

DEMONSTRATION OF AN ACTIVITY-BASED MODEL SYSTEM FOR PORTLAND

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Abstract

We report the first operational implementation of an activity-based travel demand model system proposed in 1994 by Ben-Akiva, Bowman and Gopinath. Integrated disaggregate discrete choice models represent an individual's demand for activity and travel as an activity pattern and a set of tours. The system explicitly represents total daily demand, trip chaining, inter-tour and at-home vs on-tour trade-offs, as well as timing, mode and destination choices. Preliminary application results demonstrate the model's ability to capture activity substitution, time of day shifts and increased leisure travel demand in response to a congestion pricing policy.