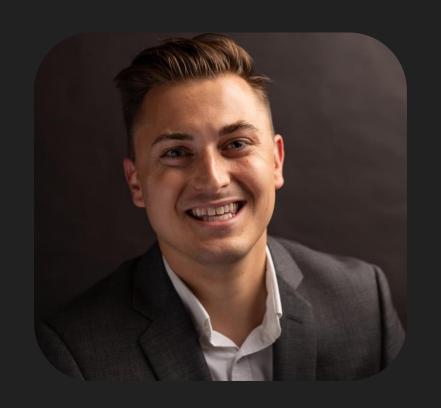


Strengthening the Pipeline for Careers in Tech Bryan Stewart



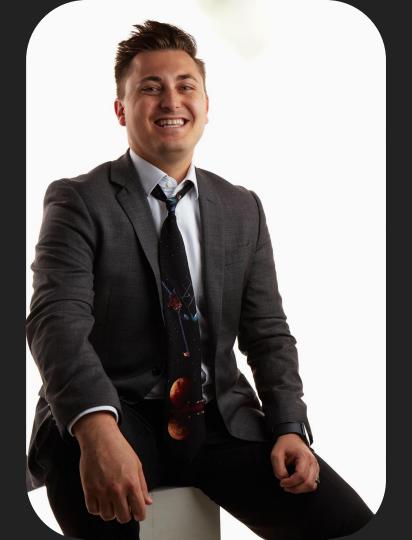




Bryan Stewart Workforce Director

Montgomery County ESC & Learn to Earn Dayton bryan.stewart@mcesc.org

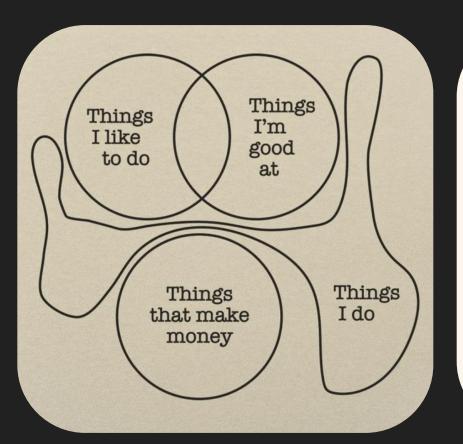




A little bit about me:

- Degree in Diplomacy & Global Politics from Miami
- Master of Public Administration from UD
- Die hard Cincinnati Bengals fan
- Science fiction lover
- I have an ecommerce retail business and love exploring our state's entrepreneur scene.









The Big Picture Challenge



Ohio will not be successful without a strong workforce.

Before the pandemic and even in 2023, our economic development partners highlight workforce is the number one challenge facing our local economy. We need to build a system that allows students to achieve their full potential and be career ready.



Spanning nearly 1,000 acres in Licking County, just outside of Columbus, the "mega-site" can accommodate a total of eight chip factories as well as supporting operations and ecosystem partners.



OHIO'S BIG WIN: Honda's new \$4.4B electric battery plant to bring 2,500+ jobs about 50 minutes from Dayton



"Our operations here will play a key role as a new EV hub," Bob Nelson, executive vice president of American Honda Motor Co. Inc., said Tuesday at the Ohio Statehouse.

"It's another win for America and another win for Ohio, with Honda and LG committing more than \$5 billion toward electric vehicle battery manufacturing and factory retooling across the state," President Biden said in a statement.

Montgomery County ESC Business Advisory Council

Ensuring our workforce can compete by enhancing partnerships between schools, higher education and employers

- Ensuring student success and career-readiness
- Helping existing and new businesses thrive
- Keeping talent in our region
- Making Montgomery County & Warren County great places to live







Is anyone here today active in their region's Business Advisory Council?



Ohio's 2023 Three-Star Business Advisory Councils

- » Auglaize-Mercer Educational Service Center
- » Building Bridges to Careers
- » Cincinnati Public Schools
- » East Central Ohio Educational Service Center
- » Educational Service Center of Eastern Ohio
- » Educational Service Center of Northeast Ohio
- » Goshen Local Schools

- » Marion Area Workforce Acceleration Collaborative
- » Muskingum Valley Educational Service Center
- » New Lexington City Schools
- » Perry Local Schools
- » Piqua City Schools
- » Southern Ohio Educational Service Center
- » Tri-County Educational Service Center



Ohio's 2023 Four-Star Business Advisory Councils

- » Columbiana County Educational Service Center
- » Educational Service Center of Central Ohio
- » Montgomery County Educational Service Center*
- » Noble Local Schools*
- » North Point Educational Service Center



WANT SOME ENLIGHTENING HOMEWORK? WRITE THESE DOCUMENTARIES DOWN!

