

FY 2009 RESEARCH PROBLEM STATEMENT

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TITLE

IM-09-07 Assessing the Magnitude of School-Related Travel and the Potential for On-Site After School Programs to Reduce Travel and Greenhouse Gas Emissions

PROBLEM (Description of need)

Substantial amounts of vehicle travel occur in the hours following the end of the school day as children are shuttled to various after school activities or to home. The timing of these journeys doesn't permit them to be readily linked into other travel tours such as work commutes. Moreover, the locations of after school activities tend to be dispersed around urban areas, making them hard to reach by ways other than private vehicle. Extending the school day and using the extra time to provide a range of activities at the school might provide the conditions for substantially reducing this component of VMT and greenhouse gas (GHG) emissions.

The need to reduce GHG emissions will be the defining challenge for transportation over the next several decades. To achieve the state goal for GHG emissions to be 75% below 1990 levels in 2050, per capita vehicle miles traveled (VMT) will need to be reduced substantially. Achieving the necessary VMT reductions will require a number of different transportation and land use actions. ODOT and other transportation agencies will need to take a broader look at the components of travel and ways to economize on them.

PROPOSED RESEARCH, DEVELOPMENT OR TECHNOLOGY TRANSFER ACTIVITY

The 1994-1996 statewide household travel activity survey data will be used to quantify the magnitude of after-school travel that is associated with transporting children to activities or home and is not linked to commute tours. The quantity of vehicle travel will be estimated in terms of numbers of trips, vehicle miles traveled, household travel cost, GHG emissions and other relevant measures. A scenario for providing extended hours and school-based activities will be developed for a study city. Rough cost estimates of implementing the scenario will be developed. School-related travel will be simulated for the scenario and vehicle travel quantities estimated. The potential vehicle travel savings will be computed and cost savings will be compared to the implementation cost estimates.

BENEFITS

To achieve necessary GHG reductions, Oregonians will need to approach demand management in new ways. The study will demonstrate one new approach to demand management and show how the effects can be quantified using existing data. The methods developed could be applied to other demand management applications. The results of the study may also show that this particular approach to demand management is promising and should be developed further. The research would provide the basis for further action.

CONTACT PERSON:**FOR RESEARCH UNIT USE ONLY**

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