

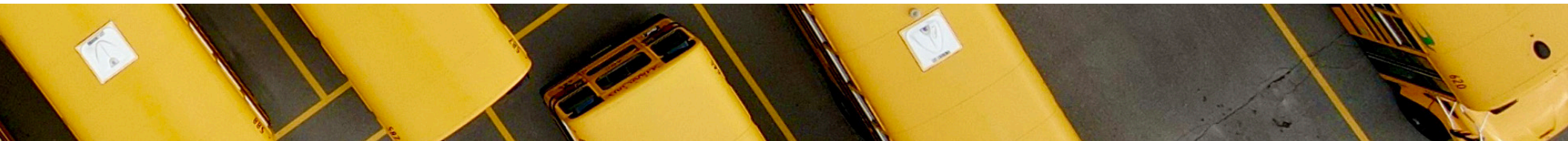


**DETROIT
FUTURE
CITY**

CAREER-CONNECTED LEARNING

INVESTING IN DETROIT'S FUTURE TALENT

MAY 2026



CAREER-CONNECTED LEARNING

INVESTING IN DETROIT'S FUTURE TALENT

A publication of Detroit Future City's Center for Equity, Engagement, and Research

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Released: May 2026

Recommended citation:

Wagh, V. (2026, May). Career-Connected Learning: Investing in Detroit's Future Talent. Detroit Future City.

Retrieved from https://detroitfuturecity.com/wp-content/uploads/2026/05/Career-Connected-Learning_May_2026.pdf

ACKNOWLEDGMENTS

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FUNDED BY

The Skillman Foundation

Thank you to our research advisory committee, roundtable/interview participants, and youth who provided their valuable expertise and insights to inform this report.



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EXECUTIVE SUMMARY

As the future of work changes rapidly, it is reshaping the skills that young people need in order to meaningfully participate in the labor market and improve their long-term economic outcomes. Many efforts are currently underway—in schools and through youth organizations, employers, and other partners—with a goal to build the capacity of young people and prepare them for life after high school.

Today, young people need to know how to connect what they learn in school to their future area of work and make informed decisions on the pathway they must take to get there. They need exposure, guidance, and training that shows how to balance their interests and strengths with stability, and how to access and succeed in jobs that provide at least a middle-class wage. A talent pipeline built this way can also directly support the economic development of the city and the region. Career-connected learning is central to this effort.

In Detroit, there is meaningful progress on this front. Through conversations with young people and stakeholders, and an analysis of data, the report identifies where there are gaps and barriers in the system, what is working and where there are bright spots, and where clear opportunities lie to build on that momentum.

KEY ENGAGEMENT TAKEAWAYS

CAREER AWARENESS AND EXPLORATION



- Young people know of, and take part in, career awareness and exploration activities to some extent, but not all experiences resonate with their actual interests.
- Stakeholders support introducing career activities in elementary and middle school in engaging ways and for external experiences to intentionally complement in-school learning.
- Many young people are unfamiliar with terms like “high opportunity” and “high growth,” and want more guidance to fully understand and pursue jobs in these pathways.

KEY ENGAGEMENT TAKEAWAYS

CAREER GUIDANCE



- Youth have limited exposure to online career exposure and navigation tools, and their experience is shaped by how it is implemented in schools, alongside one-on-one guidance.
- Young people are choosing interest- and value-based pathways, but seek more guidance on career planning from educators and mentors, and access to supports.
- Parent and family engagement and support substantially increase student success, but parents themselves need more awareness of and communication on opportunities.
- Young people are aligning their interests with practical priorities, but college costs, advances in AI, and mental health are influencing their decision-making, as well.

WORK-BASED LEARNING



- Access determines whether young people take part in and complete Career and Technical Education (CTE) programs, and limited flexibility to change direction in a CTE pathway further restricts options for young people.
- Young people face challenges in CTE credential attainment because of administrative delays and exam-related logistics, including insufficient mandatory hours.
- Data are not publicly and centrally available for charter schools or many of the other work-based learning models, like dual enrollment, career academies, or trade schools.
- Youth are looking to build their technical, durable, and life skills, but run into challenges such as limited exposure, insufficient academic preparation, and uneven access.
- Youth value and desire more intentional skill development support through mentorship activities and employer-led experiences to discover their interests and strengths.
- Employers place much value on curiosity, durable skills, digital literacy, and a strong science and math foundation, rather than on direct experience.
- Young people face systemic, logistical, administrative, and communication barriers that limit their participation and engagement in learning experiences.
- Partners do collaborate across the ecosystem, but efforts are sometimes overlapping or fragmented, with strategies and investment needing alignment to the workforce.

KEY DATA TAKEAWAYS

Career and Technical Education (CTE) programs are seeing modest student enrollment.

- Only 15% (2,128) of ninth- to 12th-grade students in Detroit Public Community Schools District (DPSCD) were enrolled in CTE programs in 2023-24.
- The Business, Marketing and Finance cluster saw the largest student enrollment, followed by Human Services, Skilled Trades, and Computer Science and Digital Multimedia.
- Less than half the participating students in Business, Marketing, and Finance were completing the sequence of courses to develop advanced skills in a career path.
- Agriculture, Transportation, Health, and Arts, A/V and Communications clusters had some of the lowest enrollment.
- Only 557 state-approved credentials were reported across all DPSCD CTE programs.

CTE is partially aligned with the regional labor market.

- High enrollment clusters—Business, Marketing and Finance and Human Services—have 53% and 74% of annual job openings in the Detroit Metro Prosperity Region, respectively, that are accessible and low wage, requiring only a post-high school credential. This compares to 11% in both that requires education and/or training beyond high school, and often provides wages that approach or cross the middle-wage threshold, for which CTE aims to prepare students.
- The Skilled Trades and Health clusters, especially, have the highest annual job openings in the Detroit Metro Prosperity Region, with 29% and 39% respectively, that require education and/or training beyond high school, and tend to offer better salaries that meet or exceed the middle-class threshold.
- There are also high-wage jobs in Business, Marketing and Finance (36%), Computer Science and Digital Multimedia (84%), Human Services (15%), Health (25%), and Skilled Trades (14%), that require postsecondary education.

Registered Apprenticeship (RA) programs were strongly represented in the region.

- As of 2024, the Detroit Metro Prosperity Region had 7,923 active apprentices, crossing a milestone of over 3,000 new apprentices in 2024 for the first time.
- Sixty-eight percent of active apprentices are engaged in the Construction industry and 23% in Manufacturing. Less than 10% are engaged in non-traditional industries, such as Health Care and Social Assistance, Utilities, and Educational Assistance.
- Those in the region who have completed an apprenticeship boast a 94% employment rate.

RECOMMENDATIONS

CAREER AWARENESS AND EXPLORATION



1. Ensure every student, beginning in elementary and middle school, is aware of, has access to, and meaningfully takes part in a wide range of career exploration opportunities.
2. Expand awareness of, access to, and communication on high-opportunity and high-impact career pathways and related labor market trends.

CAREER GUIDANCE



1. Improve the communication on and implementation of online career exploration and navigation tools in schools.
2. Engage parents and families actively and intentionally in their child's education and early career journey.
3. Invest in building and growing mentorship pipelines and peer networks for youth.

WORK-BASED LEARNING



1. Add and expand CTE or similar work-based learning programs to reflect student interests and current and future workforce needs.
2. Develop and expand access to flexible, high-quality dual enrollment options in high schools.
3. Bring in employers and industry associations to co-create and co-invest in CTE credentials.
4. Strengthen data-reporting requirements and data infrastructure across academic and work-based learning programs.
5. Support young people in developing both hard and soft skills needed in the workplace.
6. Introduce and scale "earn-and-learn" models that meet both youth and employer needs.
7. Address access, administrative, and communication barriers to career-connected learning and employment opportunities.

INTRODUCTION

Education is deeply linked to economic opportunity. It is one of the strongest predictors of income potential, stable employment, and entry into the middle class.ⁱ In Detroit, where more than 80,000 students are enrolled in schools, this connection between education and economic opportunity has been especially important. School and college experiences directly influence the types of jobs young people pursue and their long-term economic success. These experiences also define the future of Detroit's workforce.

Preparing youth for jobs in a rapidly evolving labor market requires intentional and early exposure to high-opportunity and high-impact careers and clear pathways into a wide range of industries. Youth also need consistent guidance and practical experiences to build relevant, future-focused skills. Yet, for many years, Detroit youth have had uneven access to educational resources, supports, and real-world experiences to successfully navigate college and career pathways.

These challenges are not a reflection of student potential or of innovative programs trying to bridge the gaps. Instead, they reflect systems that are stretched and unevenly aligned. Long-standing inequities have contributed to uneven career readiness and narrowed options for too many young people. The impact of this is visible in outcomes across the pipeline, from early literacy to postsecondary enrollment.ⁱⁱ

At its core, this work seeks to ensure that young people have real choices—whether it is to pursue college, a skilled trade, entrepreneurship, or another route, and that each pathway positions them for well-paying and meaningful career opportunities on the other side of their educational experience.

Career-connected learning is a key strategy to make this possible. Stronger alignment of classroom learning to workforce needs, sustained investment, and intentional inclusion of youth voice are essential to create and expand such pathways that connect students to the region's future economy.

Meeting this need cannot fall to any single organization. Partners in the ecosystem, from educators to employers, policymakers, and community stakeholders, must all work together intentionally to expand and strengthen career-connected learning.

Building solutions to address these challenges is critical, not only as a youth development strategy, but as an economic development imperative for the region.

What this report delivers

This report centers the voices and experiences of Detroit's youth as it examines how different partners in the city are aligned to connect young people to economic opportunity in the region. Using data, focus groups, and interviews, this report examines where gaps exist between what students need, what schools provide, and what employers expect.

The analysis draws on:

- **Educational and labor market data** to assess career pathways, regional labor market alignment, and outcomes for Career and Technical Education (CTE) and apprenticeships, the two most prominent models of career-connected learning in the city.
- **Youth experiences**, captured through a series of focus groups with more than 90 people ages 16-24, and a survey of 83 youth who are attending or have attended school in Detroit.
- **Stakeholder perspectives**, gathered through roundtable sessions and interviews with about 25 education and workforce partners.

Together, these insights highlight bright spots, system-level challenges, and offer actionable recommendations to strengthen career-connected learning citywide.

See appendix for more details on the methodology.







CAREER-CONNECTED LEARNING

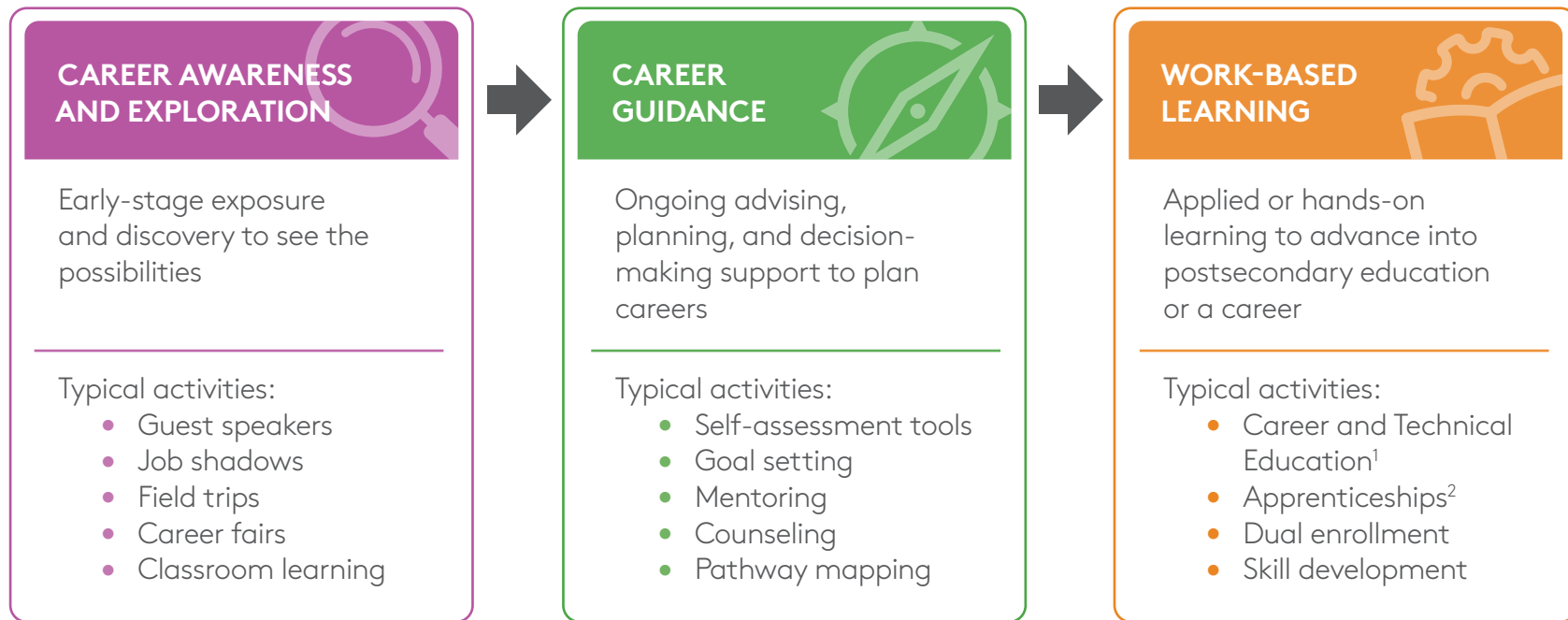
CAREER-CONNECTED LEARNING

Career-connected learning can be defined as approaches that connect a student's academic learning to a prospective career.

It bridges the gap between education and the workforce, equipping young people with skills, experiences, and networks that provide the foundation needed to access and succeed in diverse career pathways.ⁱⁱⁱ

Approaches to career-connected learning span a sequence of coordinated activities—from career awareness and exploration to career navigation and work-based learning experiences.

The three-part career-connected learning framework supports K-12, postsecondary, and career goals.



¹ For a deep dive into Career and Technical Education in DPSCD, refer to page 41.

² For an overview of Registered Apprenticeships in the Detroit Metro Prosperity Region, refer page 58.

Detroit/Regional labor market

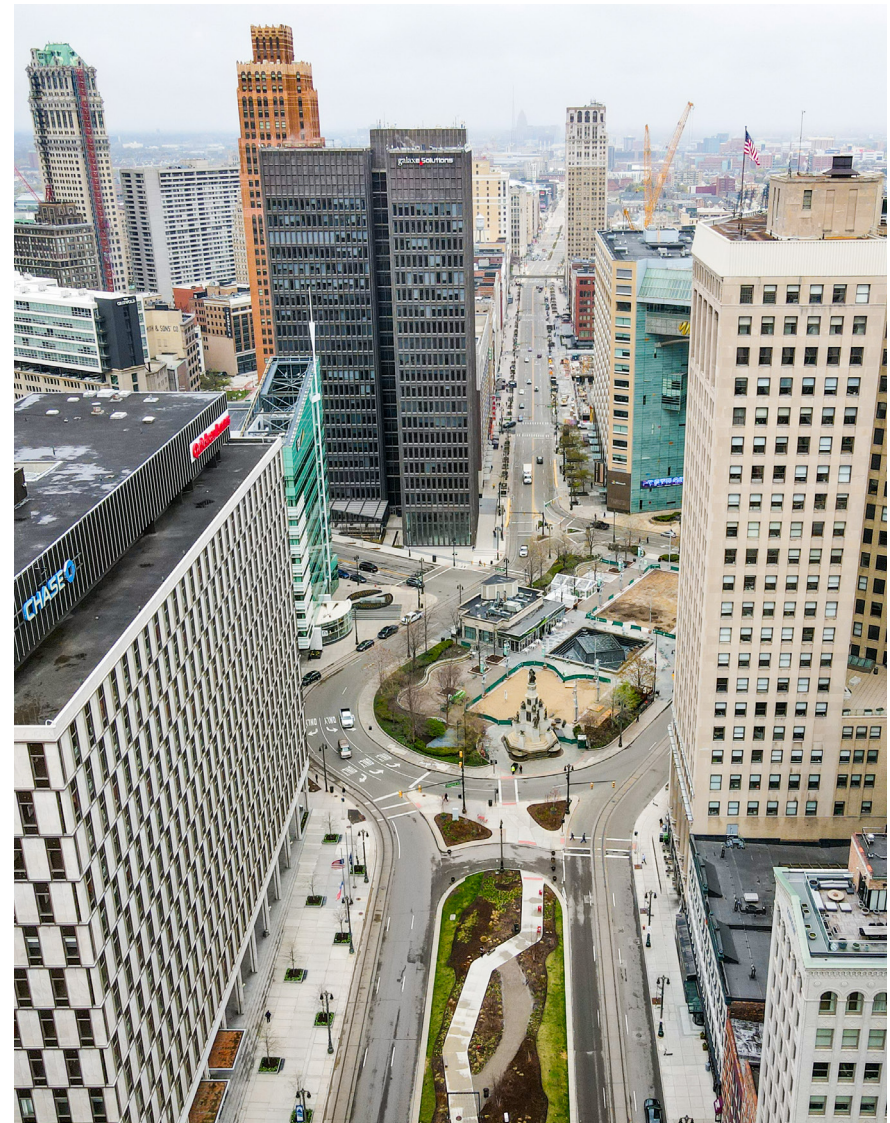
Detroit and the broader region have experienced significant economic expansion over the past decade, with key industries like Health Care, Manufacturing, Business, Marketing, and Finance growing and diversifying. As job roles evolve, partly due to AI, there is a rising demand for skilled workers across both established and emerging sectors. To access and succeed in this evolving labor market, Detroit youth need a strong educational foundation infused with career-connected learning and an ecosystem that consistently connects them to these roles. Detroit's long-term economic vitality depends on cultivating a workforce ready for high-opportunity and high-impact occupations.

