

Analysis of the Causes of Workforce Shortages: Create Guidelines for Education and Workforce Development in Transportation to Generate Future Careers for the Navajo Nation

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\$20,000

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Tran-SET

Total Project Cost:

\$20,000

Evaluating the causes of workforce shortages in the transportation field (inside the Navajo Nation) and conducting educational activities to address them

This study aims to investigate the sources of workforce scarcities and create guidelines to address those scarcities as it relates to transportation-related careers inside the Navajo Nation. Specifically, this study has four main components: (1) deliver summer internship opportunities to interested Navajo students in the transportation field at Tran-SET-affiliated universities, (2) support interested Navajo students to attend transportation-related seminars and workshops at Tran-SET-affiliated universities, (3) analyze the root cause of workforce deficiencies in the transportation industry inside the Navajo Nation, and (4) design and begin preparing a transportation-related certificate program at the Navajo Technical University.

Problem Statement

Research and analysis is needed to understand the causes of the shortage in workforce and to determine the skill sets needed for today's transportation industry worker (inside the Navajo Nation). Possible causes of the shortage (inside the Navajo Nation) include: lack of programs in the field of transportation, increase in the educational requirements, and too few educational institutions offering proper degrees. Workforce development for the transportation industry is a critical issue, especially inside the Navajo Nation. Current newcomers to the transportation construction industry do not have sufficient knowledge or experience when entering the field, while keeping existing workers is often challenging due to the draw of increased salaries and responsibilities offered by private companies (outside the Navajo Nation).

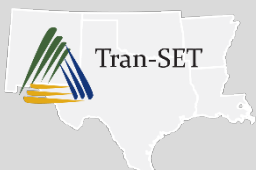
Objectives

This project intends to investigate the above as well as implement educational and workforce preparedness to better support current and future economic needs and improve job opportunities for transportation industry workers (inside the Navajo Nation). The following specific tasks will be completed during the project:

- **Task 1:** Literature review and data analysis to determine the needed skill sets and potential cause of workforce shortage in construction and other industries;
- **Task 2:** Analysis to determine the best strategies used by transportation agencies and firms to retain transportation staff;
- **Task 3:** Create guidance for education and workforce development activities (inside the Navajo Nation) based on the above tasks;
- **Task 4:** Improve education and workforce development processes and procedures that can be used by educational and training agencies for incoming transportation personnel; and
- **Task 5:** Conduct education and workforce development workshop at the Navajo Technical University.

Intended Implementation of Research

This study will adopt strategic partnerships that lead to quality, education-focused professional and personal growth opportunities for the community in the areas of professional development and training. Adult and community education programs may be offered in order to fulfill the educational needs of each community. These may include: (1) pursuing a degree/certificate course of study; (2) conducting various community educational and workforce development programs and seminars; and (3) offering of non-credit courses to the community's transportation and construction industries. Through a variety of activities, including seminars, training, consultation and resource networking, implementation may lead to the: (1) promotion quality education and team building, (2) increase in productivity and the quality of the working environment, and (3) attraction of new students, businesses and industry, and (4) education of the general public about economic development in transportation construction.



Anticipated Impacts/Benefits of Implementation

Anticipated impacts include the improvement of education and workforce preparedness (inside the Navajo Nation) to better support current and future economic needs and improve job opportunities for transportation industry workers.

Web Links

- [TranSET's website](https://transet.lsu.edu/research-in-progress/)
(<https://transet.lsu.edu/research-in-progress/>)
- [TRB's Research in Progress \(RIP\) database](https://rip.trb.org/View/1644234)
(<https://rip.trb.org/View/1644234>)

Tran-SET

Tran-SET is Region 6's University Transportation Center. It is a collaborative partnership between 11 institutions (see below) across 5 states (AR, LA, NM, OK, and TX). Tran-SET is led by Louisiana State University. It was established in late November 2016 "to address the accelerated deterioration of transportation infrastructure through the development, evaluation, and implementation of cutting-edge technologies, novel materials, and innovative construction management processes".

Learn More

For more information about Tran-SET, please visit [our website](#), LinkedIn, Twitter, Facebook, and YouTube pages. Also, please feel free to contact Mr. Christopher Melson (Tran-SET Program Manager) directly at transet@lsu.edu.

