185
259 1.4x

Both:
38

Arts, Entertainment, & Design

259
711 2.7x

Both:
128

Construction

306
332 1.1x

Both:
71

Digital Technology

484 4.4x
111 77% exposure gap

Both:
46

Education

257
664 2.6x

Both:
130

Energy & Natural Resources

203
267 1.3x

Both:
51

Financial Services

746 6.5x
115 85% exposure gap

Both:
74

Healthcare & Human Services

487
551 1.1x

Both:
168

Hospitality, Events, & Tourism

153 1.2x
126 18% exposure gap

Both:
13

Management & Entrepreneurship

368
698 1.9x

Both:
179

Marketing & Sales

61
388 6.4x

Both:
15

Public Service & Safety

530 1.7x
317 40% exposure gap

Both:
117

Supply Chain & Transportation

778 3.3x
234 70% exposure gap

Both:
150

 Aptitude  Interest

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YouScience Results by Industry Sector

All Active Assessed Students Grades 6-12



of Individual
Students Assessed
14,574

Advanced Manufacturing

1,934 **1.0x**
1,847 4% exposure gap

Both:
443

Agriculture

1,934 **1.2x**
2,299

Both:
418

Arts, Entertainment, & Design

2,716 **2.3x**
6,237

Both:
1,457

Construction

2,957 **1.0x**
2,917 1% exposure gap

Both:
803

Digital Technology

4,192 **4.6x**
904 78% exposure gap

Both:
348

Education

2,219 **2.5x**
5,627

Both:
1,176

Energy & Natural Resources

2,374 **1.0x**
2,317 2% exposure gap

Both:
566

Financial Services

5,344 **4.8x**
1,107 79% exposure gap

Both:
660

Healthcare & Human Services

4,187 **1.2x**
4,831

Both:
1,613

Hospitality, Events, & Tourism

1,528 **1.3x**
1,199 22% exposure gap

Both:
216

Management & Entrepreneurship

3,602 **1.7x**
6,123

Both:
1,760

Marketing & Sales

790 **4.3x**
3,434

Both:
297

Public Service & Safety

4,220 **1.5x**
2,769 34% exposure gap

Both:
1,018

Supply Chain & Transportation

5,725 **2.7x**
2,111 63% exposure gap

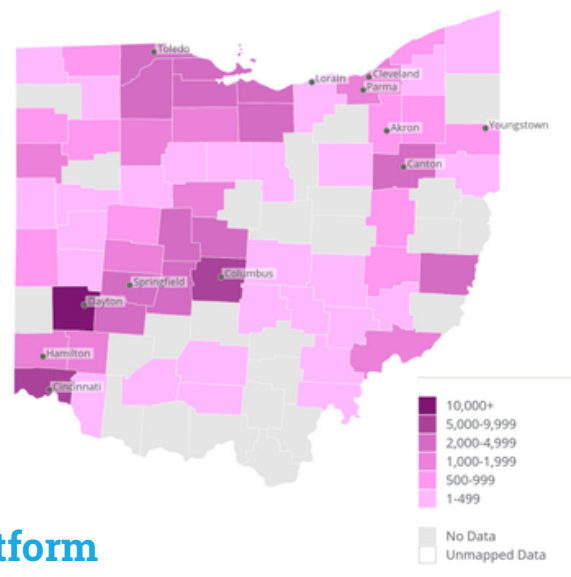
Both:
1,200

■ Aptitude ■ Interest

Data pulled September 22, 2025

The Power of YouScience

YouScience matches students' aptitudes with 500+ careers, including their top 15-20 best fit careers. Career matches also include salary ranges, projected job openings, education requirements, day-in-the-life insight, and more. Results include language to assist with resumes, application essays, and interviews. This data helps make the case for private sector partners to get involved in K-12 career connections efforts.



1 Million students using the platform

139,000+ surveyed in Ohio across 164 districts

12,500+ surveyed* in Montgomery County *(BAC & Non-BAC)

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YouScience Results by Industry Sector

All Active Assessed Students Grades 6-8



of Individual
Students Assessed
1,890

Advanced Manufacturing

264
273 **1.0x**

Both:
99

Agriculture

268
279 **1.0x**

Both:
104

Arts, Entertainment, & Design

427
987 **2.3x**

Both:
354

Construction

327
409 **1.3x**

Both:
146

Digital Technology

444 **3.4x**
129 71% exposure gap

Both:
58

Education

399
738 **1.8x**

Both:
264

Energy & Natural Resources

320 **1.1x**
303 5% exposure gap

Both:
122

Financial Services

681 **7.6x**
90 87% exposure gap

Both:
60

Healthcare & Human Services

555 **1.0x**
554 0% exposure gap

Both:
242

Hospitality, Events, & Tourism

232 **1.7x**
137 41% exposure gap

Both:
56

Management & Entrepreneurship

578
765 **1.3x**

Both:
358

Marketing & Sales

193
528 **2.7x**

Both:
161

Public Service & Safety

468 **1.8x**
265 43% exposure gap

Both:
126

Supply Chain & Transportation

514 **2.4x**
213 59% exposure gap

Both:
103

■ Aptitude ■ Interest

Data pulled September 22, 2025

Why Aptitudes Matter

Most career assessment tools rely solely on interest and personality surveys. YouScience combines psychometrically valid brain game-like exercises that uncover students' aptitudes along with an interest inventory.

Interest-only assessments reinforce biases and fail to give students an accurate picture of what they can do or will find satisfying.

An aptitude-based assessment coupled with career matching, lets students self-discover their talents, gain self awareness, and find career opportunities that align with those talents. This data strips away the biases and exposes students to careers they did not know about, did not think they could do, or perhaps, had never considered. It shows them careers they are wired to do well and will find satisfying because mastering the skills needed will be natural rather than stressful.

