

# Appendix A: TCRP Trip Rates

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## Appendix A

### TABLE 1

#### Recommended Methodology for Estimating Annual Program-Related Rural Passenger Transportation Demand (From TCRP Report 3)

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##### D= Annual One-Way Person-Trips

##### Program Type

##### ***Developmental Services: Adult***

Participants < 25;     $D = 358 \times \text{Number of Participants}$

Participants  $\geq 25$ ;     $D = 430 \times \text{Number of Participants} - 1,686$

##### ***Developmental Services: Case Management***

$D = 39.2 \times \text{Number of Participants}$

##### ***Developmental Services: Pre-School***

$D = 224 \times \text{Number of Participants}$

##### ***Group Home***

Participants < 10;     $D = 2.05 \times \text{Number of Participants} \times \text{Days of Operation}$   
or, if the number of days of operation is not known,  
 $D = 615 \times \text{Number of Participants}$

Participants  $\geq 10$ ;     $D = (1.42 \times \text{number of Participants} + 5.94) \times \text{Days of Operation}$   
or, if the number of days of operation is not known,  
 $D = 291 \times \text{Number of Participants} + 3,760$

##### ***Headstart***

$D = 263 \times \text{Number of Participants}$

##### ***Headstart: Home Base***

$D = 0.16 \times \text{Number of Participants} \times \text{Days of Operation}$   
or, if the number of days of operation is not known,  
 $D = 30.5 \times \text{Number of Participants}$

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**TABLE 1**

**Recommended Methodology for Estimating Annual Program-Related  
Rural Passenger Transportation Demand**  
(from TRCP Report 3)

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**D = Annual One-Way Person-Trips**

Program Type

***Headstart: Other***

D = 1.86 x Number of Participants

***Job Training***

D = 137 x Number of Participants

***Mental Health Services***

D = 347 x Number of Participants

***Mental Health Services: Case Management***

D = 6.35 x Number of Participants

***Nursing Home***

Participants < 50; D = 9.10 x Number of Participants

Participants > = 50; D = 12.5 x Number of Participants - 173

***Senior Nutrition***

D = 248 x Number of Participants

***Shelter Workshop***

D = 1.58 x Number of Participants x Days of Operation  
or, if the number of days of operation is not known,  
D = 384 x Number of Participants

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**TABLE 2**

**Recommended Methodology for Estimating Annual Non-Program-Related  
Rural Passenger Transportation Demand**  
(from TRCP Report 3)

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$$D = R_e E \left( \frac{1}{1 + k_e e^{-U_e}} \right) + R_m M \left( \frac{1}{1 + k_m e^{-U_m}} \right) + R_p P \left( \frac{1}{1 + k_p e^{-U_p}} \right)$$

where:

D = annual demand for Non-Program-Related passenger transportation.  
(One-Way Trips Per Year)

$$R_e = 1,200$$

$$R_m = 1,200$$

$$R_p = 1,200$$

E = number of persons age sixty or over.

M = number of mobility-limited persons age sixteen to sixty-four.

P = number of persons, age sixty-four or less, in families with incomes below the poverty level.  
The definition of the poverty level is that used for the 1990 U.S. Census.

$$k_e = e^{6.38}$$

$$k_m = e^{6.41}$$

$$k_p = e^{6.63}$$

$$U_e = 0.000510 \times \frac{\text{Annual Vehicle-Miles Available to Elderly Market}}{\text{Area of the County}}$$

$$U_m = 0.000400 \times \frac{\text{Annual Vehicle-Miles Available to Mobility-Limited Market}}{\text{Area of the County}}$$

$$U_p = 0.000490 \times \frac{\text{Annual Vehicle-Miles Available to Low-Income Market}}{\text{Area of the County}}$$

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