High-opportunity occupations are positions in high-demand fields with strong job growth and high earning potential, such as jobs in Health Care, Science, Technology, Engineering and Math (STEM) and Business and Management.

High-impact occupations are positions that are purpose- and change-driven, and lead to significant, measurable results, like jobs in Education and Social Services.

Some occupations have significant overlaps between both categories, offering both strong job market prospects and societal contributions.

Career-connected learning must therefore be grounded in these economic realities and emerging industry trends to ensure that Detroit's young people can access rewarding, stable, well-paying careers, and employers can find the talent they need to sustain and grow.



Current educational outcomes in Detroit

Detroit's young people navigate a complex educational landscape of traditional public schools, charter schools, and private schools, each offering varied learning experiences, including career-connected learning opportunities and preparation for postsecondary pathways. Though the regional economy presents real opportunity, the current educational outcomes in Detroit reveal persistent and compounding challenges that limit young people from accessing these pathways.

- **Reading proficiency, an early milestone of academic success, remains low.**

Only 13% of all third-graders in DPSCD were proficient or advanced in English/language arts in 2024-25, up 1 percentage point since 2018-19.^{iv}

- **High school graduation rates are improving, but dropout rates have stayed roughly the same, and postsecondary transitions remain low.**

High school graduation rates rose from 71% in 2021-22 to 78% in 2023-24, and dropout rates increased marginally, from 14% to 16%.³ Additionally, only 46% of students enrolled in a college or university within six months of high school graduation.^v

- **Overall educational attainment remains below regional levels, limiting job opportunities and restricting upward mobility.**

As of 2024, nearly one-third of Detroit's residents over the age of 25 have no education beyond high school. Only 19% hold a bachelor's degree compared to 36% in the region, and 17% have not completed high school at all, as opposed to 9% in the region.^{vi}

These numbers underscore that too many students are disengaging from a system that feels disconnected from their aspirations and the region's economic future. However, this also points to a strong opportunity to collaboratively strengthen career-connected learning as a strategy for student engagement and long-term success.

³ Graduation and dropout rates are based on a cohort that graduates four years after enrolling in the ninth grade. They do not include those who are other completers (GED, HSE, etc.) or those continuing beyond four years.

Key stakeholders in the ecosystem

The broader career-connected learning ecosystem encompasses education, workforce, community organizations, and intermediaries. Each of these play distinct and complementary roles in helping young people move through their education and careers.

Key stakeholders in the career-connected learning ecosystem

Stakeholder group	Key participants
Education partners	<ul style="list-style-type: none"> • K-12 schools • Two-year community colleges • Four-year colleges and universities • Trade and technical schools
Employers	<ul style="list-style-type: none"> • Businesses and corporations • Industry associations • Apprenticeship and workforce training providers
Community-based organizations	<ul style="list-style-type: none"> • Youth-serving organizations • Parent and family organizations • Policy and advocacy organizations • Philanthropic organizations • Wraparound service providers
Workforce system and intermediaries	<ul style="list-style-type: none"> • Workforce development boards • Local and state workforce development agencies • Other local and state agencies • Talent intermediaries • Regional talent collaboratives



Frameworks and initiatives supporting career-connected learning

Frameworks like the Michigan Career Development Model and the Education Development Plan, initiatives such as the Career Readiness Collaborative, and resources like the Career Navigation Resource Guide set the expectations for career-connected learning statewide. Detroit-based programs, such as those through Detroit Public Schools Community District's (DPSCD) Office of College and Career Readiness and the Mayor's Workforce Development Board translate these frameworks into tangible opportunities for youth.

These frameworks and initiatives can have a strong impact when programs and funding are intentionally aligned with the realities of the city's and region's labor markets.

Work-based learning models

A variety of programs in high school combine classroom learning with workplace experiences. Some of these established and scalable models include Career Academies, Career and Technical Education (CTE), dual enrollment, early-middle college, and apprenticeships. They all play a key role in providing practical exposure and training for future careers and/or an opportunity to gain college credit.

The report does a deep dive into CTE in Detroit and provides an overview of Registered Apprenticeships in the Detroit Metro Prosperity Region.

- **Career and Technical Education (CTE):**

CTE refers to specialized high school and postsecondary programs that prepare students for high-demand, high-skill, and living-wage careers.

- **Registered Apprenticeships (RA):**

An RA program is a type of industry-certified, work-based learning experience that offers on-the-job training and academic learning.

CTE refers to specialized high school and postsecondary programs that prepare students for high-demand, high-skill, and living-wage careers.

College and career: Reframing the conversation

CTE, the skilled-trades programs, and pathways into both college and career are central themes throughout this report. However, CTE and the skilled trades are often viewed through an outdated lens—that students who pick these options are choosing to start a career immediately instead of going to college. Negative perceptions about who CTE programs serve and the types of careers they lead to discourage many from pursuing them. Persistent narratives also frame the skilled trades as inferior fallback options for those not attending college, rather than as respected or practical professions. These stereotypes undermine the credibility, value, and economic potential of these pathways.

However, modern CTE and skilled-trades programs are shifting to a career-connected learning model that offers state-approved credentials and work-based learning experiences. The programs align directly to in-demand industries such as Business, Health, Computer Science, Education, and even Transportation. These pathways serve as a bridge to postsecondary education and career ladders. Many trade program students push back against the idea that trades are the “McDonald’s jobs” of the workforce and instead describe them as “college without the debt,” offering financial stability and career advancement.

The conversation must shift from college versus career to college and career. CTE, the skilled trades, and select nontraditional pathways that align to demand in the labor market should be presented to youth as future-focused and personally fulfilling options that can offer creativity, growth, and real impact, alongside strong earnings and postsecondary opportunities.

Shifting the public narrative requires intentional action. Highlighting stories of those who enjoy and thrive in these careers, and using language that values all pathways equally, will reinforce positive, accurate messaging about these occupations. Leveraging media platforms to connect to youth and educating parents on how students can grow in these pathways, the skills they will develop, and the income they can potentially earn, can also support this effort.

When all pathways are visible, valued, and communicated with intention, young people feel more empowered to pursue careers that fit who they are and who they want to become. By moving beyond stereotypes and outdated divides, Detroit can expand economic opportunity for its youth.

Federal policy shifts

Recent federal policy shifts have also elevated the role of high-quality, career-connected learning models as central strategies for economic mobility and for strengthening the workforce. There is increased emphasis on work-based learning experiences, credentials, digital literacy, and aligning education more closely with real workforce needs. These shifts also support investments and innovation across different career-connected learning models.^{vii}

As such, Detroit sits at a pivotal moment—the labor market is evolving, the local initiatives, state frameworks, and federal policies are increasingly aligned around career-connected learning, and employers are actively seeking skilled talent. With this momentum, continued investment in K-12 education and a coordinated system-wide effort to strengthen career-connected learning has never been more urgent or more promising in connecting Detroit’s young people to opportunity.



**BRIGHT SPOTS AND BARRIERS IN
CONNECTING DETROIT'S YOUNG
PEOPLE TO OPPORTUNITY**

BRIGHT SPOTS AND BARRIERS IN CONNECTING DETROIT'S YOUNG PEOPLE TO OPPORTUNITY

To understand Detroit's career-connected learning landscape, Detroit Future City conducted a series of youth focus groups and stakeholder interviews and roundtable sessions, alongside administering a youth survey.⁴

These insights provide a look into the full set of experiences and conditions that shape a young person's career exploration and pathway—where students face challenges in career exposure, guidance, and in program access and availability, and where stakeholders need improved coordination and resource support to sustain their efforts.

Across the three approaches of career awareness and exploration, career guidance, and work-based learning, discussions also revealed where and how integrated approaches and coordinated action can help move the career-connected learning system to a more coherent and equitable one.



⁴For more information on the qualitative methodology, refer to the Appendix.

CAREER AWARENESS AND EXPLORATION



Middle school and high school are formative years for young people, as they discover their interests, abilities, values, and potential careers. Career awareness and exploration are essential components that help students reveal what excites them, what they are good at, and to see what possibilities are available as they start to consider future postsecondary opportunities and a future career.

Awareness of and participation in career exposure activities

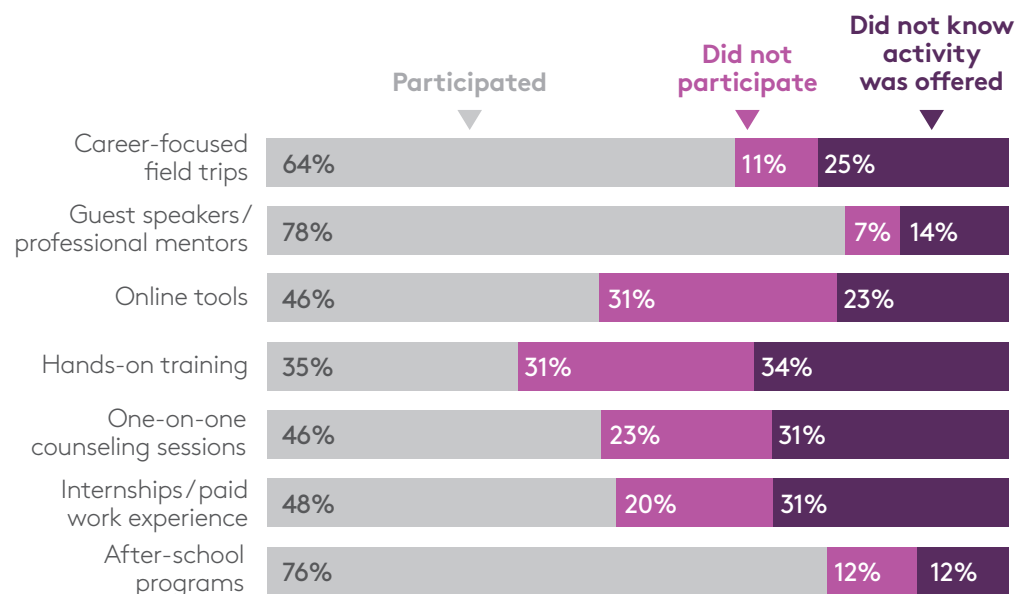
Participation in career awareness and exploration activities supports students in identifying personal interests and strengths to understand which careers suit them best.

- **Awareness of, and participation in, career awareness and exploration activities is not uniform.**

Youth participation in such activities varies across schools, with many students engaging in guest speaker and professional mentorship sessions and career-focused field trips. However, fewer were aware of, or took part in, opportunities like hands-on training, one-on-one counseling, internships and paid work experiences, and online self-assessment tools, suggesting gaps in communication, opportunity, and access.

Youth engagement in career awareness and exploration activities was uneven, suggesting gaps in communication, opportunity, and access

In high school, have you participated in any of the following career awareness and exposure activities?



Source: DFC Youth Survey, 2025 (83 respondents)

- **Some career awareness and exploration activities did not resonate with students' actual interests.**

Youth in focus groups credited guest lectures, career fairs, workshops, and youth employment programs to build early career awareness. Yet, some activities, like career fairs and guest speaker sessions, sometimes lacked relevance. College fairs helped one student pursue a career in dentistry, but for another, it felt procedural rather than a meaningful learning opportunity. Youth also noted a shortage of hands-on learning opportunities that would make exploration more tangible and engaging.

- **Exploration and learning are shaped by digital media and students' immediate environments.**

Youth are increasingly using social media platforms for learning, and exploration (e.g., networking, developing coding skills), while television also influences career aspirations. One youth participant noted that television shows prompted her interest in criminology. Stakeholders also reflected that their own career paths developed because of the people they were with and the spaces they were in.

- **Build awareness and exposure early in elementary and middle school in fun and natural ways.**

Stakeholders stressed the importance of introducing careers early on in engaging and age-appropriate ways, so students can develop their interests, better understand the world of work by high school, and see themselves in future roles. They also advocated for educators and out-of-school providers to collaborate intentionally, so external experiences complement and reinforce classroom learning.

Conversations with young people and stakeholders highlighted the need for information to reach every student and to encourage their participation in activities exposing them to careers. There is also an opportunity to curate these events and experiences to resonate more with the interests of young people, to boost attendance and impact.

Local spotlight: Developing K.I.D.S.

Developing K.I.D.S. is a youth organization, primarily serving Detroit youth ages 5-24. Through partnerships with schools, funders, employers, workforce development programs, and other nonprofits, Developing K.I.D.S. empowers youth and connects parents to create stronger communities. Its youth and workforce-development programs offer a wide range of experiences under after-school and summer programming, engaging students in career and college exposure activities, life-skills training, mentoring, career readiness and workforce-development training, as well as summer internships.^{viii}

One hundred percent of youth in the program are reported to have graduated high school. In 2023, the organization served 526 K-12th-graders through after-school programs and 104 K-eighth graders through summer programs, alongside engaging 187 youth aged 14-24 in summer employment.^{ix}



Exposure to, and interest in, high-opportunity sectors, including skilled trades

To be prepared for the future economy, young people need more than just broad career exposure—they need to understand what the high-opportunity sectors are, and how to access them.

- **There is limited understanding of “high-opportunity” or “high-growth” sectors despite emerging interest.**

Focus group participants described uneven exposure to high-opportunity and nontraditional sectors, including the skilled trades. Most were unfamiliar with the term “high opportunity” or “high growth,” revealing the disconnect in shared language between youth and workforce practitioners. Still, youth identified fields they perceived as promising, such as environmental science, game design, pharmaceuticals, IT, automotive, communications, and industrial engineering, and emphasized the importance of certifications in accessing these.

- **More research, guidance, and access are needed to fully understand and pursue these pathways.**

Though youth acknowledged the potential of these pathways, they reported needing more research and guidance on how to plan for these roles, gain practical experience, and obtain training or credentials. Their

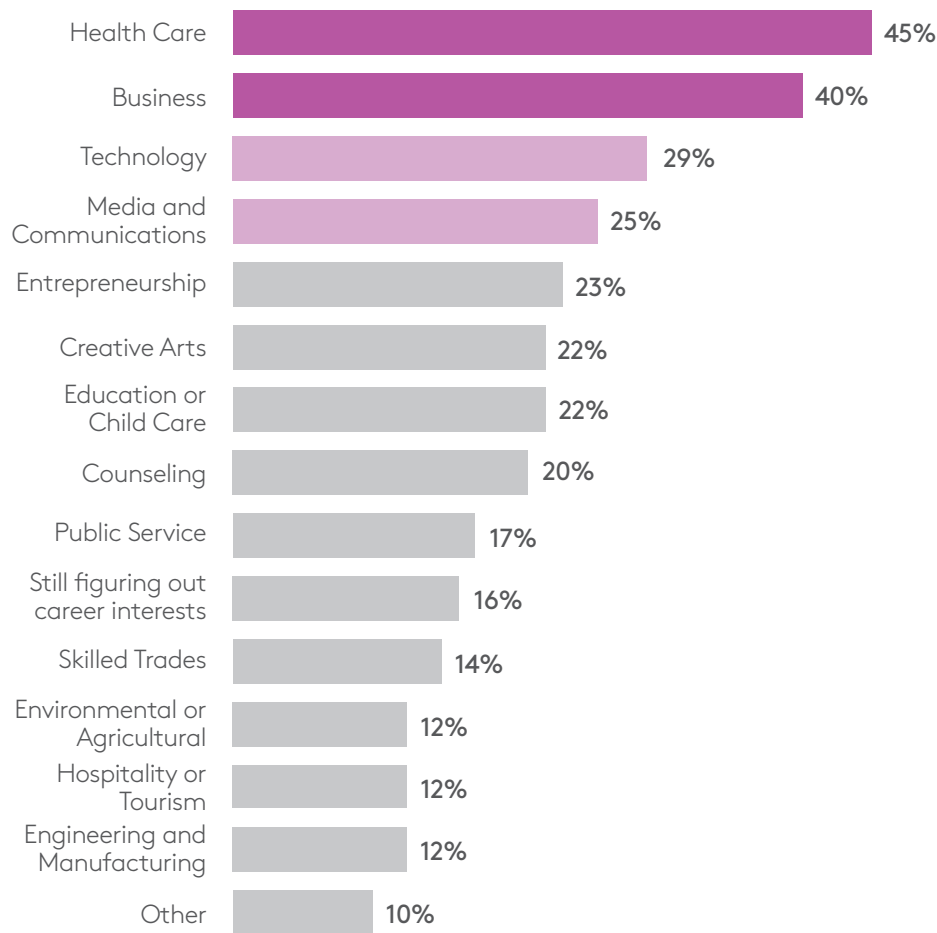
awareness was largely shaped by school, social media, friends or family, and college professors, with minimal exposure coming from formal counseling or workforce programs. Even those currently in the skilled-trades programs reported little to no trade exposure in high school. However, once introduced to hands-on learning, they described it as “fun and rewarding,” viewing the trades as a “long-term career with immediate payoff” and wishing they had been exposed earlier.