Redefining Dayton's story. The Midwest's story.

Exploring how work is changing culturally due to globalization.

Theorizing what work will look like when our students are in leadership roles.



Our overarching foundational challenge: Better connect schools and partners so students can determine their next steps after high school.



Montgomery County ESC Business Advisory Council

Ensuring our workforce can compete by enhancing partnerships between schools, higher education and employers

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- Helping existing and new businesses thrive
- Keeping talent in our region
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K 1 2 3 4 5 6 7 8 9 10 11 12

CAREER AWARENESS

Elementary Grades (K-5)

CAREER EXPLORATION

Middle Grades (6-8)

CAREER PLANNING

High School (9-12)



Ensuring Students Success From Cradle to Career

Ready to Learn. Explore. Earn.

Age 5	3rd grade	8th grade	9th grade	12th grade	Post	Job θ
					High School	Career
Ready to learn when entering Kindergarten	Proficient in reading	Proficient in math	Ready to learn throughout high school	Ready to graduate from high school	Ready to learn in college or earn a credential*	Ready to earn with a college degree or a credential*
	× =		Power Indicators	<u> </u>	<u> </u>	<u> </u>
Increase the percentage of students who 'Demonstrate Readiness' on Ohio's Kindergarten Readiness Assessment	Increase the percentage of students scoring at or above proficient on the 3rd-grade Ohio Reading Assessment	Increase the percentage of students scoring at or above proficient on the 8th-grade Ohio Math Assessment	Increase the percentage of students earning 5 credits their freshman year, with at least 1 in math and 1 in English	Increase the percentage of students graduating from high school within 4 years	Increase the percentage of students enrolling at a post-secondary institution any time during the first 2 years after HS	Increase the percentage of students graduating with a 2- or 4-year degree within 6 years





We need 60% of working-age adults to have at least a 2-year college degree or a high quality post-secondary credential



Our BAC represents 89,000+ students



Our regions In-Demand Sectors



We scale by focusing on industry groups and supporting their member driven efforts.

















Centre of the neur

How many of you have connected with your region's industry trade organizations?







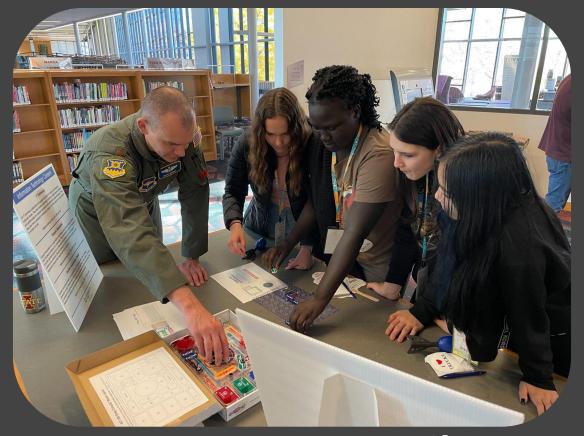












2022 Dayton Metro Library Career Adventure Days

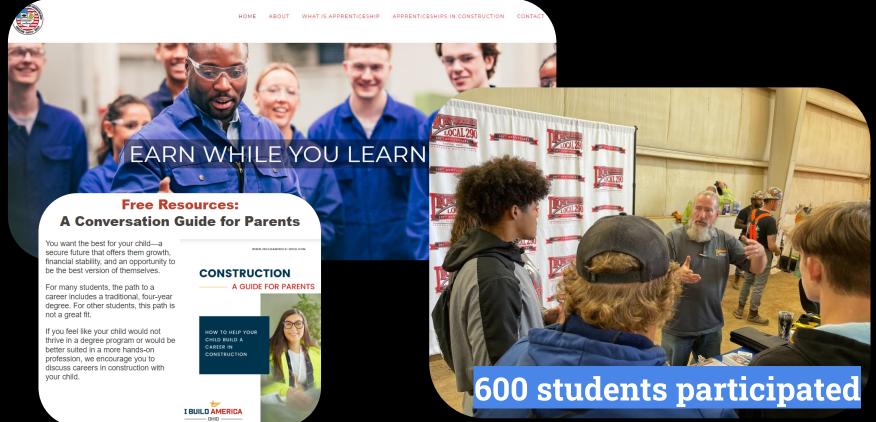
Sharing out Engineering Your Future Videos



