



## **NVTC Exercise (2018 Revised)**

# ***Cost Per Ride***

## ***Attention Volunteer Driver Programs***

This exercise introduces transportation fares and the actual costs of providing rides; a method for use in figuring transportation-related costs; the impact of program-related activities on transportation service costs; how to figure cost per ride; and the cost of not providing rides.

### ***Fares for Rides***

Below are examples of fares charged to passengers by five hypothetical public and community-based transportation services.

A public transit service per ride fare:	\$1.00 per ride
An ADA paratransit service per ride fare:	\$2.00 per ride
A community transit service per ride fare:	\$3.00 per ride
A taxi service average per ride fare:	\$12.00 per ride
A volunteer driver program per ride fare:	no fare

The volunteer driver program appears to be the most economical fare paid for by passengers. Why would the fares vary so much, and is the fare paid by passengers similar or equal to the cost services incurred in actually providing rides?

### ***Actual Service Costs For Rides***

To have a better understanding of difference in fares and the costs of providing rides, we can look at the transportation budgets and the number of rides provided by our hypothetical transportation services.

A public transportation service: (\$2,000,000 budget/500,000 rides)	\$4.00 per ride
The ADA paratransit service:(\$1,000,000 budget /2,000 rides)	\$50.00 per ride
The community transit service: (\$1,000,000 budget/100,000 rides)	\$10.00 per ride
The taxi service: (\$1,000,000 budget/200,000 rides)	\$5.00 per ride
The volunteer driver program (\$50,000 budget /3,000 rides)	\$17.00 per ride

These examples tell us: (1) there is a difference in fares paid by passengers and the actual cost of providing rides; (2) with the exception of paid services, transportation services generally subsidize their rides, most likely with public funding or private contributions; (3) the costs of providing rides will vary since they are based on the number of rides and expenses related to transportation service delivery; (4) volunteer driver programs do not tend to charge for rides and rely on grants and other funding to support their transportation services: and (5) volunteer driver programs often have difficulty calculating their costs per ride.

## ***Volunteer Driver Program Fares and Costs***

Although many volunteer driver programs do not charge for rides, passengers often make contributions in lieu of fares. However, unlike traditional transportation services, volunteer driver programs often do not calculate the costs of actually providing those rides.

See the examples below.

<b><i>Fares/Contributions</i></b>		<b><i>Cost of Providing Rides</i></b>	
Program 1	-0-	Program 1	???
Program 2	\$2.00	Program 2	???
Program 3	\$5.00	Program 3	???
Program 4	\$7.00	Program 4	???
Program 5	\$10.00	Program 5	???

## ***Identifying Transit Service Expenses***

These examples suggest challenges faced by many volunteer driver programs. Although they may receive financial support for providing their rides, they may not know how much delivering those rides actually costs them. So, let's use the example of a volunteer driver program that provides 5,000 rides and wants to know how much it costs to provide the rides. Below are two critical expense categories related to the costs for providing volunteer transportation.

<b><i>Transportation Expense</i></b>	<b><i>Administrative Expense</i></b>
<i>Vehicle rental/payments</i>	<i>Staff</i>
<i>Vehicle maintenance/repair</i>	<i>Accounting</i>
<i>Fuel</i>	<i>Dues and Subscriptions</i>
<i>Vehicle insurance</i>	<i>Equipment Maintenance/Repair</i>
<i>Driver salaries</i>	<i>Organizational Insurance</i>
<i>Mileage reimbursement</i>	<i>Meetings &amp; Conferences</i>
<i>Program Insurance:</i>	<i>Licenses/Taxes/Fees</i>
<i>Commercial liability</i>	<i>Promotion</i>
<i>Volunteer insurance</i>	<i>Rent</i>
<i>Volunteer recognition</i>	<i>Communications: Telephone/Internet</i>

*It may be fairly simple to calculate the transportation relate expenses. However, it may be much more difficult to break out the transportation related expenses incurred in administering the program, especially if the volunteer driver program undertakes activities in addition to providing volunteer transportation.*

## ***Calculating CPR May Not Be Easy***

In order to understand the true cost of providing volunteer transportation, it is necessary not only to calculate the transportation service costs, but also to calculate the administrative costs related to providing transportation.