- **Visible and familiar pathways are viewed as more viable and desirable, while others stay overlooked.**

Exposure tends to drive interest. Survey responses show that the more visible fields of Health Care, Business, Technology, and Media and Communications capture strong interest compared to Engineering and Manufacturing, Skilled Trades, and Public Service. Focus group participants echoed strong enthusiasm for Engineering, Health Care and Nursing, Criminal justice, Computer science, and Psychology. Although some youth expressed interest in skilled-trades pathways as long-term career options, many high school students associated trade careers primarily with entrepreneurship or business ownership and indicated limited desire to pursue them.

Careers related to Health Care and Business generate higher interest among youth, followed by Technology and Media and Communications

What jobs/careers are you most interested in?



Source: DFC Youth Survey, 2025

Note: Youth could select more than one response for this question. Percentages show the share of respondents who selected each option. (83 respondents)

Program design, messaging, and early mentorship shapes interest in high-opportunity sectors.

Roundtable participants emphasized that getting students excited about high-opportunity sectors, including the skilled trades, lies in how academic projects and programs are designed and marketed. Early and age-appropriate career exposure, paired with mentorship and opportunities to see relatable role models succeed, can help students envision themselves in these careers.

Overall, creating and expanding more specific and more meaningful career exposure opportunities around these in-demand and good-paying careers can speak to students' interests early on. Expanding awareness and understanding of regional labor market trends, including available roles, wages, and required education, can also help students to fully explore and develop their interests.

RECOMMENDATIONS

1. Ensure every student, beginning in elementary and middle school, is aware of, has access to, and takes part meaningfully in a wide range of career exploration opportunities.

Starting in elementary and middle school, students should be made aware of, and encouraged to take part in, activities like field trips, guest speaker sessions, hands-on-learning programs, and after-school programs to spark their curiosity and connect their interests to future career pathways. These activities should be age-appropriate, designed around student interests, embedded in existing school curricula, and aligned to real-world applications. Adopting youth-centric approaches to designing such activities can also increase student engagement and make learning experiences more relevant and equitable. Outside of school, information on opportunities can be delivered through parent networks, cultural institutions, or recreation centers, and by bringing mentoring and low-barrier experiences directly into communities and schools.

This will ensure that Detroit youth encounter and explore a wide range of jobs and industries early on, are able to see themselves in future roles, and are engaged in experiences that connect to their interests.

2. Expand awareness of, access to, and communication on high-opportunity and high-impact career pathways and related labor market trends.

As students progress, they should be made aware of what high-opportunity and high-impact careers mean, the different occupations they include, and the academic programs in high school and college that can lead them to these careers. This information should be supplemented with accessible resources on regional labor market trends. Approaches can include clarifying the language around these occupations, early career exposure, and using social media and digital platforms for outreach, so students can develop interests in these fields early on. Intentional academic program design, paired with meaningful mentorship opportunities and parent involvement, can also increase student interest and engagement. Providing clear road maps that show relevant training, credentials, and experience needed to access and advance in these careers can help students plan their educational and career journeys.

Improved awareness and communication on a variety of career options—across sectors, education levels, and credential types—will support youth in making informed choices about their futures.



National spotlight:

Madison Metropolitan School District (MMSD), Wisconsin

In Madison, Wisconsin, MMSD offers a free career and technical education (CTE) summer discovery camp for sixth- to eighth-graders, where students explore a range of occupations, such as Auto and Transportation, Construction, Design, and Robotics, among others. These camps are led by licensed CTE educators and provide hands-on learning experiences and allow students to make peer and industry connections.^x In addition, MMSD's middle school CTE programs teach students skills like problem-solving, collaboration, communications, and networking with industry partners.^{xi}



Detroit schools, through partnerships with youth-serving organizations and employers, can replicate such a summer discovery program tailored to high-opportunity occupations in the region, and bring the CTE experience more formally to middle school.

The following table describes how different partners within the career-connected learning ecosystem can provide leadership, assistance, and the means to move these recommendations forward.



Lead

Schools,
postsecondary
institutions

- Integrate and scale early career awareness and exposure activities within the curriculum.
- Provide information on career pathways.
- Help change public narrative around career pathways.
- Include youth perspectives in designing career awareness activities and programs.



Support

Youth-serving
organizations

- Provide after-school exposure and career pathway resources.
- Develop parent networks.

Employers

- Offer career talks, site visits, and job shadow experiences.
- Provide information on career pathways.
- Help change public narrative around career pathways.
- Offer mentorship opportunities.



Enable

State agencies,
philanthropic
partners,
other
intermediaries

- Offer shared tools and labor market information.
- Help change public narratives around career pathways.

CAREER GUIDANCE



As students approach high school graduation, career guidance is an essential component to helping them turn awareness into action. It supports students in understanding what they value, setting goals and mapping pathways, and in helping them make informed, realistic, and meaningful choices about postsecondary education and future careers.

Exposure to online career exploration and navigation tools

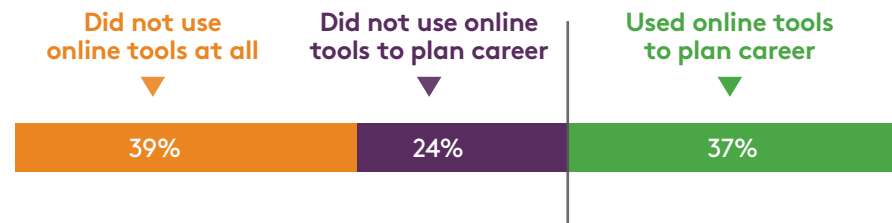
Online career exploration and navigation tools, like Xello and SCOIR, are self-assessment platforms designed to help students identify their strengths, explore college options, and discover career pathways aligned with their interests and aptitude. They also provide information on the education needed for different career paths and typical wages. In the Detroit Public Schools Community District (DPSCD), completing these modules is a requirement for graduation.

- **Required career exploration and navigation tools see limited meaningful use for career planning.**

Despite being a graduation requirement, only 37% of survey respondents reported using these tools in school to actively plan their careers. Meanwhile, 39% did not use them at all, and 24% indicated they may have used them, but not for career planning, showing a gap in compliance and meaningful engagement.

Almost two-thirds of the survey respondents did not use or did not find career planning tools helpful

In high school, did you use career planning tools like Xello, Naviance, or SCOIR? If yes, did you use them to plan your career/college major?



Source: DFC Youth Survey, 2025 (83 respondents)

- **The tools are often treated as one-time tasks rather than as ongoing resources to guide evolving interests.**

Youth in the focus groups described these platforms as minimally helpful, noting that they were often used only once to fulfill the graduation requirement. Without sustained support or accountability from counselors, engagement dropped, and their results were seldom discussed or reflected upon.

- **Impact of the tool depends on school-level implementation and counselor capacity.**

A few schools stood out for effectively integrating these tools, with counselors actively guiding students through college and career planning. However, many students reported limited exposure or had difficulty connecting recommended pathways to their interests. Roundtable participants emphasized that the tools should be used annually, starting as early as middle school, to broaden student perspectives and complement, but not replace,

one-on-one counseling. Yet, schools often face resource constraints, and counselors' limited capacity and varying familiarity with career pathways and labor market trends can shape how students interpret the results.

- **Youth respond positively to interactive and video-based tools.**

Youth development partners noted that they typically use platforms such as Hats and Ladders and Virtual Job Shadow, which have received positive feedback from young people.

To improve meaningful engagement with such tools, there is an opportunity for better implementation and communication around them in schools—not as a substitute for one-on-one counseling, but as a starting point and continued resource to understand the developmental level and interests of each student and to map potential educational trajectories based on the results.

Career influences, youth mentorship, and career planning

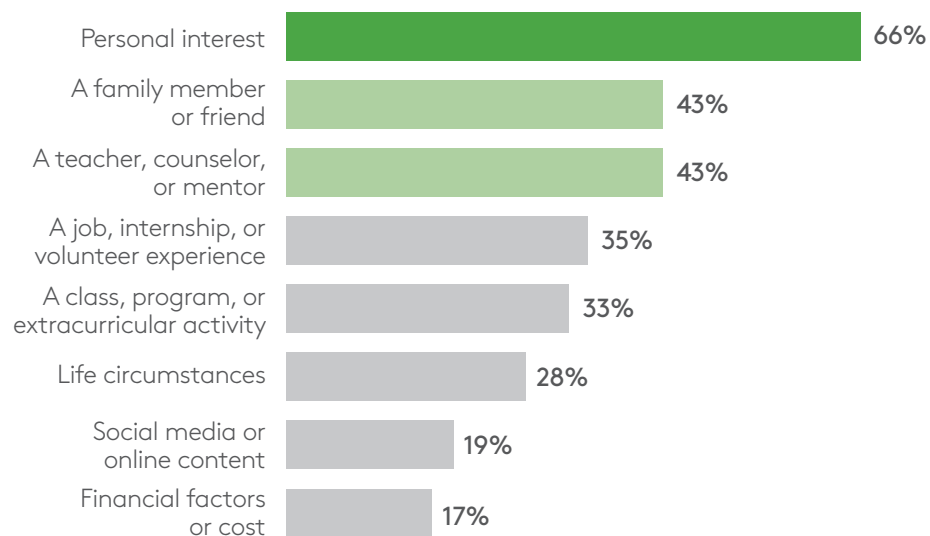
Experiences throughout middle and high school can have a lasting impact on career interests and what young people believe is possible for their future.

- **Personal, social, and experiential factors drive career choices.**

Per the survey, young people look to strongly align careers to personal interests and are also influenced by the conversations they have with family, friends, teachers, counselors, and mentors. According to stakeholders, students learn better and are likely to pursue a pathway when the experiences, guidance, and spaces that introduce them to it are fun and take their interests into account. Trade-school focus group participants, for instance, noted that teachers and mentors were especially important in building their confidence and reaffirming their career choices.

Personal interest and interactions within close personal networks play a major role in shaping career pathways and choice

Which of the following has had the biggest influence on your career pathway and choice?



Source: DFC Youth Survey, 2025

Note: Youth could select more than one response for this question. Percentages show the share of respondents who selected each option. (83 respondents).

- **Parent engagement shapes students' education and career choices, but parents need more support.**

Stakeholders emphasized that parents' overall awareness, engagement, and support strongly influences a child's success. Though parents want to be involved, they often have limited communication from school and exposure to evolving career pathways. Youth programs are increasingly providing intentional parent engagement to help bridge these gaps.

- **Youth seek more concrete guidance and broader exposure.**

Across focus groups, youth expressed a strong sense of career direction, but wanted detailed insights from teachers and guest speakers about college experiences and lesser-promoted career paths. Youth development programs are filling gaps in exposure, mentorship, and guidance. However, limited tailored career support leads students to rely on social media and self-directed learning. College outreach materials are also influencing some students' postsecondary school choices.

- **Barriers to career planning include costs, knowledge gaps, and access challenges.**

Youth said the key obstacles to career planning were the cost of college or training programs, followed by limited knowledge of next steps and insufficient understanding of the regional job market. Other challenges include limited access to training, transportation, and family support. Stakeholders reinforced that limited access to professional mentors and peer networks also limits career development.

Local spotlight:

College Career & Beyond (Midnight Golf Program)

College Career & Beyond empowers underserved youth in their senior year of high school as they transition to college and careers. The program blends character development, intentional academic planning, mentorship, and the structure and mindset of athletics to prepare students for success. Participants gain access to college fairs, scholarships, and career readiness experiences. Students also gain access to industry connections and professional networking opportunities.

Since 2001, through partnerships with postsecondary institutions, employers, and funders, College Career & Beyond has supported over 3,000 youth across Metro Detroit to attend more than 160 colleges nationwide. Every student has been accepted into college, and over 90% graduate.^{xii}

These insights lift the importance of structured support across multiple areas—awareness of interests and strengths, having conversations and experiences that build confidence in those interests, and developing a clear understanding of how to reach individual career goals.

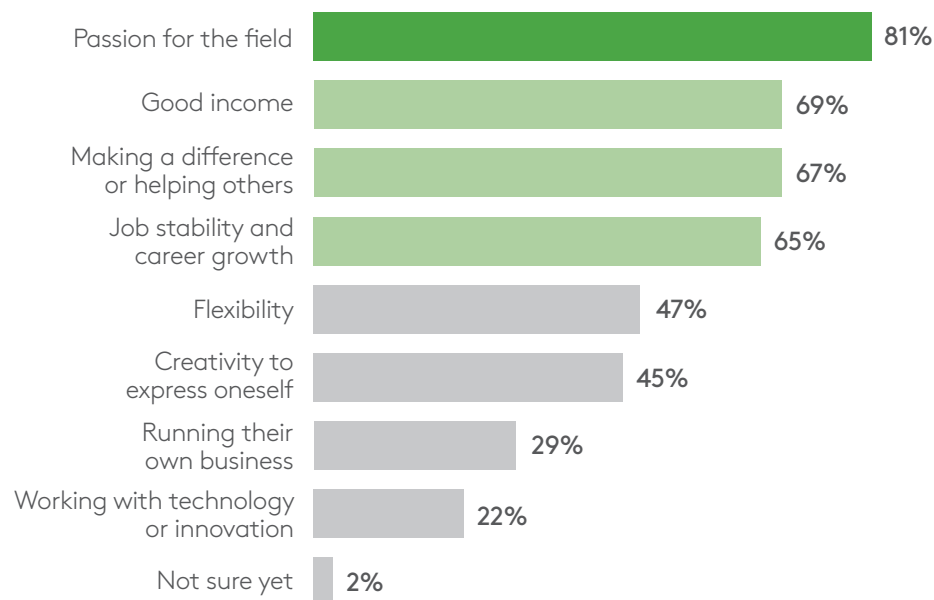
Career priorities and aspirations

Another aspect of supporting young people in their career journey is understanding what they value or look for in a career beyond just their interests.

- **Excitement about careers is guided by passion, purpose, as well as pay.**

Young people are most excited by careers that align with their passions, offer strong earning potential, and allow them to make a positive impact, which also reflects broader career priorities. Focus group participants echoed this, adding that creativity, flexibility, tangible outcomes, and opportunity to contribute to the community often shape their career choices more than salary alone.

Passion for the field is a major source of excitement about potential careers, along with good income, the opportunity to make a difference, and steady growth
What excites you about these jobs/careers?



Source: DFC Youth Survey, 2025

Note: Youth could select more than one response for this question. Percentages show the share of respondents who selected each option. (83 respondents).

- **Balancing interests with practical choices offers stability.**

Several focus group participants described adapting their paths to combine passion with stability, such as choosing a gaming-related academic program, shifting from dance to physical therapy, or pursuing environmental science for its sustainability impact. Others explored more service-oriented careers. Youth in skilled trades cited a blend of income, practicality, hands-on learning, and independence, valuing the satisfaction of creating something tangible and developing expertise in the business and management aspects of the trade. Generational pride and creative expression often serve as motivation for those interested in entrepreneurship.

- **Subtle but notable shifts are seen in young people's career priorities.**

Stakeholders noted that rising college costs, delayed access to high-paying roles, and rapid advances in technology, automation, and AI are reshaping how young people are viewing their futures. At the same time, hybrid and remote work has placed a greater emphasis on mental health and well-being. Employers, in turn, are adapting their practices to meet these evolving expectations.

As such, there is an opportunity to support and guide students in matching their interests and expectations to a career pathway. However, knowledge and access barriers can only be overcome when education, workforce, and community partners solve for youth priorities.



RECOMMENDATIONS

1. Improve the communication on, and implementation of, online career exploration and navigation tools in schools.

Better implementation of tools like Xello and SCOIR can ensure that Detroit students receive structured support in selecting classes, programs, postsecondary opportunities, and careers closest to their aptitudes and fields of interest. Improving communication around the purpose of such tools with both students and parents and integrating them throughout middle school and high school can increase student engagement with the tool. Connecting the identified pathways to regional labor market information can drive the tool's relevance in career planning. Further, using the tool to educate students on the local programs offerings under these pathways can help them map an educational trajectory. Ensuring that the tool is revisited every year in high school can help students explore different career paths as their interests and abilities evolve. Under its High School Redesign Plan, the Detroit Public Schools Community District (DPSCD) proposes structured advisory/seminar time for students in every grade of high school to better facilitate academic counseling and guide career exploration.

