

Michigan Workforce Development Programs

Transportation and Civil Engineering (TRAC): The Transportation and Civil Engineering (TRAC) Program is a three-tiered outreach initiative consisting of the following:

TRAC Module Training: An educational outreach program designed to bring high-level, quality, hands-on, no-cost tools into the classroom from 6th thru 12th grade to support teachers' existing curriculum in the areas of math, science, and social science activities. The TRAC curriculum is aligned with the National Education Standards and is founded upon training educators in one to eight modules (activities) to engage students in solving real-world problems while connecting them to the work world of transportation.

TRAC Design and Build Bridge Challenge: Annual statewide contest for selected TRAC students to showcase and present bridges they have designed and built to be tested based upon strength to weight ratio for a chance to compete nationally. In 2023, 366 middle and high school students participated in the challenge. Before the start of the pandemic, the number of students was close to 1,000.

TRAC Internship: Annual student internship to increase the awareness of available careers in Michigan's transportation construction industry, specifically civil engineering, by engaging 12th-grade students in engineering and technical fields through practical work experience.

<https://www.michigan.gov/mdot/careers/trac>

Youth Development and Mentoring Program (YDMP): The goal of MDOT's Youth Development and Mentoring Program (YDMP) is to prepare a diverse workforce for the future by providing 16–18-year-old participants with opportunities to pursue higher education, personal growth, and exposure to transportation careers. The program offers a paid summer internship including mentoring activities and sessions designed to enhance communication skills, develop leadership qualities, and improve awareness of transportation career opportunities. Sessions include job and life skills, introducing college/university options, and presenting information about careers in civil engineering, road construction and maintenance, planning, and other areas of transportation. Participants are also responsible for various maintenance activities during their participation in this program such as roadside and rest area landscaping. The work provides the participants with a meaningful work experience, and practical knowledge, and serves as an invaluable tool for instilling a good work ethic. The program period can last up to six months (April 1 – September 30) per calendar year, and most students participate during their summer break. In 2023, 118 students participated in the program. Before the start of the pandemic, that number was over 400. The 2023 season will be the last year of the program as we transition to the MDOT Transportation Career Pathways Program currently in development.

<https://www.michigan.gov/mdot/careers/ydmp>

MDOT Transportation Career Pathway Program: In 2024, we will be transitioning the Youth Development and Mentoring Program (YDMP) into our MDOT Transportation Career Pathways Program, with a renewed focus on transportation career exploration and preparation for individuals age 18 and older within MDOT and the broader transportation field. This transition aligns with our commitment to offering valuable career preparation and awareness opportunities that address the specific needs of our department. The MDOT Transportation Career Pathways Program will emphasize equipping participants with the tools they need for a deeper understanding of the transportation industry and specialized training, including certification attainment such as CDL and other MDOT-specific certifications. These certifications will prepare participants for maintenance and technician roles within MDOT and the transportation sector. Over a defined program period, the program will offer on-the-job training that includes mentoring activities, enabling participants to gain valuable insights and practical experience.

This transition aims to further enhance our offerings, ensuring that individuals can effectively explore and prepare for careers in both MDOT and the transportation sector.

Student Assistants: MDOT can hire college students as paid student assistants who can work year-round while attending classes for a maximum of 130 hours a month to gain valuable experience by working with professionals at MDOT to support MDOT business functions of all kinds from Engineering, Planning, Accounting, Human Resources, and other business functions. The program helps to build bench strength, creating an experienced pool of candidates who often apply for full-time employment upon graduation. In a snapshot of October 2023, MDOT employed 55 Student Assistants.

Internship Program: MDOT's Internship Program offers undergraduate/graduate college students interested in civil engineering, civil technology, construction management, land surveying, and transportation planning the opportunity to gain work experience, develop professional competence and long-range career goals, integrate work experiences with academic knowledge, and establish a professional network through a paid internship. Students gain valuable experience by working with professional field staff who provide engineering and inspection services and are responsible for overseeing highway and bridge construction contracts throughout Michigan. Work assignments could include performing entry and intermediate-level work including but not limited to inspection, testing, surveying, design plans, and project administration for the department road, bridge, and facilities programs. The work period can last up to six months (May 1 – Oct. 31) per calendar year for a maximum of six years in the program, depending on the department's operational needs. In 2023, 97 interns participated in the program.

<https://www.michigan.gov/mdot/careers/internship-program>

Transportation Diversity Recruitment Program (TDRP): MDOT recruits college students nationally at federally recognized Historical Black Colleges and Universities, Hispanic-Serving Institutions, Asian American and Native American Pacific Islander-Serving Institutions, and/or students participating in student organization conventions such as the National Society of Black Engineers, Society of Hispanic Professional Engineers, American Indian Science and Engineering Society, and Society of Asian Scientists and Engineers. Students are recruited to participate in a paid summer internship at MDOT, American Council of Civil Engineering Companies (ACEC), or Michigan Infrastructure Associates (MITA) Companies. The purpose of the program is to recruit and retain a diverse workforce; to expose and train underrepresented groups to identify and engage in opportunities in the field of transportation; expose them to transportation-related careers; include them in professional, integrated work experiences with academic knowledge; obtain hands-on experience; develop professional networking opportunities and earn income to assist with college expenses. A key goal of the program is to provide professional development and/or technical and engineering-related experiences that will lead to permanent careers in the transportation industry. In addition to students being employed through MDOT, many of these students will be working for consulting/contracting firms or municipalities. The program partners with Michigan colleges and universities to provide awareness of graduate programs and to facilitate room and board. In 2023, 55 interns participated in the program.

<https://www.michigan.gov/mdot/careers/tdrp>

Engineer Development Program (EDP): The EDP offers entry-level full-time engineering positions in a competitive process that offers rotational engineering assignments over two years for newly hired engineers to gain experience in multiple engineering business functions. Employees are matched with an experienced engineer mentor to create professional development and knowledge-sharing opportunities. The program heavily recruits from MDOT's Internship Program, Transportation Diversity

Recruitment Program, and the Capstone Internship Program. In 2022, MDOT hired 12 EDPs and 13 so far in 2023.

Veteran Internship Program: This program is intended to meet the employment needs of honorably discharged veterans of the U.S. Armed Forces as they transition into the civilian workforce. Placement depends upon the veteran's knowledge, skills, and abilities. MDOT offers a variety of employment opportunities in the form of a 2-year paid internship, such as aeronautics, engineering, accounting, maintenance, planning, research, analysis, and administrative support. This program affords Michigan veterans opportunities to enhance current job skills while developing new ones. Additional benefits include applying and competing for full-time MDOT jobs, developing skills for full-time civilian employment, training, and professional development opportunities such as training and career coaching centered on finding full-time employment at regular intervals during their internship. The MDOT Veteran Internship Program is one of 13 Gold Level Employers out of 400 total Veteran Friendly Employers in the State of Michigan.

<https://www.michigan.gov/mdot/careers/veteran-internship>

Vocational Village: Vocational Village is a trades and vocational skill development program within Michigan's Correctional institutions for returning citizens who will be paroled from prison within two years. Three facilities currently offer a Commercial Driver's License Training Program including a snowplow driving simulator. MDOT is recruiting returning citizens participating in these programs for entry-level Transportation Maintenance Worker positions. So far MDOT has hired one individual from this program.

Recruitment Fund: MDOT utilizes federal 504e Transportation Workforce Development funds that are used to recruit for vacant MDOT positions and create awareness of transportation careers such as the Michigan Construction Career Days, Engineering Week, National Summer Transportation Institute Program, and other events.