These videos feature real stories from young professionals who want to inform and inspire students about in-demand engineering careers.

7 videos featuring local companies and partners!

Skilled Trades Appreciation Month - September



Partnered with UD to create an asset map of local programs



Organization/Program Name	\display	Care Awaren	Care Explor	Eman Planni	Fins	Fur. Lie.	Soci Mes Solt	STE.	Salues I I I I I I I I I I I I I I I I I I I
Adventure Central									
Adventure Central Day Camp	Х	Х	Х	Х			Х	X	
Adventure Central After School Program	X	х		х	х	х	х	×	
Air Camp									
Elementary Air Camp	X					Х		×	Significance o
Middle School Camps	×	х		×		×		×	
High School Camps	x	х	х	х				х	
Boys and Girls Club of Dayton						_	_		
Career Launch	×	х		X	х	×			
Brixalated									
Brixalated Builders Academy	\top	Х	х	х			х	X	
Chaminade Julienne Catholic High School							_	_	
STEMM Summer Camp	х	Х					х	х	
Dakota Center, Inc.						_	_	_	
Dakota Leadership	x				х		х		
Dayton Regional STEM Center						_			
Science Saturdays	×							×	
Delightfully Understandable, LLC									
STEM Whisperers	х	Х	х			х	х	Х	
Huber Heights City Schools						_	_		
STEM Camp	х			х			х	×	
Huber Heights City Schools									
STEM Camp	х			х			х	х	
Junior Achievement of OKI Partners						_			
Virtual Career Exploration Fair	×	Х	×	X	х			X	
A More than Money	x	х	х		х				
A Our Nation	X	х	х	х	х	х		х	
A Our Community	×	х		×		×			
A Our City	x		×		×	×			
Miami Valley Urban League						_	_		
EMERGE	×	х		х	×	×	х		Mental health
			_				_		

Healthcare Careers Implementation Lab







Montgomery County Health Science Pathway

Regional pathway models support the alignment of stakeholders including employers, higher education, K-12, and workforce, to ensure pathways prepare young people for careers with family-supporting wages and build a robust talent pipeline for employers. Pathway models demonstrate a vision from 8th grade to career including high school coursework, college and career preparation activities, potential postsecondary programs, and indemand jobs in the regional labor market. This is a living document that will need to be updated regularly to reflect current education programs and workforce needs.

Academic Coursework

This general coursework is recommended for all students in the health science pathway.

	Grade 8	Grades 9 and 10	Grade 11	Grade 12	
Career Focused Courses	Health Science and Technology	Foundational Health Science or CCP Course such as: ALH 1101-Introduction to Healthcare Delivery	Strategic CCP Course such as: HIM 1101–Medical Terminology	Strategic CCP Course such as: PSY 1100–General Psychology	College Credit Plus (CCP)
English	Grade 8 English	English I, English II ENG 1101–English Composition	English III COM 2206–Interpersonal Communication	English IV COM 2206-Interpersonal Communication	courses apply to a broad range of postsecondary programs in
Math	Grade 8 Math or Algebra I	Algebra I, Geometry MAT 1470-College Algebra	Algebra II	Trigonometry/Calculus MAT 1470–College Algebra	health science. The credits apply to both
History	Social Studies	World History	US History	US Government	high school and postsecondary
Science	Physical Science	Biology BIO 1107-Human Biology	Chemistry	Physics BIO 1141–Principles of Anatomy & Physiology I	requirements, saving students time and money.

College and Career Preparation

These additional activities support students in preparing for both college and career. Work-based learning enables students to apply their academic learning in a real-world setting. Advising supports students in making decisions that align best with their strengths and future goals. Competencies describe the technical skills students need for a successful career in the health sciences.

