

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

24-25 Students Assessed YTD (Grades 6-12)



of Individual
Students Assessed
5,136

Agriculture, Food, & Natural Resources



Both:
212

Architecture & Construction



Both:
254

Arts, Audio/Video Technology, & Communications



Both:
380

Business Management & Administration



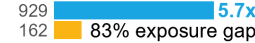
Both:
341

Education & Training



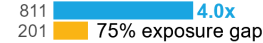
Both:
318

Finance



Both:
53

Government & Public Administration



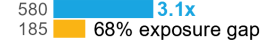
Both:
39

Health Science



Both:
449

Hospitality & Tourism



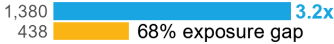
Both:
44

Human Services



Both:
326

Information Technology



Both:
145

Law, Public Safety, Corrections, & Security



Both:
211

Manufacturing



Both:
206

Marketing



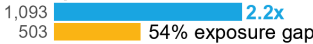
Both:
144

Science, Technology, Engineering, & Mathematics



Both:
167

Transportation, Distribution, & Logistics



Both:
200

Aptitude Interest

BAC YouScience Quarterly Report

Montgomery & Warren County Student Snapshot

YouScience Results by Industry Sector

All Active Assessed Students Grades 6-12



of Individual
Students Assessed
10,349

Agriculture, Food, & Natural Resources

1,789 **1.1x**
1,688 6% exposure gap

Both:
362

Architecture & Construction

1,717 **1.2x**
2,080

Both:
474

Arts, Audio/Video Technology, & Communications

1,648 **2.5x**
4,098

Both:
759

Business Management & Administration

2,592 **1.0x**
2,510 3% exposure gap

Both:
760

Education & Training

1,341 **3.0x**
4,010

Both:
666

Finance

1,862 **5.2x**
360 81% exposure gap

Both:
124

Government & Public Administration

1,653 **3.9x**
420 75% exposure gap

Both:
92

Health Science

3,764 **1.6x**
2,341 38% exposure gap

Both:
869

Hospitality & Tourism

1,230 **3.0x**
412 67% exposure gap

Both:
97

Human Services

1,759 **2.2x**
3,812

Both:
773

Information Technology

2,711 **3.1x**
880 68% exposure gap

Both:
281

Law, Public Safety, Corrections, & Security

2,222 **1.3x**
1,726 22% exposure gap

Both:
456

Manufacturing

2,243 **1.9x**
1,171 48% exposure gap

Both:
401

Marketing

1,159 **2.1x**
2,402

Both:
281

Science, Technology, Engineering, & Mathematics

890 **2.3x**
2,081

Both:
340

Transportation, Distribution, & Logistics

2,466 **2.3x**
1,052 57% exposure gap

Both:
451

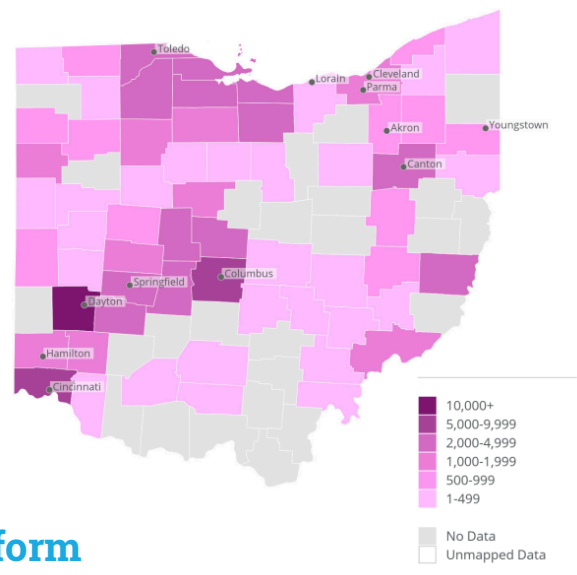
Aptitude

Interest

Data pulled February 13, 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

100,000+ surveyed in Ohio

10,000+ surveyed* in Montgomery County *(BAC & Non-BAC)

BAC YouScience Quarterly Report

Montgomery & Warren County Student Snapshot

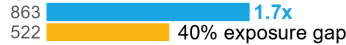
YouScience Results by Industry Sector

All Active Assessed Students Grades 6-8



of Individual
Students Assessed
3,375

Agriculture, Food, & Natural Resources



Both:
174

Architecture & Construction



Both:
195

Arts, Audio/Video Technology, & Communications



Both:
202

Business Management & Administration



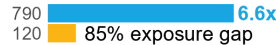
Both:
162

Education & Training



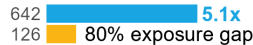
Both:
189

Finance



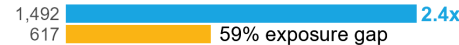
Both:
42

Government & Public Administration



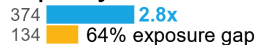
Both:
36

Health Science



Both:
286

Hospitality & Tourism



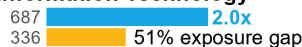
Both:
33

Human Services



Both:
175

Information Technology



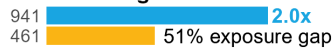
Both:
90

Law, Public Safety, Corrections, & Security



Both:
138

Manufacturing



Both:
167

Marketing



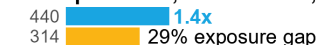
Both:
113

Science, Technology, Engineering, & Mathematics



Both:
107

Transportation, Distribution, & Logistics



Both:
75

 Aptitude

 Interest

Data pulled February 13, 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.

