

Improving ADA Paratransit Demand

Nelson\Nygaard developed a set of tools that transit operators can use to estimate demand for ADA complementary paratransit service. The tools were developed to predict the demand for paratransit services that meet - but do not exceed - the ADA requirements. The tools are based on a statistical analysis of actual demand at 28 “representative systems” where demand is not limited by capacity constraints.

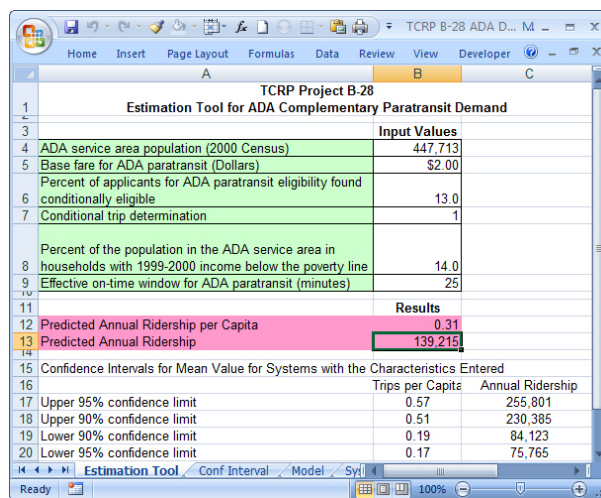
The model has been implemented as an easy-to-use spreadsheet that predicts demand based on six factors:

- Population
- Paratransit base fare
- Poverty levels in the community
- The percentage of applicants for ADA paratransit eligibility found conditionally eligible
- Whether or not trip-by-trip screening based on conditions of eligibility is used
- The effective window allowed for on-time vehicle arrivals to pick up passengers.

The published Handbook also includes graphs for determining factors for hand calculation, elasticities for estimating the impact of small changes, and a detailed discussion of appropriate uses of the model and its policy implications.

The demand estimation tools are “sketch planning” tools that operators can use to help assess their service and compare it to other systems.

Following the completion of TCRP Report 119, Nelson\Nygaard was retained to develop more advanced travel models, using state of the art methods of regional household travel forecasting. Trip diaries completed by individual paratransit riders will be used to estimate models that predict how paratransit users make decisions about: how much to travel, where to travel, and how many trips to make by ADA paratransit and other modes.



TCRP Project B-28 Estimation Tool for ADA Complementary Paratransit Demand		
Input Values		
4	ADA service area population (2000 Census)	447,713
5	Base fare for ADA paratransit (Dollars)	\$2.00
6	Percent of applicants for ADA paratransit eligibility found conditionally eligible	13.0
7	Conditional trip determination	1
8	Percent of the population in the ADA service area in households with 1999-2000 income below the poverty line	14.0
9	Effective on-time window for ADA paratransit (minutes)	25
Results		
12	Predicted Annual Ridership per Capita	0.31
13	Predicted Annual Ridership	139,216
Confidence Intervals for Mean Value for Systems with the Characteristics Entered		
	Trips per Capita	Annual Ridership
17	Upper 95% confidence limit	0.57 255,801
18	Upper 90% confidence limit	0.51 230,385
19	Lower 90% confidence limit	0.19 84,123
20	Lower 95% confidence limit	0.17 75,765

Project Duration: 2005-2007

Total Budget: \$250,000

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