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YouScience Results by Industry Sector & Gender

All Active Assessed Students Grades 6-12



of Individual
Students Assessed
13,356

Male

Advanced Manufacturing



Agriculture



Arts, Entertainment, & Design



Construction



Digital Technology



Education



Energy & Natural Resources



Financial Services



Healthcare & Human Services



Hospitality, Events, & Tourism



Management & Entrepreneurship



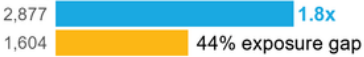
Marketing & Sales



Public Service & Safety



Supply Chain & Transportation



Female

Advanced Manufacturing



Agriculture



Arts, Entertainment, & Design



Construction



Digital Technology



Education



Energy & Natural Resources



Financial Services



Healthcare & Human Services



Hospitality, Events, & Tourism



Management & Entrepreneurship



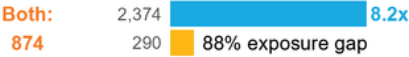
Marketing & Sales



Public Service & Safety



Supply Chain & Transportation



Aptitude Interest

Career Connections Months of Action - Skilled Trades Careers Spotlight

Skilled trades are essential to the Dayton region's economy, supporting industries like manufacturing, aviation, and defense. As employers face growing workforce shortages, the demand for welders, machinists, electricians, and other tradespeople continues to rise—offering strong wages and clear career pathways.

Beyond meeting labor needs, skilled trades are central to building career-connected learning systems. Regional initiatives help students explore hands-on pathways aligned with real job opportunities. By investing in skilled trades education, Dayton is equipping the next generation to thrive while strengthening the local talent pipeline.

YouScience Skilled Trades Career Results

All Active Assessed Students Grades 6-12



of Individual
Students Assessed
14,990

Architectural and Civil Drafters (20 Annual Openings)

678 **1.3x** **Both: 297**
521 23% exposure gap

Automotive Body and Related Repairers (31 Annual Openings)

169 **2.3x** **Both: 149**
386

Bus and Truck Mechanics and Diesel Engine Specialists (53 Annual Openings)

53 **1.6x** **Both: 41**
85

Carpenters (113 Annual Openings)

58 **7.8x** **Both: 46**
450

Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers (133 Annual Openings)

199 **2.7x** **Both: 66**
74 63% exposure gap

Electricians (145 Annual Openings)

57 **1.1x** **Both: 30**
54 5% exposure gap

Heating, Air Conditioning, and Refrigeration Mechanics and Installers (108 Annual Openings)

42 **2.5x** **Both: 13**
17 60% exposure gap

Industrial Engineering Technologists and Technicians (36 Annual Openings)

701 **4.5x** **Both: 142**
157 78% exposure gap

Inspectors, Testers, Sorters, Samplers, and Weighers (207 Annual Openings)

213 **4.3x** **Both: 47**
50 77% exposure gap

Mechanical Engineering Technologists and Technicians (20 Annual Openings)

515 **2.4x** **Both: 176**
213 59% exposure gap

Operating Engineers and Other Construction Equipment Operators (54 Annual Openings)

78 **1.6x** **Both: 38**
48 38% exposure gap

Plumbers, Pipefitters, and Steamfitters (93 Annual Openings)

139 **1.3x** **Both: 79**
174

Roofers (26 Annual Openings)

162 **2.9x** **Both: 130**
477

Telecommunications Line Installers and Repairers (34 Annual Openings)

841 **2.1x** **Both: 361**
396 53% exposure gap

Water and Wastewater Treatment Plant and System Operators (24 Annual Openings)

803 **2.8x** **Both: 276**
292 64% exposure gap

Welders, Cutters, Solderers, and Brazers (94 Annual Openings)

80 **2.5x** **Both: 48**
201

 Aptitude

 Interest

Data pulled September 22, 2025

Annual Openings are from ODJFS's 2022-2032 Occupational Employment Projections for Dayton MSA

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How We're Leveraging the Data

Our Business Advisory Council collaborates with K-12 schools, higher education, and industry partners to effectively activate students for career connection opportunities. Here are three key ways we're leveraging YouScience student data:

Career Exploration Events: Hosting events like **Kettering City Schools' YouScience Night**, where families can review students' assessment results and participate in hands-on activities with local employers. This approach helps students and families directly connect with career tech pathways and career opportunities suited to their aptitudes.

Targeted Recruitment for Summer and Afterschool Programs: Using YouScience data to micro-target students with specific aptitudes for programs like **Sinclair College's Automotive Summer Camp**. By sending personalized emails through districts, our BAC ensures that students who are well-suited for these opportunities are informed and encouraged to participate.

Program Alignment with Student Strengths: Collaborating with departments like **Sinclair's Built Environment Programs** to engage students with relevant aptitudes. By inviting families to events like the October Family Open House, students can explore educational pathways aligned with their unique strengths and potential career interests.

Action Steps

Help our Business Advisory Council close the exposure gap and reveal opportunities. As adults, we take for granted our understanding of the world, careers, and opportunities. Students in high school are learning what is possible – or haven't yet learned. One of the fundamental premises of education is to help all students expand their view of what is possible.

- Join our region's Business Advisory Council and support our local strategies connecting students to careers.
- Explore providing work-based learning opportunities to local students through partners like [SOCHE](#) and [YouthWorks](#).
- Help strengthen our local industry group K-12 efforts by partnering with [GDAHA](#), [DRMA](#), [Technology First](#), [DACC](#), [DDC](#), and more!

Timeline For Upcoming Reports

Each quarter, we'll release reports with updated student totals and insights on trends from local YouScience assessments, spotlighting a different industry sector each time. Look for our next report in November 2025.

Questions? Contact thomas.jenkins@mcesc.org.