Personalized and structured career counseling alongside the tool can help students interpret the results of the tool and develop more robust career strategies that allow them to make better career decisions.

2. Engage parents and families actively and intentionally in their child's education and early career journey.

When parents have knowledge of the possibilities that exist for their children, they can effectively guide them in school and college. Parents and families can be meaningfully involved through support networks that set up two-way communication, shared decision-making, and advocacy of their child's needs. Through this network, parents can be informed of academic courses, work-based learning programs, and labor market opportunities via information sessions, workshops, one-on-one guidance, or even newsletters. For instance, this could clarify misconceptions concerning the skilled-trades pathways, and the costs of programs and postsecondary opportunities. These support networks can be responsive to different family backgrounds to ensure that parents can navigate systems long term and that their own needs of time, transportation, child care, or technology are addressed, too. The Detroit Parent Network is one such community-support organization that engages parents and offers them programs and resources around education and career, so parents can take part in, advocate for, and support their children in their educational journey.

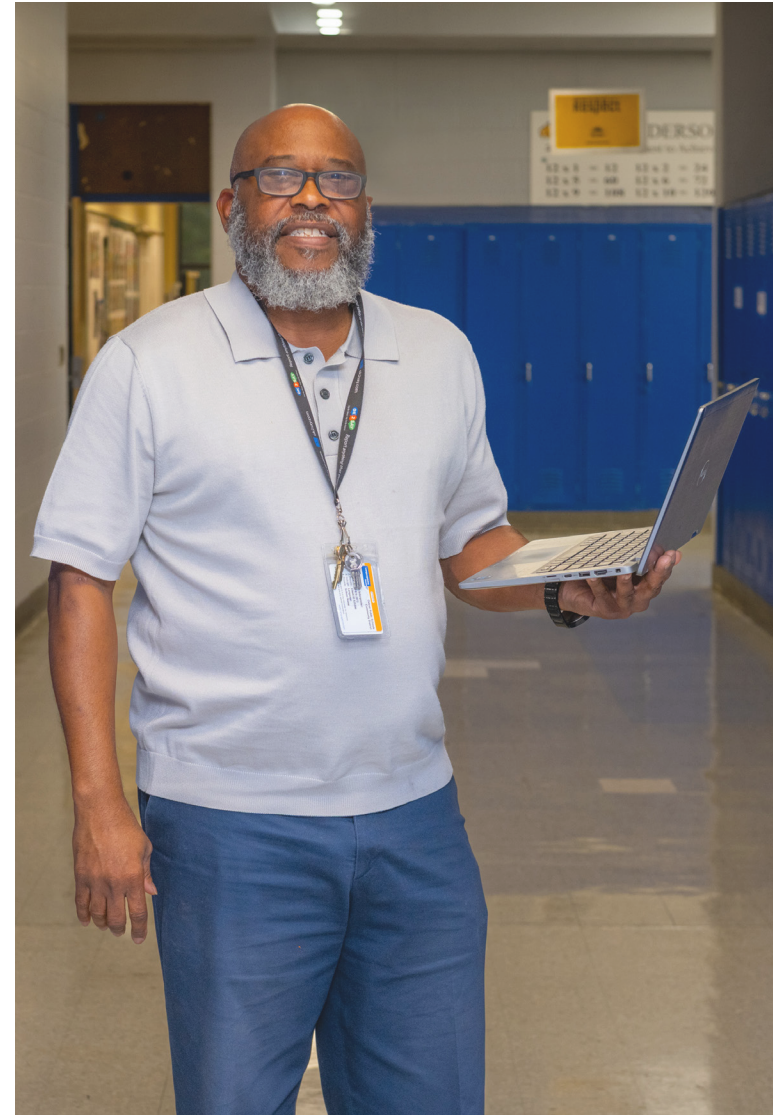
Actively involving parents and families can ensure that Detroit students and their learning is supported at home, as well, allowing them to explore career paths more confidently and increasingly participate in relevant opportunities.

RECOMMENDATIONS

3. Invest in building and growing mentorship pipelines and peer networks for youth.

Mentorship initiatives can provide consistent guidance and encouragement, and peer networks can offer youth a platform to make new connections. Both have a positive impact on a young person's growth, and their educational and socio-economic trajectory. These connections can also be valuable for young people who do not have consistent parental or family support at home. Approaches could include first understanding youth needs and then creating structured opportunities that connect youth with trusted mentors in the broader career-connected learning community. Mentors can engage with youth through internships, projects, community service, and career-focused activities. Peer networks can be established through school clubs, collaborative activities, sports, and alumni networks, as well, bringing together youth with shared interests and those on a similar path. Such connections can be reinforced long term in different ways even as students complete different educational and early career milestones.

Professional mentors and peer connections can help Detroit's young people see folks like themselves succeed in their fields of interest and move forward with the support and encouragement they need.



The following table describes how different partners within the career-connected learning ecosystem can provide leadership, assistance, and the means to move these recommendations forward.



Lead

Schools,
postsecondary
institutions

- Improve the use of online career navigation tools.
- Offer structured career advising.
- Establish parent networks and advisory groups.
- Establish alumni networks.



Support

Youth-serving
organizations

- Develop parent networks.
- Connect youth to trusted mentors.
- Help build peer and alumni networks.

Employers

- Provide youth mentorship.
- Offer career information and guidance.



Enable

State agencies,
philanthropic
partners,
other
intermediaries

- Adapt existing tools like Xello to the labor market.
- Improve student-counselor ratios and advising standards.
- Provide funding and financial support.



WORK-BASED LEARNING

Beyond career guidance, another essential component of preparing young people for postsecondary education and careers is work-based learning. It allows students to apply their classroom knowledge to real-world settings and supports them in developing relevant and transferable skills and credentials, as well as career confidence. For employers, this approach ensures that there is enough talent to fill open positions.

Though this component also includes career academies, dual enrollment, early-middle college and other similar models, which all prioritize direct work experience and/or college credit, the report leans in to describe Career and Technical Education (CTE) and Registered Apprenticeships (RA), as examples.



A DEEP DIVE INTO CAREER AND TECHNICAL EDUCATION (CTE) IN DPSCD

High-quality CTE programs integrate rigorous academics with progressively intensive technical skill building, work-based learning, leadership development, and opportunities to earn industry-recognized credentials. They rely on a strong alignment between K-12 schools, postsecondary institutions, and employers.

Research shows that participation in high-quality CTE programs improves academic outcomes and increases the likelihood of high school graduation, further education, and employment.^{xiii}

CTE offerings in DPSCD

In Michigan, high school CTE spans over 50 fields of study across 17 career clusters. In 2023-24, Detroit Public Schools Community District (DPSCD) offered 41 state-approved CTE programs in 24 fields of study, which can be grouped into eight major career clusters.⁵

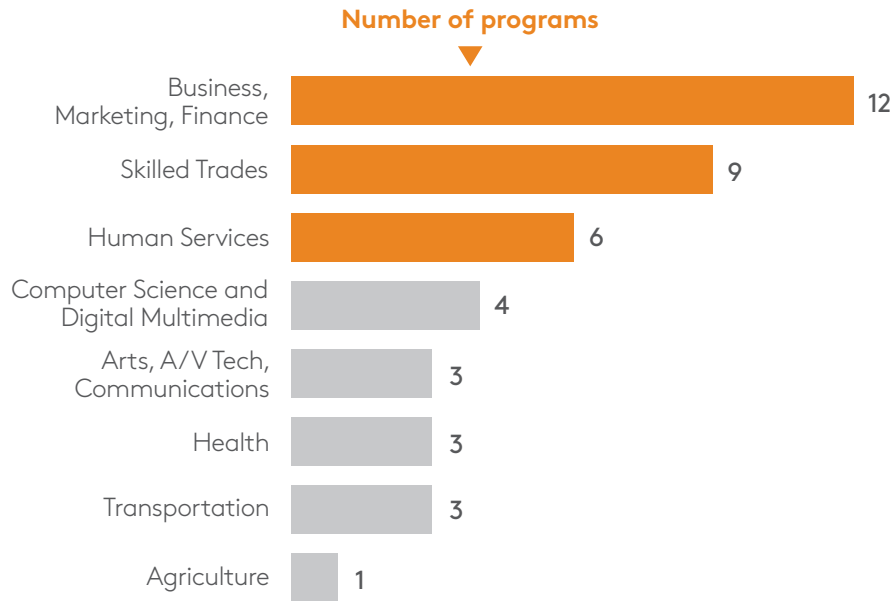
Career clusters	CTE programs
Business, Marketing, Finance	<ul style="list-style-type: none"> • Business Administration Management and Operation • Specialized Merchandising, Sales and Marketing • Finance and Financial Management Services
Human Services	<ul style="list-style-type: none"> • Cooking and Related Culinary Arts, General • Public Safety/Protective Services • Education General • Cosmetology
Skilled Trades	<ul style="list-style-type: none"> • Construction Trades • Welding, Brazing and Soldering • Electrical and Power Transmission Installation • Home Furnishings Equipment Installers and Consultants • Line Worker • Mechatronics • Heating, Air Conditioning, Ventilation and Refrigeration
Computer Science and Digital Multimedia	<ul style="list-style-type: none"> • Computer Systems Networking and Telecommunications • Digital/Multimedia and Information Resources
Arts, A/V Tech, Communications	<ul style="list-style-type: none"> • Radio & Television Broadcasting Technology • Graphics and Printing Technology and Communications
Health	<ul style="list-style-type: none"> • Health Sciences/Allied Health • Health Information/Medical Records Technology
Transportation	<ul style="list-style-type: none"> • Automobile Technician • Collision Repair Technician • Aeronautics/Aviation/Aerospace Science and Technology
Agriculture	<ul style="list-style-type: none"> • Applied Horticulture and Horticulture Operations

⁵These eight career clusters do not directly align with the Michigan Department of Education’s 17 career clusters, but classify the programs available in DPSCD in a simple and coherent way.

In 2023-24, the highest number of CTE programs in DPSCD were offered in Business, Marketing and Finance, followed by Skilled Trades and Human Services.

The Business, Marketing, and Finance career cluster offered the highest number of CTE programs, followed by the Skilled Trades and Human Services

Number of CTE programs offered by DPSCD per career cluster, 2023-24



Source: University of Michigan Youth Policy Lab analysis of Michigan CTEIS Reports

In total, 2,128 students were enrolled in these 41 CTE programs in 2023-24, representing about 15% of all ninth- to 12th-grade students in DPSCD’s 25⁶ high schools.

In addition to these formal state-approved CTE programs, DPSCD offers a variety of other career-related enrichment opportunities, including STEM and robotics clubs, career academies, and Jobs for Michigan’s Graduates (JMG) programs.^{xiv} Nearly all of the high schools (20 of 25) also have small learning communities run by a national nonprofit, the National Academy Foundation, called a NAF academy. They offer career-focused curricula in Finance, Information Technology (IT), Sports Marketing, Engineering, Robotics, Manufacturing, Health Science, Education, Law Enforcement, and several Arts specialties^{xv}. Most schools offer one or two NAF academies, and a small proportion of students within the school take part in them.

A note about charters and CTE programs: There is no central source of data about CTE opportunities in Detroit’s 26 public charter high schools. However, some charter schools do offer CTE programs⁷ across multiple career pathways, including Health Science, Business, Education, Cybersecurity, Entrepreneurship, Criminal Justice, IT, Engineering, Manufacturing, Culinary, Auto, Tech, Welding, Machining, Robotics, and Human Services

⁶Excluding the three Career and Technical Centers, one day-treatment facility, and two special-education schools that serve 18- to 26-year-olds.

⁷Based on information gathered from their websites and course catalogs, when available.

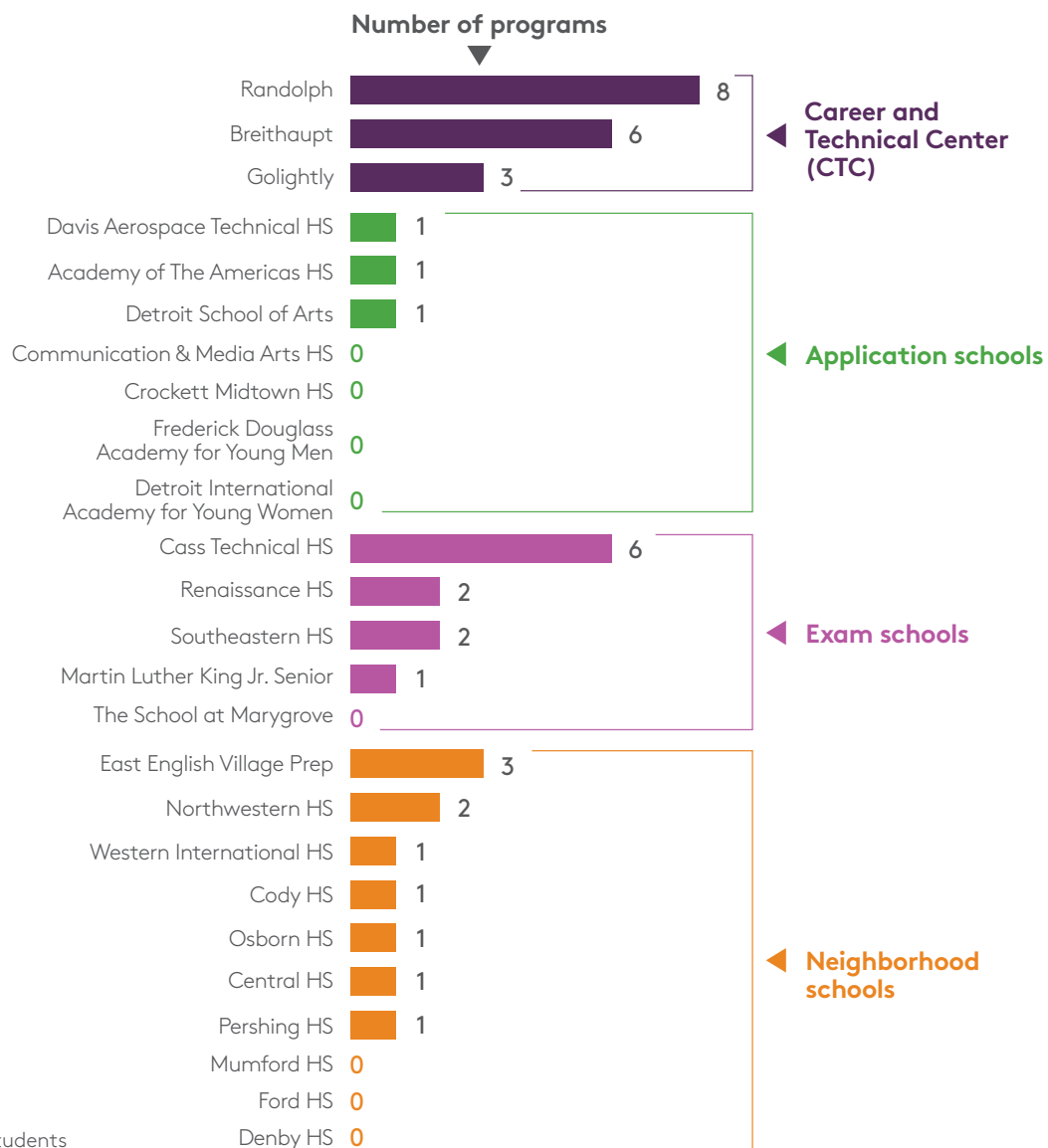
CTE program distribution

In 2023-24, DPSCD’s 41 CTE programs were offered in 17 locations. Nearly half were offered through one of the three Career and Technical Centers (CTCs) within DPSCD, while the others were offered across 14 of the district’s 25 high schools, including exam, application, and neighborhood schools.⁸

The exam schools tend to offer more CTE programs than the neighborhood or application schools. Cass Technical High School (Cass Tech) is an exam school and the largest of the DPSCD high schools. The school offers six CTE programs, therefore seeing more enrollment. On the other hand, some of the larger neighborhood schools offer only a single CTE program with limited enrollment, while others offer no on-site CTE programs. Students at such schools who want to take part in CTE must travel to the Career and Technical Centers (CTCs) from their own high school.

Many of the neighborhood schools have only one CTE program within the building

CTE program availability in DPSCD high schools, 2023-24



⁸ Exam schools offer rigorous career and college preparation courses and require students to take an entrance examination, while application schools also offer specialty programs, but admission is based on student records. Neighborhood schools require no application, and a seat is guaranteed for students within the school’s catchment area.

Source: University of Michigan Youth Policy Lab analysis of Michigan CTEIS Reports

Note: The chart excludes three alternative high schools that do not offer state-approved CTE programs.

