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| **UTC Project Information** | |
| Project Title | Rural Bridge Safety: Evaluation of Atypically Large Farm Vehicles |
| University | University of Idaho |
| Principal Investigator | Ahmed Ibrahim |
| PI Contact Information | aibrahim@uidaho.edu |
| Funding Source(s) and Amounts Provided (by each agency or organization) | University of Washington PacTrans $45,000  University of Idaho $45,000 |
| Total Project Cost | $90,000 |
| Agency ID or Contract Number | DTRT13-G-UTC40 |
| Start and End Dates | December 16, 2016 – January 31, 2018 |
| Brief Description of Research Project | The Pacific Northwest region has no data on the assessment and recommendations on rural bridge design and safety subjected to Farm Vehicle (FV) loading. The proposed study will determine how different types of FVs with different characteristics distribute their loads on bridge superstructures. These will be realized through actual load testing, computer simulation, and statistical analysis. At least two bridges, one in ID and one in OR, will be physically tested, subject to a variety of FVs. The structural behavior of the bridges will be monitored using wireless sensors to assess the behavior of bridges’ superstructures and the corresponding load distribution factors for girders under the critical loading conditions will be determined. The selected bridges will be representative of rural bridges problematic for FV traffic in the region. The field investigation of the proposed bridges will be used to validate computer models in order to explore a broad number of bridges under various FVs. |
| Describe Implementation of Research Outcomes (or why not implemented)  Place Any Photos Here |  |
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| Impacts/Benefits of Implementation (actual, or anticipated) |  |
| Web Links   * Reports * Project Website |  |