	Grade 8	Grades 9 and 10	Grade 11	Grade 12
Work-Based Learning	Career Exploration: Career Adventures Course—Healthcare Work-Site Tours Power Lunches Pathway Fairs	Career Planning: • Job Shadow • HR Interview • Virtual Pathway Mentor • Resume Prep	Career Planning: • Internship • Career Fair • Mock Interview	Career Planning: Internship Career Fair Mock Interview
Advising	YouScience	Individualized College and Career Plan (ICCP) Confirmation of Pathway Identification of Credentials and College Options Revisit ICCP	Financial Literacy Course College Application Prep Work Industry Recognized Credential Examination	Free Application for Federal Student Aid (FAFSA) Complete Ohio Means Jobs (OMJ) Readiness Seal College and Career Signing Day
Competencies	Employability Skills	Computer Applications, Records, and Data Recording Professional Working Environments Healthcare Rules and Regulations Healthcare Industry Ethics Healthcare Confidentiality	Medical Terminology Customer Service and Patient Focus Healthcare Safety Systems and Environment Healthcare Professional Licensure Healthcare Sanitation	• Individualized Specialization

• Health Science Technical Competencies

Computer Applications, Records, and Data Recording Use understanding of keyboarding, data entry, and word processing to accurately record information on health technology systems.

Professional Working Environments of a sequence of tasks, cross-functional working environments, and professional communication to successfully work as

part of a team.

Healthcare Rules and Regulations Healthcare Confidentiality Use understanding of HIPAA in order Use understanding of basic laws and regulations (Patient Bill of Rights, CLIA. to adhere to legal requirements and EMTALA, OSHA, etc.) to meet accreditamaintain confidentiality. tion standards and obey the law.

Medical Terminology Healthcare Industry Ethics Use understanding of basic medical Use understanding of confidentiality, terminology, including abbreviations, morality, and legal concepts to evaluate acronyms, and diagnostic terms, to and apply the ments, risks, and social communicate effectively with healthcare concerns to workplace decisions. personnel and patients.

Customer Service and Patient Use understanding of communication,

active listening, and conflict resolution to identify and meet the needs of a patient or oustomer. Healthcare Safety Systems and

Healthcare Sanitation Environment Use understanding of health and safety procedures and protocols to ensure a safe, secure, and healthy work environment.

Health Professional Licensure Use understanding of appropriate

industry education requirements. licensure, and certification to ensure adherence to regulations that guide service delivery.

Use understanding of health deanliness regulations and sanitation procedures to ensure that healthcare facilities and tools meet standards for cleanliness.

Selected Postsecondary Options

The selected postsecondary credentials in health science are based on program options and transfer agreements at Sinclair Community College. Some education paths have credentials that easily stack or build from the previous credential, while others are not as easily stackable. Stackable credentials can help an individual progress in their career pathway or move up a career ladder to different or higher paying jobs.

		Potential Initial Credential	al Stackable Credentials				
	Allied Health	Radiographer	Associate of Applied Science in Radiologic Technology—students eligible to take the ARRT exam	Advanced Imaging Certifications e.g.: Computed Tomography (CT), Magnetic Resonance Imaging (MRI), and Mammography Bachelor of Radiation Science Technology Bachelor of Science in Healthcare Administration		Radiologic Technician	
		State Tested Nurse Aide (STNA)	Associate of Applied Science in Respiratory Care	Bachelor of Healt	ce in Respiratory Care th Sciences ce in Healthcare Administration	Respiratory Therapist Dental Hygienist	
		Certified Dental Assistant	Associate of Applied Science in Dental Hygiene—students eligible to take state board exams and apply for state licensing	Continuing Educa	on Dental Auxiliary (EFDA) ation Programs hesia and Nitrous Oxide for		
•	Nursing	State Tested Nurse Aide (STNA) Licensed Practical Nurse (LPN)	Associate of Applied Science (AAS) in Nursing—students eligible to take RN exam	Bachelor of Science in Nursing (BSN)	Master of Science in Nursing (MSN)	Nurse	
•	Guided Transfer (pre-med, pre-dentistry, or other advanced degree track)	State Tested Nurse Aide (STNA)	Associate of Science in Pre-Professional Studies	Bachelor of Science	Doctoral Degree	Physician (Doctor or Dentist)	

Selected Occupations, Wages, and Job Growth

The health science careers listed below are projected to grow in the region. The living wage (\$23.16/hour) is from the MIT Living Wage Calculator for one adult and one child in Montgomery County in 2021. Note that some jobs in the table do not pay a living wage and do not easily stack to further credentials, making economic advancement difficult.