BAC YouScience Quarterly Report

Montgomery & Warren County Student Snapshot

YouScience Results by Industry Sector & Gender

All Active Assessed Students Grades 6-12



of Individual
Students Assessed
9,928

Male

Agriculture, Food, & Natural Resources



Both:
279

Architecture & Construction



Both:
360

Arts, Audio/Video Technology, & Communications



Both:
208

Business Management & Administration



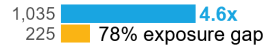
Both:
396

Education & Training



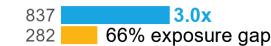
Both:
120

Finance



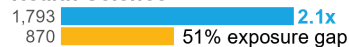
Both:
81

Government & Public Administration



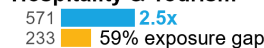
Both:
64

Health Science



Both:
330

Hospitality & Tourism



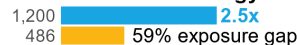
Both:
60

Human Services



Both:
230

Information Technology



Both:
146

Law, Public Safety, Corrections, & Security



Both:
292

Manufacturing



Both:
306

Marketing



Both:
110

Science, Technology, Engineering, & Mathematics



Both:
191

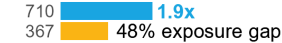
Transportation, Distribution, & Logistics



Both:
356

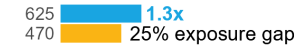
Female

Agriculture, Food, & Natural Resources



Both:
63

Architecture & Construction



Both:
87

Arts, Audio/Video Technology, & Communications



Both:
524

Business Management & Administration



Both:
342

Education & Training



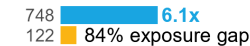
Both:
512

Finance



Both:
36

Government & Public Administration



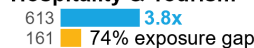
Both:
24

Health Science



Both:
510

Hospitality & Tourism



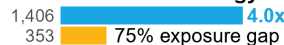
Both:
32

Human Services



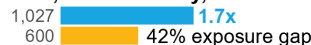
Both:
508

Information Technology



Both:
120

Law, Public Safety, Corrections, & Security



Both:
145

Manufacturing



Both:
68

Marketing



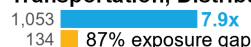
Both:
159

Science, Technology, Engineering, & Mathematics



Both:
133

Transportation, Distribution, & Logistics



Both:
74

 Aptitude

 Interest

Data pulled February 13, 2025

Career Connections Months of Action - Computer Science and IT Careers Spotlight

Our Business Advisory Council leverages a regional approach to support industry-specific outreach through our Career Connections Months of Action. Nationally, December marks Computer Science Education Week. All month, we promote experiences to teach students about careers in computer science. Our region has a rich history of working with partners to raise awareness about computer science careers.

The following chart highlights selected CS/IT occupations, chosen in collaboration with partners from Technology First, CareSource, Digital Transformation Center, and SOCHE. While there is an abundance of data on this sector, this chart offers a unique look at our region's emerging talent pipeline.

YouScience Computers & Technology Career Results

All Active Assessed Students Grades 6-12



of Individual
Students Assessed
10,349

Business Intelligence Analysts

(Annual Openings Not Listed)



Both:
32

Computer and Information Systems Managers

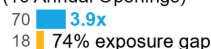
(72 Annual Openings)



Both:
52

Computer Hardware Engineers

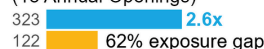
(16 Annual Openings)



Both:
15

Computer Network Architects

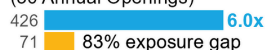
(18 Annual Openings)



Both:
102

Computer Network Support Specialists

(30 Annual Openings)



Both:
55

Computer Programmers

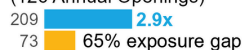
(16 Annual Openings)



Both:
70

Computer Systems Analysts

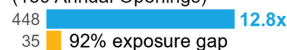
(126 Annual Openings)



Both:
64

Computer User Support Specialists

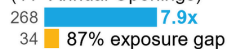
(159 Annual Openings)



Both:
26

Database Administrators

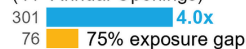
(41* Annual Openings)



Both:
21

Database Architects

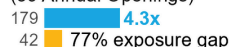
(41* Annual Openings)



Both:
61

Information Security Analysts

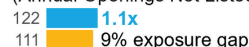
(39 Annual Openings)



Both:
32

Information Technology Project Managers

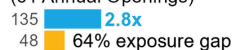
(Annual Openings Not Listed)



Both:
73

Network and Computer Systems Administrators

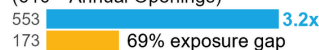
(61 Annual Openings)



Both:
36

Software Quality Assurance Analysts and Testers

(610** Annual Openings)



Both:
152

Video Game Designers

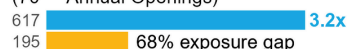
(Annual Openings Not Listed)




Both:
199

Web Developers

(70*** Annual Openings)



Both:
154

 Aptitude  Interest

Data pulled February 13, 2025

Annual Openings are from ODJFS's Dayton MSA Employment Projections Report (2020-2030)

*Combined Projection for Database Administrators and Architects

**Combined Projection for Software Developers and Software Quality Assurance Analysts and Testers

***Combined Projection for Web Developers and Digital Interface Designers

BAC YouScience Quarterly Report

Montgomery & Warren County Student Snapshot



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 April 2025.

Questions? Contact bryan.stewart@mcesc.org.