The CTCs and the exam schools have a wider selection of CTE offerings compared to the neighborhood and application schools. In 2023-24, all the Skilled Trades, Agriculture, Culinary, Cosmetology, and Transportation programs were offered only at the CTCs. Meanwhile, all the Finance programs, most of the Business Administration programs, and most of the Computer Science and Digital Multimedia programs were offered in the four exam schools.

The programs offered at the exam schools also tend to be bigger when compared with those at neighborhood schools. There were 132 students in Cass Tech's Marketing program, while the Marketing programs in the neighborhood schools, Northwestern and East English Village Prep, have much lower enrollment—26 and 21 students, respectively.



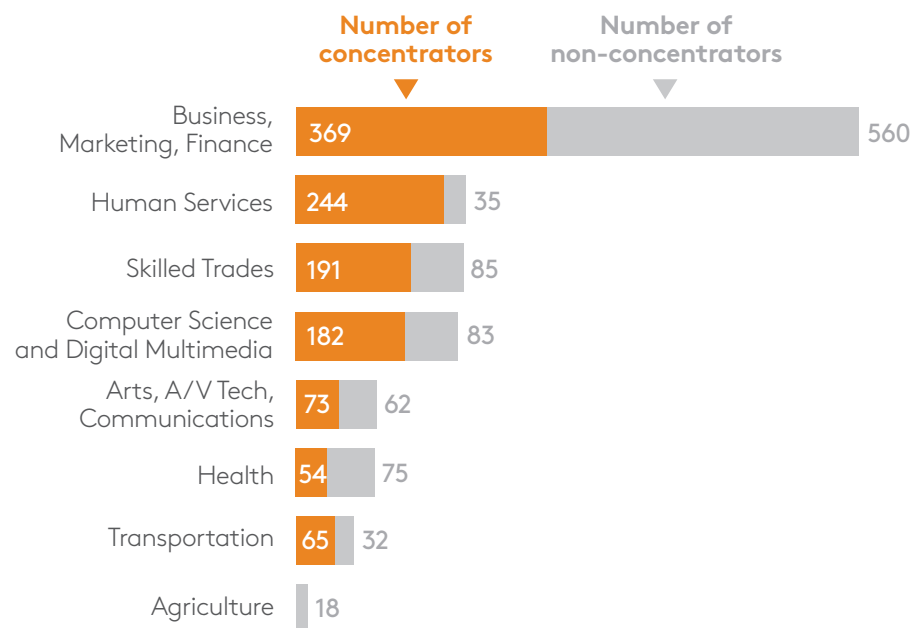
CTE enrollment and concentration rates

In 2023-24, the Business, Marketing, and Finance cluster had the highest number of programs, and the largest student enrollment, with 929 enrollees.⁹ However, fewer than half the participating students completed the sequence of courses required to become concentrators¹⁰, suggesting that many students may have taken these courses as electives rather than to develop advanced skills in a career path, or were unable to participate due to a variety of logistical barriers. Overall, CTE concentrators have better educational and career outcomes, including a 95% on-time high school graduation rate.^{xvi}

On the other hand, 87% of students in the Human Services cluster reached concentrator status, compared to nearly 70% in Skilled Trades and Computer Science and Digital Multimedia, and 42% in Health. It is important to note that these programs had much lower overall enrollment (between 100 and 300 students), which makes it easier to have high concentration rates.

Business, Marketing, and Finance CTE programs had the highest enrollment, but only 40% of enrollees completed a sequence of courses in the pathway

Number of CTE concentrators and non-concentrators by career cluster, 2023-24



Source: University of Michigan Youth Policy Lab analysis of Michigan CTEIS Reports

⁹ For more information on CTE programs, enrollment, and credentials, refer to Table I of the Appendix.

¹⁰ Students can take varying numbers of CTE courses, either across different fields of study or within the same CTE program. Those who complete a sequence of courses within the same field of study are called CTE concentrators.

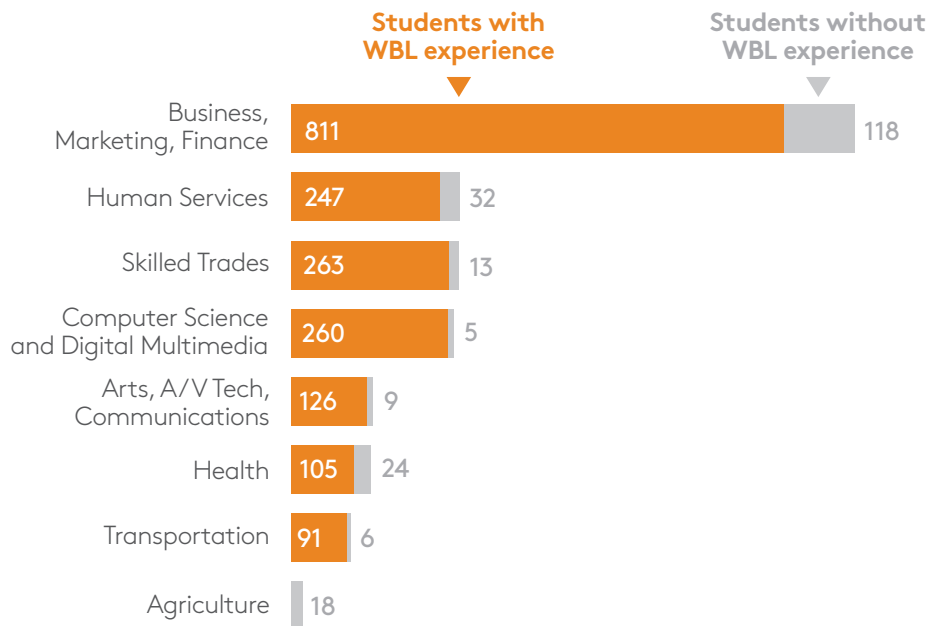
CTEs and work-based learning

All state-approved CTE programs are designed to include a range of work-based learning activities, from awareness activities like field trips and career fairs to more in-depth preparation and training experiences like job shadowing, school-based enterprises, internships, practicum, and youth apprenticeships.

Participation in these work-based learning activities is high among nearly all of DPSCD’s CTE programs.

Within each career cluster, a high share of students participate in at least one work-based learning (WBL) event

Work-based learning participation in CTE programs by career cluster, 2023-24



Source: University of Michigan Youth Policy Lab analysis of Michigan CTEIS Reports

CTE credential attainment

State-approved¹¹ and industry-recognized credentials are essential for a CTE program to hold value and signal employability in the labor market.

Overall, the total number of state-approved credentials reported¹² across all DPSCD’s CTE programs grew substantially, from 557 in 2023-24 to 873 in 2024-25.

Ninety-two percent (514) of the credentials earned in 2023-24 were reported in the Business, Marketing and Finance, and Computer Science and Digital Multimedia clusters.

In the same year, for some of the other clusters, credential attainment was notably low, despite enrollment. The Human Services cluster reported no state-approved credentials, even though all four programs of study were fully approved and enrolled more than 250 students. Similarly, the Health cluster reported just one credential, despite enrolling over 100 students. Within the Skilled Trades cluster, the Construction Trades and Welding, Brazing and Soldering programs, in particular, reported no credentials at all, despite multiple program offerings and together enrolling over 150 students. The three Transportation programs awarded 25 credentials in total.

Reporting is not yet required for the Agriculture or Arts, A/V Tech & Communications programs.

¹¹ The Michigan Department of Education’s Office of Career and Technical Education reviews potential credentials to determine which meet the criteria to become state-approved for each CTE program of study. Some CTE fields of study have not been through the credential approval process yet, so they are not required to report credential attainment among their students.

¹² Publicly available data currently report the number of credentials earned in each program but not an unduplicated count of students who earn them. This means a student who earns three credentials is counted three times, so the percentage of students who complete a credential is not available.

CTE funding

CTE programs in Detroit receive funding from multiple sources, including federal funding through the Carl D. Perkins Career and Technical Education Act (Perkins V), state school aid budget, district spending, special grants, and philanthropic partnerships. These funds support program coordination, improvement, and implementation.^{xvii} The district is also using federal COVID-19 relief funds through the \$700 million Facilities Master Plan to modernize its school infrastructure and expand access to career-connected learning.^{xviii}

A major challenge for Detroit is that CTE programs are not funded evenly across the state. Most counties in Michigan levy an additional property tax, a vocational millage, specifically to provide funding for local CTE programs. Because the real estate tax base and the exact millage rates vary greatly across counties, these taxes generate anywhere between \$853,000 and \$38.5 million in additional local CTE funding each year.^{xix}

Currently, Wayne RESA, or Regional Educational Service Agency, is one of only 14 intermediate school districts/RESAs in the state without a vocational millage. In November 2025, voters in neighboring Washtenaw County approved a new vocational millage that will raise around \$25 million annually for CTE and related programming across Washtenaw's nine public school districts.^{xx}

Detroit's ability to leverage such a property tax-based revenue to innovate CTE is constrained by its long-standing structural tax realities. Its lower tax base limits the viability of generating CTE funds in the same way some suburban and affluent districts can. Despite state efforts, Detroit schools continue to face funding disparities as schools aim to meet growing student and industry demands, affecting program resources, staffing, access, technology, and equipment.

Such funding gaps cannot be closed by the school district alone and will require regional and state-level approaches that ensure Detroit students have comparable access to career-connected learning resources.

CTE PROGRAM ALIGNMENT WITH THE REGIONAL LABOR MARKET

The strength of a career-connected learning program lies in how well it prepares students in developing relevant and transferable skills and credentials that they can build on, and whether the completion of the program leads them to jobs in the region that are available and pay well.

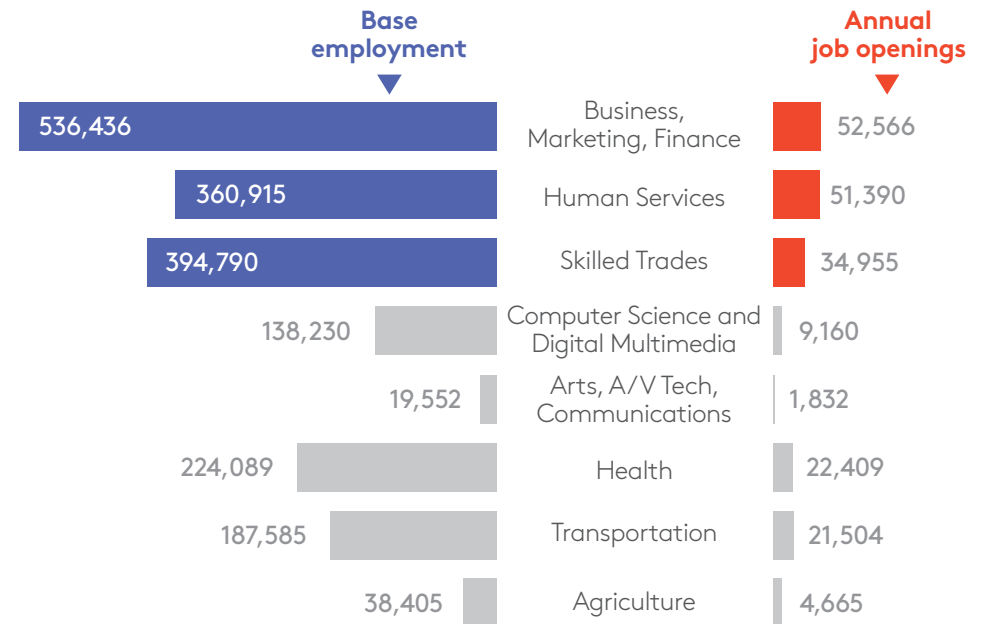
The following section compares DPSCD’s CTE clusters and enrollment numbers with regional labor market demand and wage data to assess how well these programs align with available and good-paying jobs.

Base employment and annual job openings

The latest labor market data for the Detroit Metro Prosperity Region suggests that, as of 2022, jobs in the Business, Marketing and Finance, Human Services and Skilled Trades clusters have the highest total base employment levels and annual job openings.¹³

Business, Marketing and Finance, Human Services and Skilled Trades have the highest total base employment and annual job openings in the regional labor market

Base employment (2022) and annual job openings (2022-32) by cluster in the Detroit Metro Prosperity Region



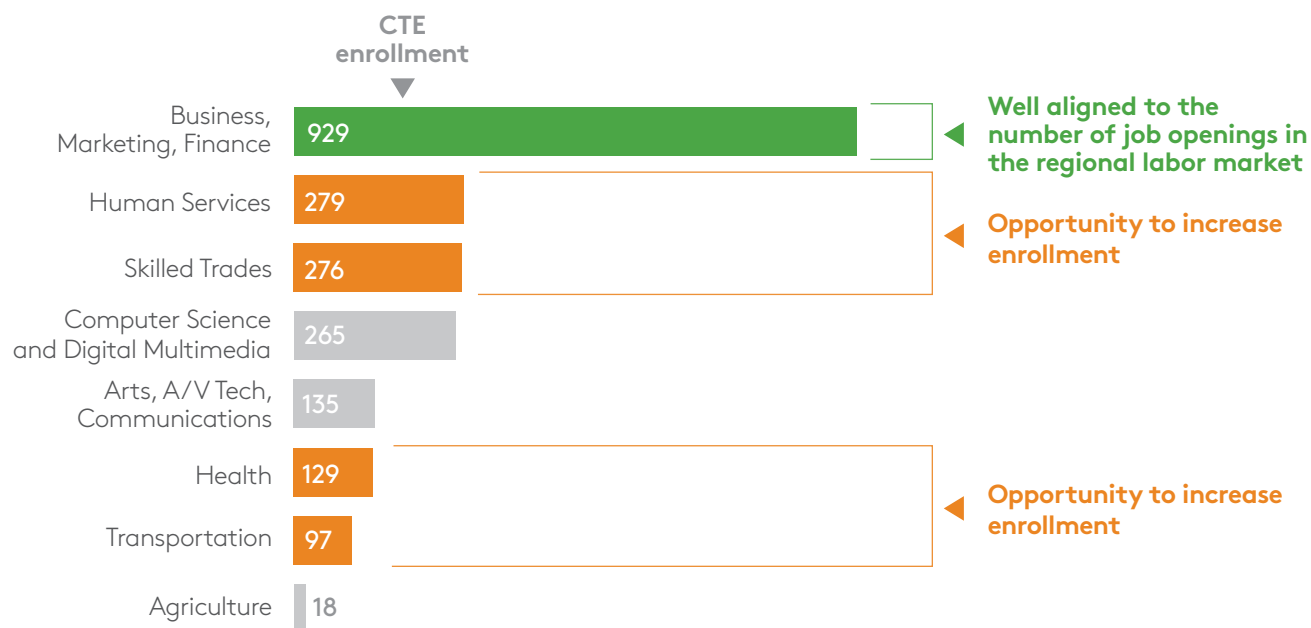
Source: University of Michigan Youth Policy Lab analysis of Michigan Department of Technology, Management & Budget (DTMB) occupational projections for the Detroit Metro Prosperity Region

¹³ The Department of Technology, Management & Budget/Michigan Center for Data Analytics (DTMB/MCDA) Long-Term Occupational Employment Projections (2022-32) for the Detroit Metro Prosperity Region include 829 occupations. For occupations that did not report base employment or job openings, a proxy value of 1 was imputed.

Comparing CTE enrollment and annual job openings shows that high participation in the Business, Marketing and Finance programs is well aligned with related jobs in the Detroit Metro Prosperity Region, but there is potential to increase enrollment in several other clusters, specifically Human Services, Skilled Trades, Health, and Transportation.

Human Services, Skilled Trades, Health, and Transportation clusters have over 20,000 annual job openings in the region and represent a clear opportunity to increase CTE enrollment.

CTE enrollment, 2023-24



Source: University of Michigan Youth Policy Lab analysis of Michigan CTEIS Reports

DPSCD could strengthen alignment by expanding enrollment in current CTE programs and by introducing new programs in fields of study that are offered elsewhere in Michigan but not currently in Detroit. Prioritizing where to expand CTE programs should consider not only the demand for people, but also the associated wages.

