

Experiential Learning Programs for Traffic Incident/Op Center Managers

In addition to academic and technical preparedness, on-the-job training and other work-based learning experiences are critical components of worker readiness programs. These national programs provide co-curricular value to student career preparedness:

American Association of State Transportation Highway Officials (AASHTO)

While students are not eligible for AASHTO membership, the website offers an email subscription to the Daily Transportation Update of transportation news from across the country. Transportation TV provides information on new publications, initiatives, and other news. This section also incorporates Transportation 101 segments—brief video casts of topics. Other videos feature CEOs and other leaders in the transportation world. AASHTO provides a strong social media presence communicating issues, projects, and announcements.

American Public Works Association APWA

APWA student members connect with a network of professionals. Membership is available to anyone enrolled in at least nine credit hours per semester at an accredited college, university, junior college or community college offering associate's, bachelor's or advanced degree programs in engineering, public administration, planning, construction, or other public works-related coursework. State chapters provide scholarships as a way to attract students to this field. Members also have access to the APWA Reporter magazine, online discussion forms, conferences, and certifications.

American Traffic Safety Services Association (ATSSA)

American Traffic Safety Services Association (ATSSA) represents the road safety, traffic safety, and highway safety industry with effective legislative advocacy, traffic control safety training, and a far-reaching member partnership. ATSSA offers a variety of experiential learning and additional training and networking opportunities through its annual convention and traffic expo, mid-year meetings, and National Work Zone Awareness Week activities.

Federal Highway Administration (FHWA) EOT Program

The Federal Highway Administration's Emergency Transportation Operations program provides tools, guidance, capacity building and good practices that aid local and State DOTs and their partners in their efforts to improve transportation network efficiency and public/responder safety when a non-recurring event either interrupts or overwhelms transportation operations.

Federal Highway Administration (FHWA) TIM Program

The Federal Highway Administration has training for safer, faster, stronger, more integrated incident response, through its National Traffic Incident Management Responder Training Program. This program includes web-based training, a communications toolkit, newsletters, and videos that can help to better equip students and professionals in the industry of traffic incident management.

Intelligent Transportation Society of America (ITS AMERICA)

The Intelligent Transportation Society of America advances the research and deployment of intelligent transportation technologies to save lives, improve mobility, promote sustainability, and increase efficiency and productivity. The Knowledge Center provides a webinar archive and technology scans, while the

Education & Advocacy resources include safety related information that may be useful to students. The annual conferences and ITS America Career Center also provide career-oriented resources for students. Students can become members of ITS America to tap into networking and resources through the organization.

Municipal Traffic Departments

Counties and cities offer opportunities for paid internships, co-ops, and externships. In externship situations, students spend one to three weeks with their hosts at their workplaces for a career exploration experience that usually includes networking, job shadowing, and a focus project. These experiences occur during semester breaks. It is important to emphasize that students can design their own externship experience.

National Operations Center of Excellence (NOCOe)

The National Operations Center of Excellence's site has a multitude of resources for students and professionals in traffic operations. Resources include a searchable Knowledge Center with publications, tools, case studies, on-demand learning, and research. Students can also get involved in experiential learning through the annual Transportation Technology Tournament and TRB ePortfolio Contest. They also have a multitude of videos and toolkits that can help traffic incident and operations center managers raise awareness of emergency responders across the country that work tirelessly to help save lives at the scene of traffic incidents.

National Traffic Incident Management Coalition (NTIMC)

Launched in 2004, the National Traffic Incident Management Coalition (NTIMC) is a multi-disciplinary partnership forum spanning the public safety and transportation communities to coordinate experiences, knowledge, practices, and ideas. NTIMC is committed to safer and more efficient management of all incidents that occur on, or substantially affect, the nation's roadways in order to enhance the safety of on-scene responders and of motorists passing or approaching a roadway incident. The NTIMC provides a number of resources that can benefit traffic incident management students and professionals.

State Departments of Transportation

DOTs offer internships for both community college, university and graduate students. Internships or co-ops are available in a number of occupations relating to incident management: civil engineering, operations, and maintenance. Some DOTs also employ college students to assist in the completion of seasonal work related to highway maintenance, crash system input and analysis, maintenance at roadside rest facilities, and flagging. Some training is provided on the job. DOTs offer rotational programs to entry-level engineers so that they experience different business areas within the organization before selecting a permanent assignment.

Traffic Incident Management Network (TIM)

The goal of the Traffic Incident Management Network is to connect traffic incident management professionals from different disciplines, provide a forum to discuss developing issues of national interest, keep practitioners apprised of the latest industry information, and garner important input from practitioners. Through this network, that is free to join, students and professionals focused on traffic incident management can have access to the Responder, the monthly newsletter, webinars, podcast, virtual peer exchanges, and more.

US DOT Federal Highway Administration (FHWA)

FHWA offers internships and financial support through its Dwight David Eisenhower Transportation Fellowship Program to students pursuing transportation-related occupations. Two hundred students are placed annually in interest-related assignments throughout the agency.

Summer Transportation Internship Program for Diverse Groups (STIPDG)

The U.S. Department of Transportation (U.S. DOT), Federal Highway Administration's (FHWA) Office of Innovative Program Delivery offers internships to college students of various backgrounds. The objective of the STIPDG is to provide college/university students with hands-on experience and on-the-job training while working on current transportation-related topics and issues. The STIPDG is open to all qualified applicants but is designed to provide qualified women, persons with disabilities, and members of diverse groups with summer opportunities in transportation where these groups have been under-represented.

Institute of Transportation Engineers (ITE)

The ITE Student Leadership Summit is entirely planned by students, for students. Through the promotion of leadership and professional development, these events aim to guide future transportation professionals. The Traffic Bowl, another competition, tests students in topics such as transportation operations and engineering. State and local chapters provide opportunities for students to meet professionals and to learn about the latest in engineering practices in their communities.

Innovative Learning Strategies for Traffic Incident/Op Center Managers

To establish curricular lessons and activities that incorporate the latest strategies for increasing student learning effectiveness and retention, a review of practices deployed by workforce and CTE practitioners reveals several approaches that would benefit students within traffic incident/operations related programs of study. These learning strategies include:

Competency-Based Curriculum

Curriculum that meets academic and quality standards, is designed and organized by competencies required for jobs, and is cross-walked with industry skill standards and certifications, where applicable. Job profiling and the use of subject matter experts (SMEs) should be considered to meet the competency needs of business.

Modularized Curriculum

Structured and sequenced curriculum in modules tied to jobs with multiple entry and exit points and multiple levels of industry-recognized credentials built into the pathway.

Asynchronous Learning

Education and training for students and incumbent workers provided at times and locations convenient to students and employers. This may include evenings or weekends, blended or "hybrid" delivery models, and delivery at off-campus locations.

Problem-Based Learning

Instruction that helps students who benefit from hands-on

learning foster team-building skills while solving real-life problems.

Experiential Learning

Opportunities for "learning-by-doing." Examples include apprenticeships, internships, externships, rotational programs, co-op work experiences, simulations, and class projects that are assignments from local employers.

Context-Based Learning

Instruction that fosters interpretation of new information in the context or place of where and when it occurs. By relating new information to what the student already knows, the student comes to understand its relevance and meaning.

Individual Learning

Learners are different and innovative learning environments reflect the various experiences and prior knowledge that each student brings to class. It's important that practices and processes help teachers engage each student where they are.