Ш								wth
	Typical Job	Pays Living Wage (\$23.16)	Median Hourly Earnings	Preferred Education	Stackable Credential	Positions (2020)	Positions	Percent
II	Home Health and Personal Care Aides		\$11,33	Short-Term Home Health Aide Certificate	Not typically stackable	3,458	860	25%
П	Medical Assistants	200	\$16.53	Medical Assistant Technology (AAS)		1,701	432	25%
	Emergency Medical Technicians and Paramedics	No	\$16.53	Emergency Medical Services (AAS)		502	159	32%
П	Phlebotomists		\$16.85	Short-Term Phlebotomy Certificate		742	144	19%
	Medical and Health Services Managers		\$47.22	Health Information Management/ Administration (BS)	Health Administration (MS)	808	116	14%
ı	Respiratory Therapists	Yes	\$28.60	Respiratory Care (AAS)	Respiratory Care (BS)	584	71	12%
l	Radiologic Technicians		528.24	Radiographic Technology (AAS)	Radiation Science Technology (BS)	626	43	7%
ı	Diagnostics Medical Sonographers		\$35.77	Diagnostic Medical Sonography (AAS)	Diagnostic Medical Sonography (BS)	284	39	14%
	Dental Hygienists		\$34.00	Dental Hygiene (AAS)	Expanded Function Dental Auxiliary (EFDA) License	644	20	3%
ı	Registered Nurses		\$32.61	Nursing (BS)	Nursing (MS)	10,190	611	6%
٠	Nurse Practitioners	Yes	\$51.02	Nursing (MS)	Terminal degree for this occupation	672	174	26%
	Physicians	Yes	\$101,08	Doctor of Medicine (MD)	Terminal degree for this occupation	1,220	141	12%

This document was developed by JFF, Learn to Earn Dayton, and the Montgomery County ESC. Special thanks to the Greater Dayton Area Hospital Association (GDAHA) Education Subcommittee and Sinclair Community College for your feedback and contributions.

Advanced Manufacturing Implementation Lab





Miami Valley Intern Academy

An opportunity for 11th and 12th graders to have a paid internship in the following industries:

- Aerospace
- Agriculture
- Business Operations
- Construction
- Engineering

- Information Technology
- Healthcare
- Logistics
- Automotive
- Manufacturing













Expanding access to resources like:









So we can track and support our partners better! This is how we will scale!









Let's Explore Careers-Virtual Career Day Session-Government

Presented By



Bryan Stewart Workforce Director at Learn to Earn Dayton

Alternative Titles

Child Welfare Services Director, Social Services Director, Transitional Care Director, Vocational Rehabilitation Administrator

What they do

Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.

Learn More View Profile

Related Videos



Who's taken a career exploration survey before?

Who's heard of YouScience?

Nationally: Almost 2x the aptitude for health science careers than interest.

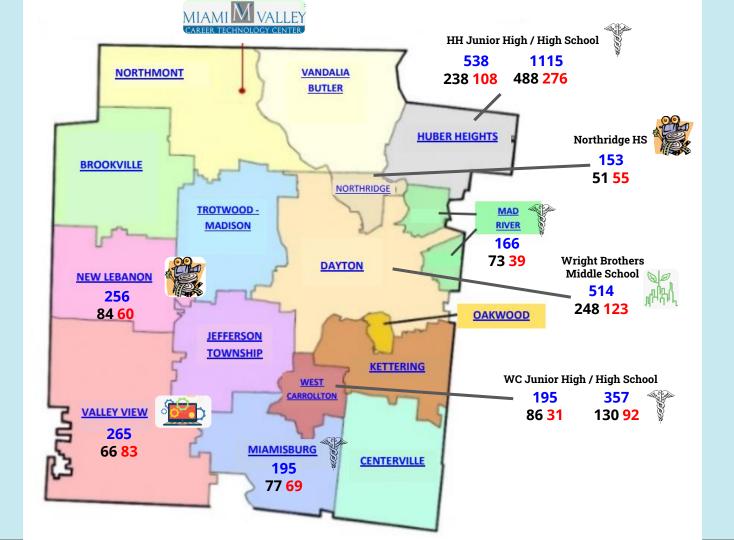


STATE OF THE FUTURE U.S. WORKFORCE:

Student Ability Report

A look at the potential impact on U.S. education and industry due to the misalignment between high school student ability for and interest in best-fit, in-demand postsecondary college and career opportunities

Student Ability Report shows student career exposure gap and recommended solutions



you Science Healthcare Aptitude Interest Snapshot



YouScience District Power				
Mapping 11 23 2022				
District (Building)	Total # Surveyed	Aptitude	Interest	Aptitude to Interest Fit Ratio
DPS (Wright Brothers Middle School)	514	248	123	2.77
Huber Heights (Junior High)	538	238	108	2.2
Huber Heights (High School)	1115	488	276	1.77
Mad River	166	73	39	1.87
Miamisburg	195	77	69	1.12
New Lebanon	256	84	60	1.4
Northridge	153	51	55	0.93
Valley View	265	66	83	0.8
West Carrollton (Junior High)	195	86	31	2.77
West Carrollton (High School)	357	130	92	1.41
YouScience Totals as of 11/1/22	3754	1541	936	

Out of **3,754** local students surveyed,

1541 (41%) have an aptitude in healthcare careers and

936 (25%) have an interest in working in healthcare.

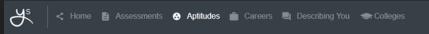




Show me something better than YouScience and I'll shout from the rooftops about it...







Hi, Bryan! 🕒

Download Aptitudes



Discover Your Aptitudes and Interests

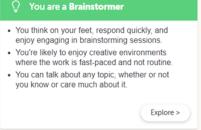




You have some serious talent and awesome career opportunities!

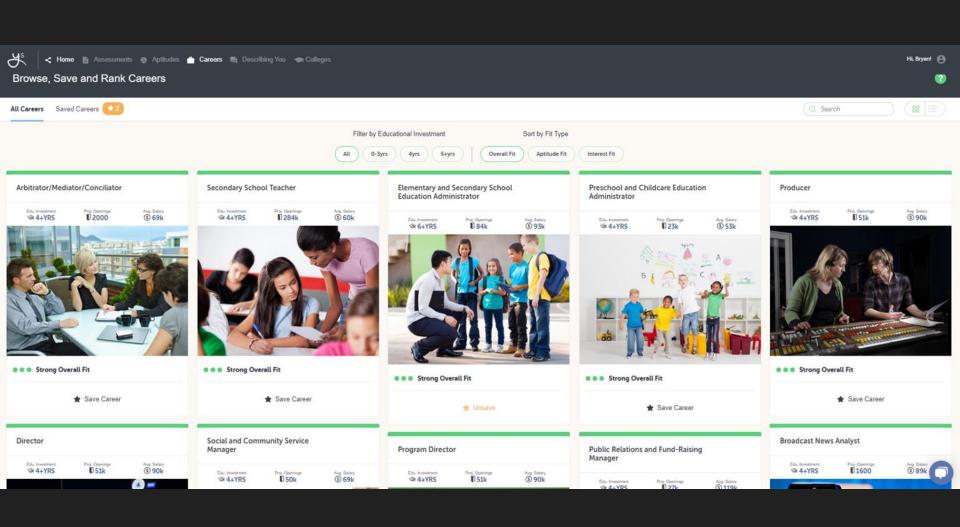
Click on each piece of the pie to explore more about your talents.





Personal Approach





Interpersonal Style continued...

You may find these things:



Meeting several new people at once and interacting with them immediately

Speaking about any topic with anyone at any time in a strong, clear voice

Acting as a social facilitator. You're great at connecting people whose interests are similar



Recharging by yourself

Being out of the loop from what's going on with

Noticing when others want to interject

Sharing intimate details with others

Expressing your ideas formally in writing

Your Friends & Co-workers Recognizing this aptitude in others

Extrovert - YOU

Extroverts are sociable and expressive, outwardly focused, communicate by talking and thinking out loud, learn by discussing, and enjoy group work as a way to get energized. They tend to be outgoing, gregarious, enthusiastic, and social. They naturally initiate and sustain interactions that can lead to a broad range of friends and interests.