CTE programs that could either be expanded or introduced within DPSCD to better align with the demands of the regional labor market

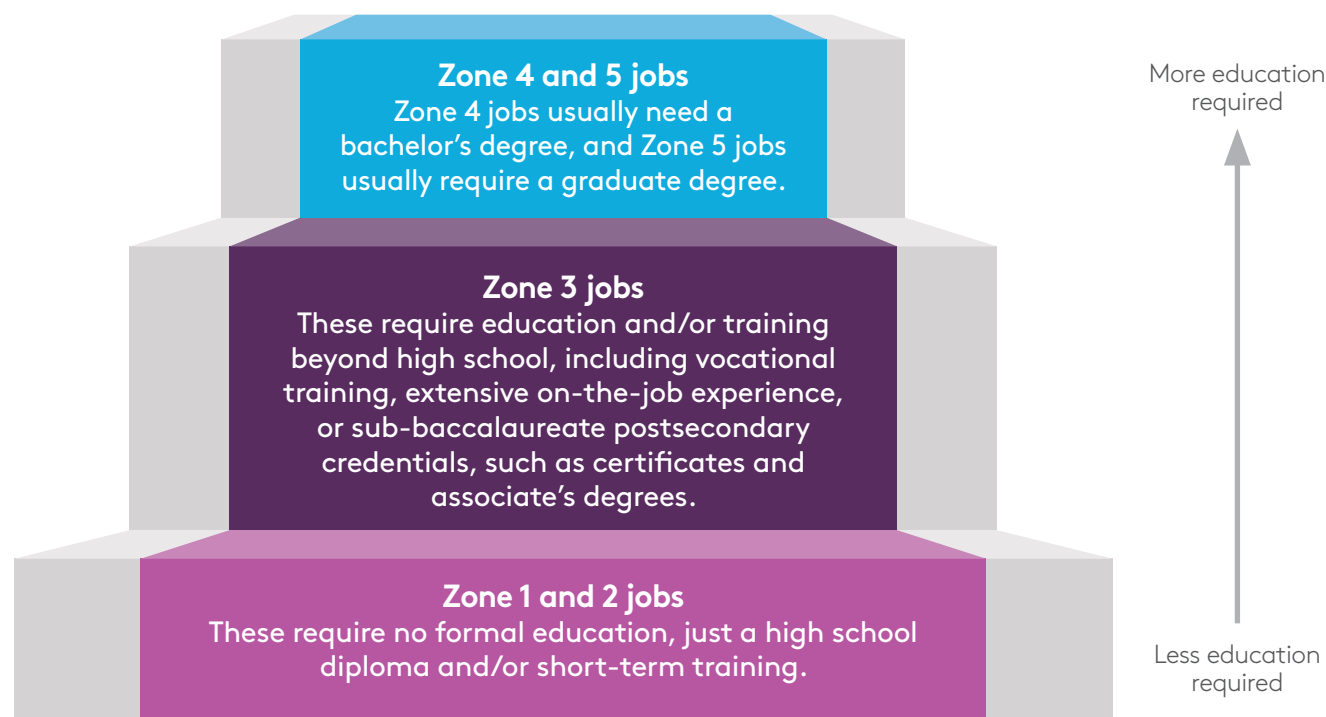
	Number of CTE programs in DPSCD (2023-24)	Enrollment (2023-24)	Annual job openings
Human Services	6	279	51,390
Cooking and Related Culinary Arts, General	2	194	27,200
Education General	2	28	11,146
Hospitality Administration/Management	[none]	-	8,018
Public Safety/Protective Services	1	31	3,720
Skilled Trades	9	276	34,955
Construction Trades	1	86	15,128
Machine Tool Technology/Machinist	[none]	-	5,883
Engineering Technology	[none]	-	3,654
Electrical and Power Transmission Installation	1	29	2,513
Electrical/Electronics Equipment Installation and Repair	[none]	-	2,144
Health	3	129	22,409
Health Sciences/Allied Health	2	120	18,783
Health Information/Medical Records Technology	1	9	1,965
Transportation	3	97	21,504
Medium/Heavy Truck Technician	[none]	-	6,470
Automobile Technician	1	41	1,236

Since these data were collected, DPSCD has started an Engineering Technology program. In the fall of 2026, DPSCD is looking to introduce four to five new Health programs and a Machine Tool Technology/Machinist program. They are also looking to expand the Automobile Technician program in the future.

Source: University of Michigan Youth Policy Lab analysis of Michigan CTE reports and DTMB occupational projections for the Detroit Metro Prosperity Region

Annual job openings by job zone

Analyzing only CTE enrollment against raw numbers for base employment and annual job openings is not enough—as not all jobs are equal. The federal Occupational Information Network (O*NET) classifies all jobs into five zones based on the amount of education, on-the-job training, and related experience most people in the occupation have.^{xxi}

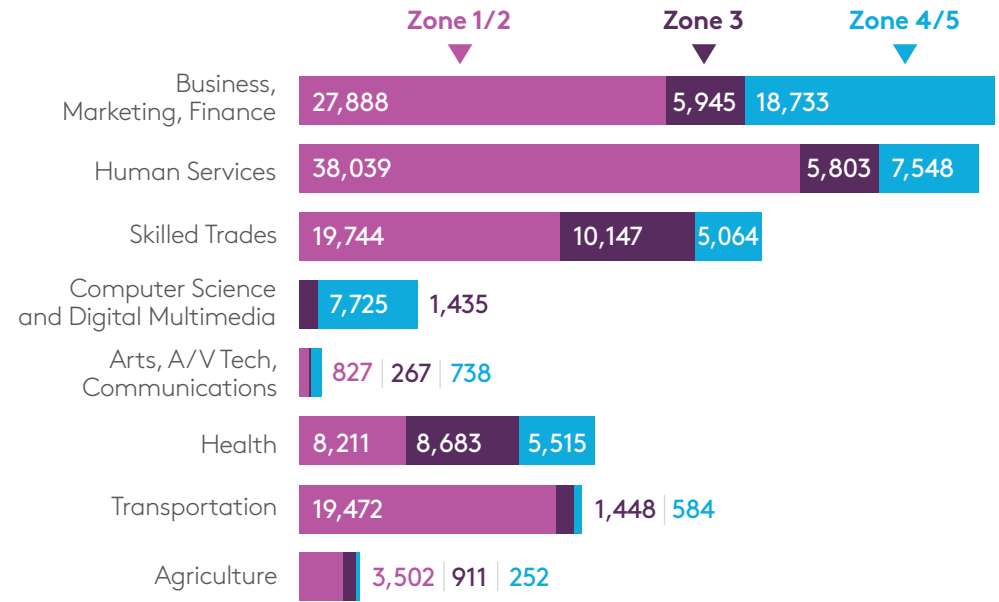


Wages also tend to be higher for occupations in higher zones, though there is a good deal of overlap in wage distributions.

Disaggregating annual job openings by job zone¹⁴ in Detroit shows that, while Business, Marketing, and Finance and Human Services have the highest number of total job openings, most of these are Zone 1 or 2 jobs. These jobs are typically accessible but offer lower wages and limited upward mobility. Only 11% of jobs in both these clusters are Zone 3 jobs—5,945 in Business, Marketing, and Finance and 5,803 in Human Services. On the other hand, Skilled Trades and Health have the highest Zone 3 job openings, 29% (10,147) and 39% (8,683), respectively, indicating that prioritizing CTE expansion in these clusters has the highest potential to connect students to good-paying jobs.

The highest number of Zone 3 job openings are in the Skilled Trades and Health career clusters

Annual job openings by job zone in the Detroit Metro Prosperity Region, 2022-32



Source: University of Michigan Youth Policy Lab analysis of DTMB occupational projections for the Detroit Metro Prosperity Region

CTE programs are designed to prepare students for Zone 3 jobs that require relevant training and/or industry-recognized credentials, and can support career advancement with more experience or postsecondary education.

¹⁴ For more information on annual job openings across all Michigan’s CTE program pathways, refer to Table II of the Appendix.

Median wages by job zone

The median wages¹⁵ for jobs in Zone 3 in the Detroit Metro Prosperity Region range from a low of \$15 per hour to a high of \$72 per hour. Though there is a wide overlap in ranges across job zones¹⁶, it is at Zone 3 that most clusters strongly begin to approach and, in some cases, even cross the middle-class wage threshold of \$31 per hour.¹⁷

Across all career clusters, only 5% of jobs in Zone 1 and 2 meet or exceed this threshold, compared to 26% of jobs in Zone 3 and 58% of jobs in Zone 4 and 5. Zone 3 thus represents a pivotal threshold for economic mobility. By equipping students with industry-aligned training, credentials, and experiences, CTE programs can position students to access better-paying roles.

Median hourly wage ranges for occupations in the Detroit Metro Prosperity Region by CTE career cluster and their progression across the different job zone categories

Career cluster	Zone 1/2	Zone 3	Zone 4/5
Business, Marketing, Finance	\$14-\$37	\$21-\$50	\$22-\$76
Human Services	\$13-\$48	\$15-\$47	\$17-\$61
Skilled Trades	\$17-\$52	\$18-\$58	\$30-\$81
Computer Science and Digital Multimedia	[none]	\$29-\$50	\$28-\$80
Arts, A/V Tech, Communications	\$11-\$30	\$22-\$49	\$17-\$44
Health	\$15-\$25	\$17-\$48	\$23-\$111
Transportation	\$16-\$35	\$18-\$72	\$49-\$65
Agriculture	\$15-\$29	\$22-\$50	\$23-\$73

Source: University of Michigan Youth Policy Lab analysis of Occupational Employment and Wage Statistics (OEWS) data for annual job openings in the Detroit Metro Prosperity Region.

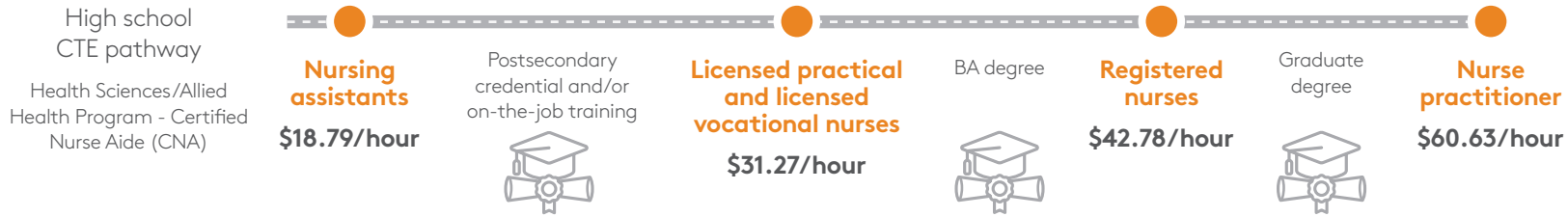
¹⁵ The Occupational Employment and Wage Statistics (OEWS) data, sourced for the Detroit-Warren-Dearborn region, is missing wage data for many occupations across the five job zones and, for some, the wage ranges are capped at \$115 per hour.

¹⁶ A small subset of occupations within each cluster have relatively lower or higher wages than the others, which skews the overall wage range for the job zone in one or both directions.

¹⁷ In 2024, the national median household income was \$81,604. The “middle-class” wage calculation considers the 80% threshold, calculated for a person working 40 hours/week for 52 weeks.

For students working while in college, CTE skills and credentials can help them secure Zone 3 jobs and earn higher wages than they would have otherwise. With more education and experience, they can progress along a career ladder, as illustrated by the following examples from the Health and Skilled Trades clusters.

Sample career pathway in Nursing (Health)



Source: University of Michigan Youth Policy Lab analysis of OEWS data for the Detroit Metro Prosperity Region

Sample career pathway in Construction (Skilled Trades)



Source: University of Michigan Youth Policy Lab analysis of OEWS data for the Detroit Metro Prosperity Region

However, it is also important to note that such progression and related wage gains are not uniform across all occupations, or without challenges. Advancing from one level to another depends on a variety of factors, including employer recognition of credentials and other licensure and experience requirements.

Overall, the findings show partial alignment between Detroit's CTE programs and regional workforce needs, alongside substantial opportunities to expand high-demand programs and strengthen enrollment in the Human Services, Skilled Trades, Health, and Transportation clusters.

Access to CTE programs

Access not only determines whether students enroll in CTE, but also which programs they enter.

- **The distribution of CTE programs and pathways is uneven across the schools.**

In 2023-24, eight of DPSCD's 25 high schools did not offer any on-site CTE programs, and another nine schools offered only one program. This means that students are being asked to choose a career track when they choose a high school. Students from the exam, neighborhood, and application schools can attend programs at the Career and Technical Centers (CTCs), but they cannot enroll in CTE programs at other schools. They can, however, opt for other pathways, such as dual enrollment through their school's partnerships with community colleges and universities.

- **Access is the primary factor driving CTE participation.**

Student participation in CTE classes is largely influenced by whether programs are offered at their own high school versus an off-site location.^{xxii} When CTE programs require travel to an off-site location during the school day, participation is affected by logistical barriers, such as transportation constraints, scheduling conflicts, and lost instructional time. However, schools are also working to reduce these barriers, including providing transportation so students can attend the CTE programs offered outside of their own school.

- **Some programs require dedicated infrastructure and can be offered at only select locations equipped to support them.**

Deepening the access barrier is the fact that some programs, like those in Computer Science and Digital Multimedia or Business, Marketing and Finance, are relatively easy to offer in regular classroom settings, while others, like programs in Health, Transportation, and Skilled Trades, often require separate dedicated space and specialized equipment that is not feasible to provide in every school.

- **CTE programs offer limited flexibility to switch programs and pivot.**

Focus group participants noted that they had limited flexibility to change direction as they moved along a career pathway in their CTE track if their initial choice is not a good fit, further restricting options. However, stakeholders note that the school district is making efforts to raise awareness of CTE programs, pathways, their benefits, and other alternatives, such as dual enrollment.

This highlights the opportunity to increase CTE program offerings, related funding, and further improve coordination and resource allocation, so that student participation in these programs is not decided by geography or logistical constraints.



Access to CTE credentials

State-approved and industry-recognized credentials signal career-readiness and workforce value to employers.

- **Current data are lacking important credential completion information.**

Students enrolled in CTE programs may not earn credentials for several reasons—some may choose not to take certification exams, some may not complete the required hours, some may not pass the exam, and others may be delayed. Publicly available data do not show how many students try to earn credentials but do not obtain them. Looking at which factors lead to low credential attainment rates is critical for understanding how to direct resources.

- **Reporting and administrative challenges contribute to low credential counts.**

Reported credentials are often low or zero for a variety of reasons, even when the district has the capacity to offer them. On one hand, teachers must apply in time for the credentials so that they are available to students. And on the other hand, students must register for and take the specific state-approved credential exam, as other credentials are not counted. Further, scheduling and state board testing delays also affect reporting.

- **Credential costs and resource requirements create significant barriers.**

For many districts, including Detroit, sustaining credential-bearing programs requires adequate funding, qualified instructors, and committed industry partnerships. Districts typically cover the costs of preparation materials, exam fees, and other related expenses, which vary widely by credential, from less than \$50 to over a few hundred dollars per credential. These costs, including equipment and instructor credentials, can be prohibitive, especially for programs that serve larger student populations. Even lower cost credentials can quickly become expensive at scale. The ASE Automotive Tech credentials, for instance, cost just over \$40 each, but with more than 70 students enrolled, annual expenses exceed \$3,000 for students to earn just one of the many potential ASE credentials.

- **Rising credential costs increases financial pressure on the district.**

While the district currently funds all the state-approved credentials offered through the CTE programs, the annual costs for these are expected to increase from \$55,000 to \$80,000 in the 2026-27 academic year. Restrictions on vendor procurement further increase financial pressure.

There is an opportunity to address such gaps in credential attainment and reporting through targeted interventions, state funding, and employer partnerships. This can ensure that every CTE student has access to meaningful credential opportunities, regardless of the pathway they select.

AN OVERVIEW OF REGISTERED APPRENTICESHIPS (RA) IN THE DETROIT METRO PROSPERITY REGION

Apprenticeship programs are designed to help students build skills and gain industry-recognized credentials, while allowing them to connect with employers and earn money and school/college credit.

In Detroit, paid apprenticeship programs are offered through a number of entities – including, but not limited to, Detroit at Work, the Detroit Registered Apprenticeship Program (DRAP), ReBuild Detroit (SER Metro Detroit), community colleges, and Focus: HOPE, as well as some union-led initiatives. Though most programs are offered for jobs in the Skilled Trades, some are also offered for Health Care, IT, Transportation, and Manufacturing.

Local spotlight: YouthBuild Programs

Detroit at Work's YouthBuild program is a pre-apprenticeship program in Construction, helping participants earn nationally recognized credentials, develop career skills, and access jobs, internships, and apprenticeships.

SER Metro-Detroit's YouthBuild program offers youths two career paths, in Construction Trades and Health Care. Youth in the Construction pathway explore 22 trades, gain real-world carpentry experience, and earn industry credentials. The Health Care program enrollees work towards state certifications and learn a range of related technical skills.

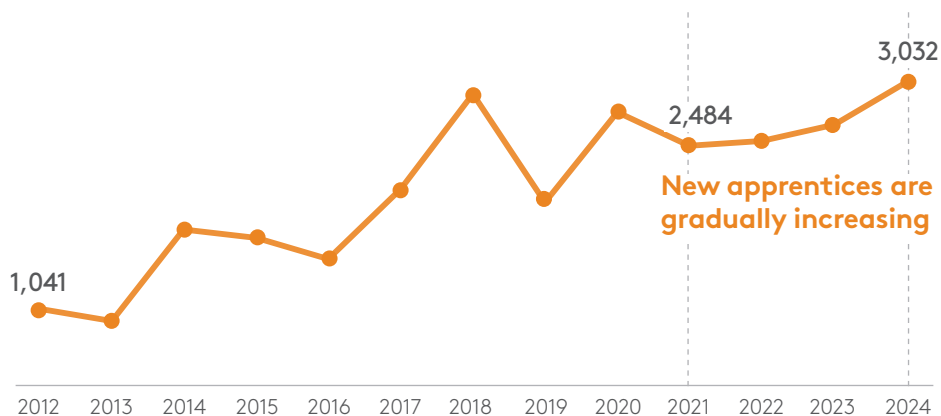
MiSide also offers a YouthBuild program for training in Construction and other Skilled Trades.

