



## FY 2016 Research Problem Statement

ODOT Research Section  
555 13<sup>th</sup> Street NE; Ste 2  
Salem OR 97301-5192

Phone (503) 986-2700  
Fax (503) 986-2844

### I. TITLE

17-036 Statewide Data Standards to Support Current and Future Strategic Public Transit Investment

### II. PROBLEM

Informed decision-making relies on accurate and affordable real-world observed data. Public Transit Providers across the state of Oregon are separate private business entities focused on meeting their own immediate and short term goals and objectives. Each Transit Provider varies in terms of their level of technical expertise and resources available to generate data needed by ODOT for statewide investment decisions. ODOT is responsible for providing Oregonians with safe affordable options for transportation in order to gain access to jobs and services, which depends on accurate understanding of users' access to public transit.

In order to do this, ODOT collects data from transit providers across the state and processes it into meaningful information used to choose the most effective and economical public transit investment decisions across the state. Unfortunately, data available from providers is meager and varies significantly by Transit Provider. Some providers have virtually no data, others have some data in a variety of formats, while others are missing important details or are so rattled with error the data is rendered unusable. This means ODOT lacks real-world data upon which to make informed decisions. The goal of this research project is to develop a common data framework for all Oregon Public Transit Providers to use and share their data in a standard format. This common framework will include data elements needed to support ODOT and our partner Public Transit Providers in making informed decisions with respect to public transit investments.

### III. PROPOSED RESEARCH, DEVELOPMENT, OR TECHNICAL TRANSFER ACTIVITY

This research will identify the data elements needed for tracking and reporting public transit activity and performance from Oregon Public Transit Providers. Data elements will include currently available data as well as emerging data available from more sophisticated technology included on new transit vehicles. Anticipated data elements given emerging technology, such as associated with connected vehicles, will also be identified. Data elements identified through this research will be used to develop a recommended data framework to serve ODOT's need for current and anticipated public transit investment decision making. The common framework will standardize data needed for public transit reporting and data sharing across our partner agencies, Transit Providers and USDOT. This research shall include a recommended implementation approach over time to enable all Transit Providers to advance their data practices as they are able to adopt new technologies and methods (such as Bluetooth, WiFi, etc.) at their own pace, knowing ahead of time what data they will be expected to report.

### IV. POTENTIAL BENEFITS

- ODOT and Public Transit Providers will gain access to data used to formulate information needed to make effective and efficient data-driven decisions;
- ODOT will obtain data necessary for performance metrics and MAP21 reporting for lower costs;
- ODOT and Public Transit Providers will save time and resources through data standardization, gaining more information with less labor hours or data collection costs;
- The Data Framework will provide clear direction to Transit Providers when deciding what equipment technology to include when purchasing new buses; most buses last about 10 years, - implementing new data collection

equipment will occur incrementally across state Public Transit Providers; ODOT does not expect Providers to immediately implement new technology, but a standardized data framework will make data expectations clear.

## V. IMPLEMENTATION

Completion of this research project coincides with completion of the Oregon Public Transportation Plan (OPTP). Implementation of the Plan requires real-world data that is informative and complete across the entire state of Oregon. The data framework identified in this project is fundamental to creating a coherent and complete data set designed to support implementation of the OPTP. The data framework deliverable will be the template for statewide Public Transit Providers to use for data reported to ODOT. ODOT will use this framework to store and maintain Public Transit data statewide. Guidelines for Transit Providers to strategically plan for new technologies providing data elements will be developed based on the data framework elements.

## VI. LIST OF REFERENCES *(optional)*

## VII. CONTACT INFORMATION

**Your name:** Becky Knudson

Affiliation: Planning Section

Telephone: 503.986.4113

Email: [Rebecca.a.knudson@odot.state.or.us](mailto:Rebecca.a.knudson@odot.state.or.us)

**Person Responsible for Implementation:** Hal Gard (Matt Barnes)

Affiliation: ODOT Rail and Public Transit Division

Telephone: 503.986.4077 (503.986.4051)

Email: [howard.a.gard@odot.sate.or.us](mailto:howard.a.gard@odot.sate.or.us) ([matthew.m.barnes@odot.state.or.us](mailto:matthew.m.barnes@odot.state.or.us))

---