Extroverts tend to respond quickly when you speak to them because they process their thoughts out loud instead of internally. They seem generally interested in you while getting to know you by asking a range of surface level and personal guestions. In fact, they seem to walk away with your life story shortly after you've met them

Blended Energizer

Blended Energizers balance the traits of introversion and extroversion. They can do well in a group setting and active interaction, but they also need time to recharge their inner batteries. They tend to be flexible in how they communicate with others. They can talk openly about a wide range of topics, but also like to take time to process their thoughts before expressing them.

While Blended Energizers might hold back in a large crowd, they're assertive and easily assume leadership roles if necessary. They may seem guarded in initial introductions, but they quickly open up as others become more familiar to them.

Introvert

Introverts are introspective and quiet, enjoy working alone or one-on-one, and are reflective and private. They require time to themselves to recharge the energy drained by interacting with others, especially strangers. They often prefer observing others to interacting and tend to process thoughts internally rather than verbally. In large group settings, they often appear shy and reserved because they find it hard to interject into a conversation unless invited. They might seem shy or insecure, they often don't feel the need to share their thoughts with others.

Introverts easily direct their energy toward the inner world of experience and ideas. They might be comfortable with only a few close and deep friendships.



Impact on Daily Life SOCIAL

Bring on the party! You'll find pleasure and energy in groups, even outside the organized communities at work or school



Work Approach

Use your life outside work or school to balance your need for variety with your need for the chance to dig deep and master a topic that intrigues you. You can do both.



Louscience

Your problem-solving knack makes you a good leader in your community and volunteer groups.

Idea Generation

You're full of ideas. Your community needs them! Find a volunteer project that can use your brainstorming energy.

Spatial Visualization

Life outside work or school might be where you can most enjoy your knack with concrete objects and physical space.



Seguential Reasoning

Your life outside work or school will likely be organized. Even if you can't control everyone and everything in your home environment, you can try to make your own space and activities reflect your gift for order.



INTERESTS VARY, BUT APTITUDES REMAIN CONSISTENT

The University of Missouri compared 7,222 (3,619 female and 3,603 male) high school students' self-reported interests and assessed natural aptitudes in four rapidly-growing industries: manufacturing, computer technology, construction and healthcare (direct patient care and technical).

According to the university's research, interests are influenced by perceived societal norms, which can limit the scope of students' career exploration. While interests vary by gender, both males and females demonstrate equal aptitudes for careers across the four study industries.

- Male students demonstrated a greater interest in manufacturing, construction, computer technology and tech-focused health care jobs, while females were more likely to demonstrate a high interest in patient-centered health care.
- However, aptitude assessments helped identify seven times more female students with the natural talent for careers in construction and technical health care, four times more females with the talent for jobs in the manufacturing field, and twice as many females with the talent for jobs in computer technology.
- Aptitude assessments also helped identify nearly twice as many males with the talent to pursue jobs in patient-centered health care.

As the research concludes, "In a post-COVID world, there will be slack in the labor markets. As a result, the risk increases for students as they move from educational pathways to careers. Without making intentional decisions to align aptitudes, interests, educational pathways, and labor market needs, students could suffer real economic harm." Helping all students – especially females and others who may have constrained visions of opportunity – better understand how their unique aptitudes align with 21st century careers, opens the door to a more meaningful discussion on talent, increased salary opportunities, improved self-efficacy in high-demand occupational fields, and, in turn, a significantly larger and more diverse workforce that will be integral to a broad and lasting economic recovery.

MANUFACTURING

4.1x more females identified

CONSTRUCTION

7.1x more females identified

COMPUTER TECHNOLOGY

2.0x more females identified

HEALTH CARE-PATIENT CARE

1.6x more males identified

HEALTH CARE-TECHNICAL

7.6x more females identified

Exposing students earlier to our indemand career fields in healthcare







Students take on future careers to Dress For Success

by WHAM | Thursday, February 1st 2018





As part of Catholic Schools Week, students at Nazareth Elementary School wore the outfits of what careers they aspired to have when they grow up. (Photo: Nazareth Elementary School)







Action Item 1:



dayton will development experience and experience a

Familiarize yourself with YouScience & contacting Bryan to take the assessment

Action Item 2:



Subscribe to this email newsletter!