Active Registered Apprenticeship programs and apprentices

In 2024, the Detroit Metro Prosperity Region had 263 active¹⁸ Registered Apprenticeship (RA) programs, accounting for the second greatest share of RA programs in Michigan, at 23%.^{xxiii} These programs engaged more than 7,920 active apprentices—the highest in the state, at 39%.^{xxiv} Efforts are ongoing to increase the representation of 16- to 18-year-olds. However, only 0.4% of active apprentices represented this demographic in 2024.^{xxv} Despite this, data show that RAs are a popular work-based learning pathway.

The region registered a record number of new apprentices, increasing from 2,484 in 2021 to 3,032 in 2024.^{xxvi} The slight downtrend in the number of completers in recent years is because of lower pandemic enrollment. The completion rate in 2024 was only 51%, however.^{xxvii} This suggests that apprentices face barriers to program completion.

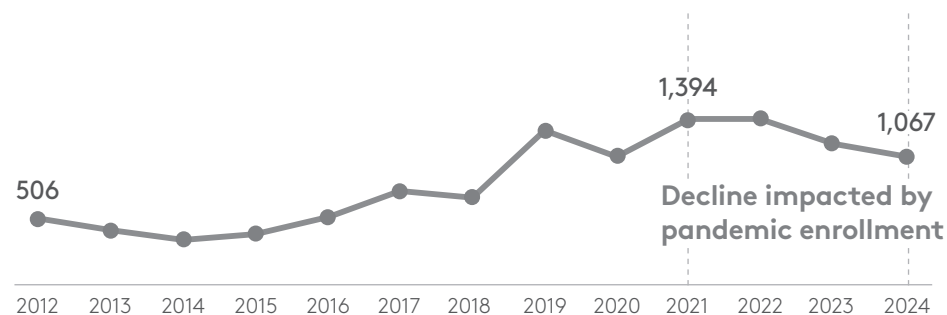
The number of new apprentices in the region has been gradually increasing since 2021, showing a positive trend
 Number of new apprentices, Detroit Metro Prosperity Region, 2012-24



Source: Registered Apprenticeship Michigan Dashboard

The number of completers in the region declined since 2021, directly relating to the number of new apprentices enrolled in the earlier years

Number of completers, Detroit Metro Prosperity Region, 2012-24



Source: Registered Apprenticeship Michigan Dashboard

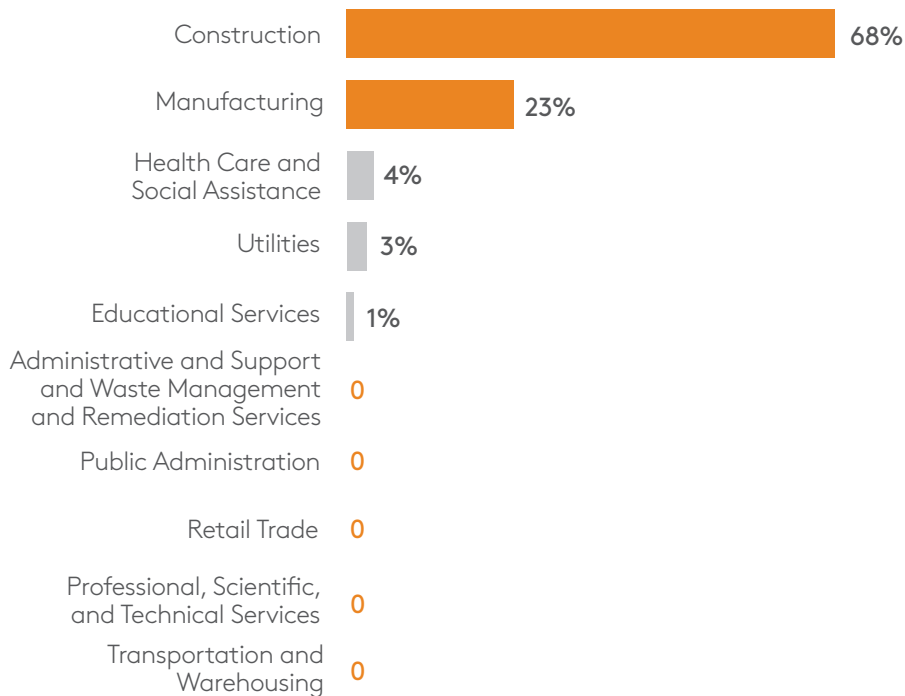
¹⁸ “Active” programs refer to programs that are registered, suspended, or reinstated. The same condition is also applicable for “active” apprentices.

Active apprentices by industry and occupation

A large number of active apprentices in the region are in traditional Registered Apprenticeship (RA) industries—Construction (68%) and Manufacturing (23%). Only 4% are in Health Care and Social Assistance, 3% in Utilities, and 1% in Educational Services,^{xxviii} which are some of the nontraditional RA industries.

The Construction and Manufacturing industries have the highest share of active apprentices in the region

Share of active apprentices by industry, Detroit Metro Prosperity Region, 2024



Source: Registered Apprenticeship Michigan Dashboard

By occupation, a majority of active apprentices in the region are training to be carpenters (22%) and electricians (18%).^{xxix} In the past decade, bringing RAs into nontraditional industries has been a key strategy to ensure that people can access a wider range of careers through this pathway.

Registered Apprenticeship outcomes

In terms of post-apprenticeship completion, the region saw very favorable employment outcomes—a 94% employment rate, with RAs in the Utilities industry having the highest median wage rate one year after completion, \$94,360.^{xxx} This indicates that RAs in nontraditional sectors are promising, too, and can lead to well-paying jobs.

Overall, the region has a high number of active programs and is increasingly registering new apprentices. Still, there is an opportunity to scale enrollment in nontraditional industries and increase the representation of youth, especially those 16 to 18 years old, in these programs. Addressing barriers to participation and completion can lead to promising long-term employment outcomes, as well.

Data and information systems

Evaluating the success of work-based learning in Detroit requires comprehensive data on program availability, enrollment, and student outcomes.

- **Citywide data on other models of work-based learning is not publicly and centrally available.**

The Michigan Department of Education closely monitors the formal state-approved CTE programs, and data are available in several publicly available reports. Districtwide data on other models—such as career academies, charter school CTE programs, local internships, trade-school programs, citywide apprenticeships, and dual enrollment—remains limited due to the lack of central reporting requirements.

- **The CTE follow-up survey captures the outcomes of only a narrow subset of students.**

The Career and Technical Education Information System (CTEIS) reports findings on postsecondary education and employment outcomes of CTE concentrators to inform program improvement. However, the survey is limited to students who reached concentrator status in a specific pathway and captures outcomes only six months after high school. Though these data are valuable for assessing immediate placement, they do not track students over time, and many students' outcomes may be excluded.

- **Stronger data infrastructure is needed to link broader education and workforce outcomes.**

The state lacks a comprehensive system to link K-12, postsecondary, and employment records to map and analyze long-term student trajectories. Emerging efforts to link education and workforce data in Michigan may offer new opportunities to analyze these pathways more holistically.

Addressing these data gaps offers a chance to better understand programs and student outcomes. It can provide greater clarity on program availability, student engagement, and the extent to which these experiences contribute to positive outcomes for young people.

Developing professional and life skills

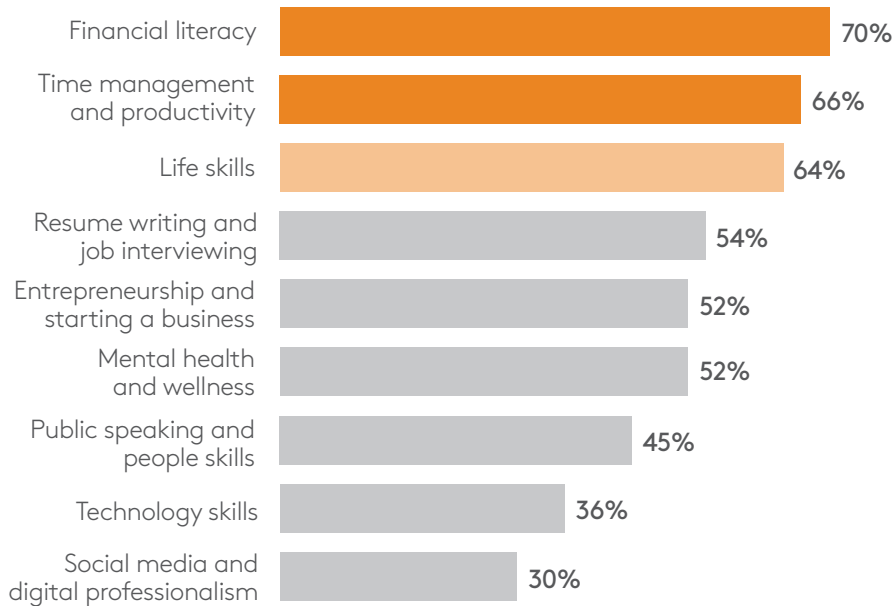
Job-specific skills, durable skills, and general life skills are foundational to personal and professional growth.

- **Youth seek stronger soft-skill development but lack consistent exposure and practice.**

Many young people struggle to build essential skills without structured opportunities to practice them. While survey respondents feel confident working in a team, using common computer tools and being self-motivated, they seek more practical, real-world preparation in schools and through training or youth programs to improve their financial capabilities, self-management techniques, and resume writing skills.

Youth desire more structured training on practical skills—like financial literacy, time management and productivity—and life skills

What classes did you wish schools/training/youth programs offered?



Source: DFC Youth Survey, 2025

Note: Youth could select more than one response for this question. Percentages show the share of respondents who selected each option. (83 respondents).

Schools are perceived as not preparing students enough for life after high school.

Youths in the focus groups reported gaps in preparation for post-high school realities, including practical knowledge, such as the importance of how a driver’s license can expand access to internships and jobs. These gaps reinforce the need for real-world learning in high school.

Youth are proactively building skills but encounter structural barriers.

Youth are actively engaging in clubs, certification programs, online training, and networking events—such as student government and campus media networks—to develop confidence and competencies. Even so, barriers like limited academic preparation and uneven access to opportunities slow their progress. Apprenticeship students reported peers dropping out due to insufficient math and science preparation, underscoring the need for foundational support early on and throughout high school.

Employer expectations put emphasis on foundational and transferable skills.

Roundtable participants shared that employers are placing more value on skills, curiosity, attitude, and adaptability than just on direct experience. Digital literacy and strong science and math foundations are seen as especially critical to a changing economy.

These insights point to an opportunity to align skill-building efforts with both youth needs and employer expectations, while expanding access to targeted and flexible learning experiences, both inside and outside of schools.

Scaling hands-on learning experiences

A consistent theme across focus group participants was the desire for hands-on learning experiences that directly support skill development.

- **Youth desire intentional and experiential opportunities to develop in-demand skills.**

Young people emphasized the need for skill-development programs that also help discover interests and career motivations. Youth find volunteering, internships, and mentorship activities practical and valuable. Trade students in particular appreciated mentorship and professional exposure through programs offered by employers, the city, union groups, and other training institutions, too, although, their experiences varied widely.

- **Partnerships in the ecosystem exist but lack coordination and strategic alignment.**

Roundtable participants shared that, while partnerships among schools, postsecondary institutions, community organizations, and employers exist, efforts across the talent pipeline are often disconnected, with many organizations doing similar work in silos. Employer partnerships tend to operate school-to-school or through intermediaries and are making efforts to better understand student needs.

- **Stronger, earlier, and more aligned industry engagement is needed.**

Roundtable participants emphasized the need for a coordinated strategy to engage industry partners to shape programs and opportunities—not only in high school, but earlier. They also advocate for school programs and investment to align on where the workforce is expanding.

These insights signal an opportunity to understand and scale successful employer-school partnerships and expand opportunities that bridge gaps in training and real-world application.

Navigating access barriers

Despite strong motivation, young people face persistent barriers that limit their participation in learning experiences and career advancement.

- **Administrative and communication barriers reduce access and participation.**

High school students described internships as difficult to navigate, citing excessive paperwork, unclear processes, and limited guidance. Some perceived that entry to industry-aligned clubs or programs at their high schools depended on personal connections. College-going youth cited challenges in accessing city-sponsored programs and receiving follow-up after outreach. They navigated opportunities more easily but noted limited offerings. In addition, time constraints, academic schedules, and requirements for prior experience further hinder their participation. On the other hand, some apprenticeship and trade students in the focus groups noted improved communication and professionalism from program advocates and workforce partners. Others faced disruptions due to weak communication, mismatched opportunities, or slow responses.

- **Systemic barriers limit job opportunities.**

Focus group participants noted issues such as background checks narrowing employment options, highlighting a need for alternative pathways to stay engaged.

- **Transportation barriers create employment instability.**

Youth note that unreliable transit is a major obstacle and prevents some from applying for or maintaining employment.

- **Competing responsibilities and financial stress limit engagement in programs.**

Apprenticeship and trade students shared that family obligations, time constraints, financial stress, inconsistent support, and procrastination as barriers that complicate their ability to fully engage in programs.

These conversations highlight the need for more intentional approaches to ensure greater consistency in youth experiences.

Local spotlight: Urban Alliance, Detroit

Urban Alliance's model facilitates paid internships for 11th- and 12th-grade youth, helping them build skills, gain experience, and move toward economic independence. Through partnerships with schools, local government, nonprofits, employers, and funders, the program offers paid internships, mentorships, and professional development to bridge the gap between education and work.

Launched in Detroit in 2018 as a pilot with 40 students, the program has scaled to serve over 750 youth aged 18 to 24 in 2025, supporting access to postsecondary education, training, and well-paying careers. Juniors receive career exposure and readiness training, while seniors take part in yearlong paid internships, with skills-building, digital and financial literacy training, and one-on-one support.^{xxxi} In the 2025-26 school year, 130 seniors from 14 DPSCD schools were enrolled.

Local spotlight: Grow Detroit's Young Talent (GDYT)

Launched in 2015, Grow Detroit's Young Talent (GDYT) is a citywide summer jobs program administered by Connect Detroit on behalf of the City of Detroit. Serving youth ages 14 to 24, GDYT exposes youth to diverse career pathways, while building career readiness, skills, and professional networks through paid work experiences and mentorship. The program partners with schools, philanthropic organizations, private employers, and nonprofits to offer these opportunities.

GDYT operates across three experience-based tiers: introductory work and career exposure for first-time workers; skill-building, placements or vocational training for youth with emerging experience; and advanced internships aligned to specific career pathways for youth with prior experience.^{xxxii} Since its launch, GDYT has provided over 87,000 summer employment experiences, including over 8,000 placements in 2025 alone.^{xxxiii}



Local spotlight:**Henry Ford Health System RYSE MED (Readying Youth Scientists for Excellence in Medicine, Health Equity and Discovery) program**

Henry Ford's RYSE MED program is a six-week summer program serving 10th- and 11th-graders in Metro Detroit who face structural barriers in pursuing careers in health equity, medicine, or research. Students get to shadow health-care professionals, develop their professional and leadership skills, build relationships with mentors, and take part in community building activities. Throughout the program, students receive career advice and gain knowledge of various health and community health-related research topics. They are also kept engaged through progressive RYSE opportunities that provide academic, professional, and career growth.^{xxxiv}

RECOMMENDATIONS

1 Add and expand CTE or similar work-based learning programs to reflect student interests and current and future workforce needs.

Young people are more likely to enroll in and complete academic programs when pathways connect to what they care about and clearly lead to real job opportunities. The school district can first evaluate existing programs to ensure that they align with high job openings and wages in the labor market. The district can then scale programs that already work and introduce new pathways where there are currently no work-based learning programs. For example, there are many career pathways in the Services, Skilled Trades, Health, and Transportation clusters with over 1,500 annual openings in the region that can be considered. One critical aspect of this would be to ensure that new program curricula and credentials lead to middle-wage jobs that pay at least \$31 per hour (at least Zone 3 jobs). Further, to increase access and participation, schools can speak to students' interests early on, offer them flexibility to switch tracks as their interests evolve, and make programs available on-site in high schools. A key aspect of supporting high-quality work-based learning programs is sustained funding. Developing a shared funding strategy across state, regional, and local partners can help Detroit supplement or even overcome its millage-related funding deficit.

Overall, this would ensure that Detroit youth are intentionally guided towards high-opportunity and high-impact careers, and that programs meet youth and employer needs and lead to better employment outcomes.



