

Number: 25-18

Proposed Title: Methods and Recommendations for Incorporating On-Demand and Micro-Transit Data in Performance and Equity Analysis

1. Concisely describe the **transportation issue** (including problems, improvements, or untested solutions) that Oregon needs to research.

Many public transit agencies in Oregon now incorporate on-demand and/or micro-transit (ODMT) services alongside their fixed-route service with the ultimate objective of improving access and mobility for users. Even though some agencies currently operate these services, often they do not have any formal methods and procedures for analyzing their effectiveness and impact on their operations and improvement decisions. Oregon transit agencies need to be able to make evidence-based decisions to understand and improve their transit services and, with ODMT services, there is a wealth of opportunity to make a significant impact on equitable access for transportation disadvantaged residents. To fulfill this goal, this research would study the relevant issues to develop methods and recommendations for the actionable incorporation of on-demand and micro-transit data into broader transit equity and performance analysis. While some limited ODMT analysis is currently available in select transit software, the type of analysis is limited and not able to easily produce actionable information.

2. Document how this **transportation issue** is important to Oregon and will meet the [Oregon Research Advisory Committee Priorities](#)

ODMT services are increasingly being recognized as integral components in operations that help public transit agencies facilitate their goals. These services add mobility options to communities of concern (COC) (i.e., transportation, socially, and economically disadvantaged individuals and groups) and increase social equity while simultaneously improving economic vitality and benefiting environmental sustainability. Through increasing access to employment, services, and commerce, increasing inclusivity by reducing social isolation and geographic barriers, and reducing emissions through economies of scale in transit vehicles, many overlapping priorities of ODOT and Oregon public transit agencies are addressed. Newly enacted ODMT services may also increase the utilization of well-established fixed-route transit services, as it can greatly broaden the geographic boundaries of access through first-mile/last-mile connectivity and enable temporal efficiencies in transfer opportunities.

The proposed work addresses the Oregon Research Advisory Committee's priorities of equity and mobility. If this research is not completed, transit agencies will likely continue to make inefficient and ineffective decisions regarding the use of their ODMT services and related funds. The COC will also continue to suffer disproportionately and perhaps to an even greater extent.

3. What **final product or information** needs to be produced to enable this research to be implemented?

This research would document methods and summarize findings in a final report, and an implementation manual would need to be produced. It is expected that such a manual would enable Oregon public transit agencies to apply the created methodological framework with existing and available transit data tools and analysis software. The methodological framework would also likely include recommendations for several implementable performance and equity metrics (e.g., measures of spatial and temporal connectivity, accessibility isochrones, demographic access counts, destination reachability, passenger miles per revenue hour, etc.). The metrics will enable the quantification of the benefits delivered to the COC and of those realized by the transit agencies.

4. (Optional) Are there any individuals in Oregon who will be instrumental to the success of implementing any solution that is identified by this research? If so, please list them below.

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Jeramy Card	Development Planner	jeramy.card@ltd.org	541-682-6148
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5. Other comments:

The project will take advantage of the data collected from the ODMT services operated by Lane Transit District in Cottage Grove.

6. Corresponding Submitter's Contact Information: [1 individual]

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