

# ***Model to Engage Multidisciplinary Student Talent in Transportation Problem-Solving***

## **Background**

It is always a challenge to attract into transportation careers emerging professionals who possess the in-demand skillsets needed in a dynamic and changing environment. For busy staff at public agencies, meeting day-to-day operational demands with limited resources often takes precedence over outreach efforts directed at attracting future talent.

What if transportation agencies made a conscious effort to identify their needs and skillset gaps and to package them into projects optimized for undergraduate and graduate student participation? Could an agency address some internal capacity issues, get work done, and at the same time expose multidisciplinary students to transportation career opportunities?

## **Approach**

Colleges and universities have large pools of students with diverse academic backgrounds who are eager to apply their learning in real world contexts. The **Educational Partnerships in Communities Network (EPIC-N)** is a consortium of higher education institutions implementing a common model to facilitate large-scale project partnerships between public agencies and universities.

### **Key components of the EPIC Model:**

- A coordinator from the agency and a coordinator from the university work together as intermediaries, making it easy for staff members and faculty to plug in.
- The agency identifies project ideas.
- Faculty select projects that coincide with their course learning objectives.
- Individual faculty and agency project leads co-develop a scope of work for each project.
- Students from multiple departments work on a variety of course-based projects over the semester, interact with agency staff, and provide concrete deliverables to agency.
- Students develop professional skills and increase their awareness of transportation challenges and career opportunities.



### EPIC-N presents a simple model to:

1. Match community-driven needs to university capacity & expertise through **large-scale, course-based project collaborations**.
2. Magnify **student engagement** in real-world transportation problem-solving across disciplines.
3. Work within existing institutional structures for maximum **efficiency**.
4. Increase **organizational capacity** by providing public agencies with low-cost access to new ideas/energy/resources to solve pressing transportation issues.
5. Afford students opportunities to explore **transportation careers** and to **apply multidisciplinary skills** in real contexts to make a positive impact.

### Resources:

The West Region Transportation Workforce Center (WRTWC) at the Western Transportation Institute at Montana State University developed a **University Partnership Playbook** as a guide for transportation agencies interested in establishing or expanding existing course-based project collaborations at colleges and universities as a means of developing the future transportation workforce.

## University Partnership Playbook



**Leverage public resources for the public good**

Scan for Playbook:



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