RECOMMENDATIONS

2. Develop and expand access to flexible, high-quality dual enrollment options in high schools.

Dual enrollment allows high school students to enroll in college courses, boosting postsecondary success and graduation rates, saving both time and money. This option allows students to sample different interest areas before fully committing themselves to a pathway. Closing information gaps through early-career guidance and providing clearer communication to students and parents can help them understand available options. Broadening course offerings and offering job-specific credentials or certifications can ensure more students participate. Further, addressing logistical and financial barriers like application processes, transportation, scheduling, and technology-related costs can also increase dual enrollment uptake. Lastly, building stronger partnerships between schools and postsecondary institutions, as well as dedicated funding can help create more sustainable and high-quality programs. Dual enrollment is already a major component of DPSCD's High School Redesign Plan, in which the district plans to increase support to almost twice as many (3,100) students than it currently does (1,600).

Expanding high-quality dual enrollment can support smoother transitions from high school to postsecondary and help Detroit graduates be eligible for jobs that require a postsecondary degree or certificate.

Local spotlight: Lawrence Technological University model

Lawrence Technological University works with over 75 school partners to offer dual enrollment opportunities to over 1,800 students in the region, including certificates and credentials across a wide range of programs that provide low barriers to workforce entry. The university is also working to introduce flexible hours and a virtual academy to help reduce scheduling conflicts and transportation barriers. The university places much emphasis on communication with students and parents, alongside providing mentorship and round-the-clock access to online tutoring and traditional student resources.

RECOMMENDATIONS

3. Bring in employers and industry associations to co-create and co-invest in CTE credentials.

Credentials are a shared investment in skill development, and when workforce needs constantly change, offering and aligning credentials to real jobs requires employer support. Employers already define and validate the skill sets and credentials that really matter. Co-creation of credentials with employers would include going a step further—designing the credentials and shaping course offerings to better meet youth interests, state requirements, and reflect local labor market demand. Employers can co-invest through funding and grants, or provide similar in-kind support, like providing access to equipment or software, training instructors, or even offering skills-training themselves. They can help cover credential costs and exam fees, as well. This can help increase the number of credentials offered through the CTE programs.

By bringing workforce organizations directly into the CTE credentialing process, Detroit students can validate their skills to enter the regional job market directly after high school, and employers gain a strong early-talent pipeline.

National spotlight: CareerSource, Florida

In Florida, CareerSource, an independent state-backed workforce board, partners with industry professionals to determine the skills that lead to high-wage, high-growth occupations in the region, and provides an official list of state-approved degree and non-degree credentials connected to these skills. The credentials are reviewed against labor market demands, wage outcomes, career advancement opportunities and updated annually to ensure they stay aligned to the current and future needs of the workforce.^{xxxv}



In Detroit, the Mayor's Workforce Development Board is well-positioned to deepen this work. The board already convenes with employers and industry partners to set the city's workforce strategies, policies, and programs. By further outlining the skills and state-approved credentials needed to access high-wage, high-growth occupations, youth can understand what they need to access meaningful employment.

RECOMMENDATIONS

4. Strengthen data-reporting requirements and data infrastructure across academic and work-based learning programs.

Reliable and accessible data are essential to knowing who is engaging with programs and for evaluating their impact. This would involve first defining the reporting requirements for different programs and bringing in charter schools in statewide data systems. Information on work-based learning programs outside of state reporting requirements can help identify the other opportunities students are pursuing. Collecting and tracking program participation rates, completion rates, and outcomes can provide an understanding of where students are headed and the quality of their experiences. Collecting data on the types of credentials and jobs pursued by CTE students can help partners understand the quality of CTE programs. Further, creating data platforms that show information on citywide internships, training programs, and apprenticeship opportunities is also essential.

More transparent and consistent data can help partners see what is working, identify gaps, respond to student interests, and strengthen work-based learning models so they better serve Detroit's young people.

5. Support young people in developing both hard and soft skills needed in the workplace.

Though hard skills are tied to specific job roles, soft skills help an individual succeed in both personal and professional settings. Partners should first collaboratively define the relevant skills needed in the workforce and then offer mentoring and training to young people. This can include a focus on building a math and science foundation and developing core digital literacy skills in K-12 via intentionally designed programming. Certificate programs can help youth develop transferable, job-related skills, as well. Soft skills like communication, creative thinking, and time management are also key to building confidence and navigating the workplace. By encouraging participation in training, hands-on projects, school clubs, internships, and networking events that simulate real world situations, partners can help youth connect their learning to tangible outcomes.

Skills-building support can help Detroit youth in navigating their education and careers and provide them with a much better chance of succeeding in the workplace.



RECOMMENDATIONS

6. Introduce and scale 'earn-and-learn' models that meet both youth and employer needs.

Earn-and-learn models, such as paid internships or micro internships, registered apprenticeships, and on-the-job training, connect academic learning to employment and allow young people to earn while practicing their skills. Such opportunities also allow youth to decide if the career is the right fit for them. Approaches could include identifying the skills gap, and intentionally combining soft-skill development, professional networking, and financial literacy alongside job-related experience. Particularly in high-opportunity and high-impact pathways, access to training and related credentials can help young people develop a clearer career path. Further, scaling existing internships, micro-internships and other similar models relies heavily on partnerships, funding, and employer buy-in, and requires addressing employer challenges, too. Increasing program availability and streamlined application processes can help opportunities reach a larger youth population and drive up participation rates.

Overall, accessible earn-and-learn opportunities can create sustainable pathways for Detroit youth, providing them with a clear entry point into local jobs. They can help employers meet their need for talent and reduce future recruitment costs, as well.

7. Address access, administrative, and communication barriers to career-connected learning and employment opportunities.

Providing transportation or virtual options, offering funding support or scholarships, simplifying sign-ups, scaling available programs, and reaching out to parents are ways to tackle barriers that limit access. Clearer application processes and reduced paperwork, for example, can encourage more youth to apply for internships and apprenticeships. Similarly, creating clear points of access and communication protocols can bridge the gap between youth and program administrators. Scaling local youth-serving program capacities to address demand will allow more students to participate. Increasing high school CTE and other opportunities across the 11 neighborhood schools in the city can help broaden access to pathways that are supported by the CTE programs. Partners can work together to spot the barriers, implement supportive policies, and track participation, so students can fully engage.

By removing these roadblocks, more Detroit youth can gain skills, confidence, and relevant experiences, regardless of their location or circumstance.

The following table describes how different partners within the career-connected learning ecosystem can provide leadership, assistance, and the means to move these recommendations forward.



Lead

Schools

- Evaluate existing CTE programs.
- Develop new CTE programs.
- Manage logistics and strategy around CTE and dual enrollment.
- Establish data-reporting standards and collect more robust data.

Postsecondary institutions

- Develop dual enrollment course offerings.
- Expand related credentials and certifications.

Employers, industry associations

- Co-create and co-invest in CTE credentials.
- Define the skills needed in the workplace.
- Offer earn-and-learn opportunities and skills-training.



Enable

State agencies, philanthropic partners, other intermediaries

- Build flexibility into the CTE program approval processes.
- Develop funding flexibility to expand and add CTE programs and dual-enrollment options.
- Establish labor market data-reporting standards.
- Invest in data and evaluation systems.
- Establish other work-based learning program data-reporting standards and collect related data.
- Continue providing annual job opening and wage data.
- Provide funding and incentives for employer participation.



Support

Schools, postsecondary institutions, youth development organizations, wraparound service providers

- Integrate employer-defined skills into curriculum.
- Coordinate employer partnerships.
- Establish student-employer communication channels.
- Prepare students with foundational technical and soft skills.
- Address transportation challenges.

CONCLUSION

The findings in the report, which include insights from youth and stakeholders, offer a detailed picture of career-connected learning in Detroit. It is a system with strong foundations and promising momentum, with significant opportunities for collective action across the board.

As the region's economy grows, the demand for skilled workers will continue to rise across all industries. Meanwhile, young people are making important decisions about their futures every day in this complex labor market. This intersection is where career-connected learning matters most. Young people should be able to leave high school with a clear plan, a defined pathway, and relevant skills to navigate and succeed in this changing economy.

Detroit has many elements necessary to support this work, including dedicated partners and promising initiatives already in place. But Detroit's greatest strength in this work is its young

people. Across the city, youth bring hope and a strong desire to build better futures for themselves, their families, and their communities. They have interests, passions, and ideas about the lives they want to build. They are eager to learn and engage when given meaningful opportunities and support. Investing in career-connected learning is ultimately an investment in that potential.

Intentional collaboration across the ecosystem can help make career-connected learning experiences a more reliable aspect of young people's educational and career journeys. By building on existing strengths and keeping Detroit youth at the center, the city can ensure that young people graduate high school with not only with a diploma, but also with confidence and a true sense of where they are headed, knowing that they have a place in Detroit's future economy.

APPENDIX

Qualitative Methodology

To provide more context around the CTE, labor market, wage estimate, and apprenticeship data, Detroit Future City (DFC) conducted a series of roundtable sessions and one-on-one interviews with about 25 stakeholders from the following sectors:

- Education (K-8)
- Education (high school and postsecondary)
- Employers and workforce-development organizations
- Youth-serving organizations supporting career-connected learning

To understand how youth are experiencing the different aspects of career-connected learning, DFC and Woods & Watts Effect conducted six focus group sessions, engaging 92 youth 16 to 24 years old. Youth represented:

- Current high school students from Detroit public and charter schools.
- Youth currently enrolled at two- and four-year institutions.
- Apprentices across multiple skilled trades.
- Working young adults representing diverse industries and backgrounds.

In addition to the youth focus groups, DFC and Woods & Watts Effect designed and floated a youth survey to gather additional insights on career awareness and exposure, career interests, and career readiness skills. Of the 99 responses received, 83 were from youth who are attending or have attended school in Detroit; only these 83 responses were included in the analysis.



Table I: Enrollment, Concentrators and Credentials for each CTE pathway under a mega-cluster, 2023-2024

Career cluster	CTE program name	Number of programs	Total enrollment	Number of concentrators	Number of credentials
Business, Marketing, Finance	Business Administration Management and Operation	4	445	185	256
Business, Marketing, Finance	Specialized Merchandising, Sales, and Marketing	5	292	110	105
Business, Marketing, Finance	Finance and Financial Management Services	3	192	74	0
Computer Science and Digital Multimedia	Digital/Multimedia and Information Resources	1	141	130	*
Computer Science and Digital Multimedia	Computer Systems Networking and Telecommunications	3	124	52	153
Arts, A/V Tech, Communications	Graphics and Printing Technology and Computing	2	108	72	*
Arts, A/V Tech, Communications	Radio & Television Broadcasting Technology	1	27	1	*
Human Services	Cooking and Related Culinary Arts, General	2	194	175	*
Human Services	Public Safety/Protective Services	1	31	22	0
Human Services	Education General	2	28	24	0
Human Services	Cosmetology	1	26	23	0

* Credential reporting was not required for 2023-24.

Source: University of Michigan Youth Policy Lab analysis of Michigan CTEIS Reports

Table I continued

Career cluster	CTE program name	Number of programs	Total enrollment	Number of concentrators	Number of credentials
Skilled Trades	Construction Trades	1	86	60	0
Skilled Trades	Welding, Brazing and Soldering	3	80	67	0
Skilled Trades	Electrical and Power Transmission Installation	1	29	23	*
Skilled Trades	Home Furnishings Equipment Installers and Consultants	1	26	17	*
Skilled Trades	Lineworker	1	23	17	17
Skilled Trades	Mechatronics	1	18	0	0
Skilled Trades	Heating, Air Conditioning, Ventilation and Refrigeration	1	14	7	*
Health	Health Sciences/Allied Health	2	120	48	1
Health	Health Information/Medical Records Technology	1	9	6	*
Transportation	Automobile Technician	1	41	26	16
Transportation	Collision Repair Technician	1	37	22	1
Transportation	Aeronautics/Aviation/Aerospace Science and Technology	1	19	17	8
Agriculture	Applied Horticulture and Horticulture Operations	1	18	0	*

* Credential reporting was not required for 2023-24.

Source: University of Michigan Youth Policy Lab analysis of Michigan CTEIS Reports

Table II: Annual job openings by job zone for each state-approved CTE pathway in Michigan, 2023-24

Career cluster	CTE program name	Annual job openings (2022-32)	Zone 1/2	Zone 3	Zone 4/5
Business, Marketing, Finance	Business Administration Management and Operations	21,429	13,212	2,355	5,862
Business, Marketing, Finance	Specialized Merchandising, Sales, and Marketing Operations, Other	19,267	13,976	540	4,751
Business, Marketing, Finance	Finance and Financial Management Services	10,520	485	3,040	6,995
Business, Marketing, Finance	Insurance	1,350	215	10	1,125
Computer Science and Digital Multimedia	Computer Systems Networking and Telecommunications	6,750	0	1,395	5,355
Computer Science and Digital Multimedia	Computer Programming/ Programmer	1,910	0	0	1,910
Computer Science and Digital Multimedia	Digital/Multimedia and Information Resources	500	0	40	460
Arts, A/V Tech, Communications	Fashion Design	385	380	1	4
Arts, A/V Tech, Communications	Graphics and Printing Technology and Communications	512	220	17	275
Arts, A/V Tech, Communications	Visual & Performing Arts	590	191	20	379
Arts, A/V Tech, Communications	Radio & Television Broadcasting Technology	345	36	229	80

Source: University of Michigan Youth Policy Lab analysis of DTMB occupational projections for the Detroit Metro Prosperity Region

Table II continued

Career cluster	CTE program name	Annual job openings (2022-32)	Zone 1/2	Zone 3	Zone 4/5
Human Services	Cooking and Related Culinary Arts, General	27,200	26,959	241	0
Human Services	Education General	11,146	1,505	2,355	7,286
Human Services	Hospitality Administration/Management, General	8,018	7,043	775	200
Human Services	Public Safety/Protective Services	3,720	2,381	1,277	62
Human Services	Cosmetology	1,306	151	1,155	0
Skilled Trades	Construction Trades	15,128	12,700	1,888	540
Skilled Trades	Machine Tool Technology/Machinist	5,883	4,146	1,737	0
Skilled Trades	Engineering Technology	3,654	0	781	2,873
Skilled Trades	Electrical and Power Transmission Installation	2,513	296	1,717	500
Skilled Trades	Electrical/Electronics Equipment Installation and Repair	2,144	420	1,724	0
Skilled Trades	Home Furnishings Equipment Installers and Consultants	1,020	658	287	75
Skilled Trades	Drafting & Design Technology/Architectural	811	0	130	681
Skilled Trades	Heavy/Industrial Equipment Maintenance Technologies	751	0	751	0

Source: University of Michigan Youth Policy Lab analysis of DTMB occupational projections for the Detroit Metro Prosperity Region

Table II continued

Career cluster	CTE program name	Annual job openings (2022-32)	Zone 1/2	Zone 3	Zone 4/5
Skilled Trades	Small Engine & Related Equipment Repair	581	526	55	0
Skilled Trades	Heating, Air Conditioning, Ventilation and Refrigeration	556	195	361	0
Skilled Trades	Mechanical Drafting	540	0	145	395
Skilled Trades	Plumbing Technology	536	45	491	0
Skilled Trades	Welding, Brazing and Soldering	520	520	0	0
Skilled Trades	Lineworker	160	130	30	0
Skilled Trades	Woodworking General	108	108	0	0
Skilled Trades	Mechatronics	50	0	50	0
Health	Health Sciences/Allied Health/Health Sciences, General	18,783	6,985	7,727	4,071
Health	Health Information/Medical Records Technology/ Technician	1,965	1,150	185	630
Health	Biomedical Sciences, General	885	76	296	513
Health	Clinical/Medical Laboratory Science/Research and Allied Professions	776	0	475	301

Source: University of Michigan Youth Policy Lab analysis of DTMB occupational projections for the Detroit Metro Prosperity Region

Table II continued

Career cluster	CTE program name	Annual job openings (2022-32)	Zone 1/2	Zone 3	Zone 4/5
Transportation	Transportation & Material Moving	12,066	11,711	15	340
Transportation	Medium/Heavy Truck Technician (ASE Certified)	6,470	6,065	405	0
Transportation	Automobile Technician (ASE Certified)	1,236	445	791	0
Transportation	Collision Repair Technician (ASE Certified)	791	791	0	0
Transportation	Airline/Commercial/Professional Pilot and Flight Crew	720	415	65	240
Transportation	Airframe Technology	126	0	126	0
Transportation	Aeronautics/Aviation/Aerospace Science and Technology	94	45	45	4
Transportation	Avionics Maintenance Technology	1	0	1	0
Agriculture	Applied Horticulture and Horticultural Operations	1,838	1,823	0	15
Agriculture	Animal Health & Veterinary Sciences	1,302	1,095	165	42
Agriculture	Agriculture, Agricultural Operations and Related Sciences	1,115	382	726	7
Agriculture	Natural Resources and Conservation	275	77	10	188
Agriculture	Biotechnology	135	125	10	0

Source: University of Michigan Youth Policy Lab analysis of DTMB occupational projections for the Detroit Metro Prosperity Region

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