Hiring the Class of 2023

College students <u>are anxious</u> about their job searches in this <u>mold-breaking labor market</u>, understandably. Handshake is one of many companies that are tracking these economic shifts. But the career networking platform also is producing an unusual blend of data on hiring and <u>how college students</u> are approaching their job searches.

Handshake connects roughly 12M college student users across 1,400 colleges and universities with internship and job opportunities at its more than 750 employer partners. The company is using this huge

Action Item: Follow the innovation that's happening across the country!

ACTION ITEM #3 Be a part of the conversation. Explore this article on the most-regretted college majors.

The most-regretted (and lowest-paying) college majors

Almost half of humanities and arts majors regret their choice — and enrollment in those disciplines is shrinking rapidly







https://www.washingtonpost.com/business/2022/09/02/college-major-regrets/



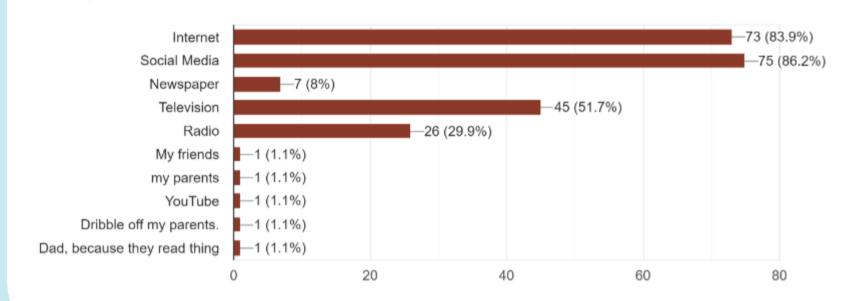


Consider ways you can get your staff or district leaders out to meet with tech industry partners.

Pick an indemand sector and begin looking at what a formal (or informal) pathway design lab could look like for your region!



I get "news and information" from the following sources: 87 responses

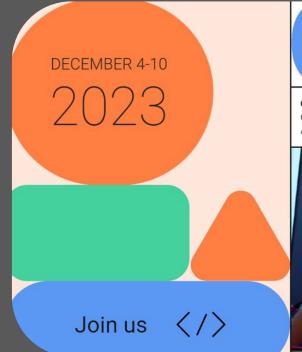


ACTION ITEM #7 Commit to incorporating student voice!



Begin designing system level tools like Career Fair Google Forms or implementing job shadow packets for careers in tech!

Email me for a touch a truck guide!



CSEd Week

COMPUTER SCIENCE EDUCATION WEEK IS AN ANNUAL CALL TO ACTION TO INSPIRE K-12 STUDENTS TO LEARN COMPUTER SCIENCE, ADVOCATE FOR EQUITY, AND CELEBRATE THE CONTRIBUTIONS OF STUDENTS, TEACHERS, AND PARTNERS TO THE FIELD.



Help your region participate more deeply in weeks of career exploration like In-Demand Jobs Week in May!

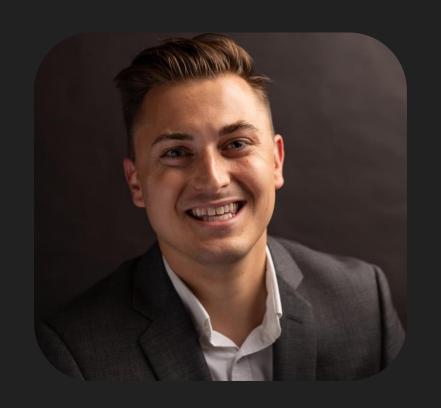


As part of Catholic Schools Week, students at Nazareth Elementary School wore the outfits of what careers they aspired to have when they grow up. (Photo: Nazareth Elementary School)

Commit your community/district to host a Dress for Success or Touch a Truck event for your elementary school students this spring.



We must engage students earlier to address our the needs of our talent pipeline.



Bryan Stewart Workforce Director

Montgomery County ESC & Learn to Earn Dayton bryan.stewart@mcesc.org