### **The Simple Task**

**(Identifying Transportation Expenses)**

*Vehicle rental/payments, vehicle maintenance/repair, fuel, vehicle insurance, driver salaries, mileage reimbursement, program insurance, volunteer recognition*

Let's Say Transportation  
**Expenses = \$50,000**

### **The Difficult Task**

**(Allocating Transportation Related Administrative Expenses)**

*staff, accounting, dues & subscriptions, equipment maintenance/rental, organization insurance, meetings and conferences, licenses /taxes/fees, promotion., rent, communication (telephone, internet)*

Total Administrative Expense = \$100,000

Let's Say Transportation-Related **Admin.**  
**Expenses = \$50,000**

In determining the cost of providing transportation: (1) the transportation expenses are calculated; (2) the transportation expenses are deducted from the total administrative expense; (3) the two expenses are totaled; (4) the totals of these expenses are divided by the number of rides (for example 5,000 rides)'; and (5) the result is the cost per ride.

***(total transportation expenses = \$100,000 / 5,000 rides = \$20.00 per ride***

## ***Counting Rides Isn't Simple Either***

Now, let's use Mr. Jones as an example of how to count rides. Mr. Jones uses a volunteer driver program to get to his destinations. When traveling with the program on a single trip he goes from his home to the doctor, the pharmacy, the grocery, the library and back home. The examples below show two ways programs count rides.

**Program A:** Counts Round-Trip Rides

**Program B:** Counts One-Way Rides

**Program A** would calculate Mr. Jones trip as **One Round Trip Ride.**

**Program B** would calculate Mr. Jones trip as **5 Rides.**

(to the doctor, the pharmacy, the grocery, the library, and to home).

If **Program A** counts 2,000 one-way rides, **Program B** might count 10,000 rides one-way rides. However, both **Programs A and B** incur \$100,000 in expenses in providing those rides.

So, what would be the cost per ride for these two programs even though both might have actually provided the same number of rides?

**Program A: Cost Per Ride: \$100,000/2,000 round trip rides = \$50.00 CPR**

**Program B: Cost Per Ride: \$100,000/10,000 one-way rides = \$10.00 CPR**

# Review

## How To Calculate CPR

- 1. Identify Transportation Expenses**
- 2. Identify Administrative Expenses**
- 3. Allocate All Transportation Expenses**  
(including admin. Related trans expenses)
- 4. Accurately Count The Number of Rides**  
(e.g. count one-way rides)
- 5. Divide Transportation Expenses by the Total # of Rides**

## ***Cost of Not Providing Rides***

This discussion is prompted by information conveyed by managers of volunteer driver programs who often say the transportation services they provide can delay premature institutionalization for some of their passengers for 1 1/2 to 2 years. So let's begin by looking at the costs of rides for four hypothetical passengers.

### ***Hypothetical Passengers & Program Costs for Rides***

<b><i>Mr. Henry \$5.00 per ride (work rides @ 312 rides per year)</i></b>	<b><i>= \$1,560</i></b>
<b><i>Mr. Smith \$10.00 per ride (senior Center @160 rides per year)</i></b>	<b><i>= \$1,600</i></b>
<b><i>Ms. Jones \$15.00 per ride (volunteering @ 140 rides per year)</i></b>	<b><i>= \$2,100</i></b>
<b><i>Ms. Adams \$7.50 per ride (dialysis @ 312 rides per year)</i></b>	<b><i>= \$2,340</i></b>

### ***Costs of Transportation vs. Long Term Care***

Now, let's say that Ms. Adams does not have volunteer driver program (or any transportation option) that can get her to her dialysis treatments and thus would be like other older adults who cannot get to health care facilities or other important destinations. At some point, she might need to explore residential care in an assisted living facility or a nursing home to ensure that she can receive dialysis treatments three times a week. What would be the difference in the costs incurred in using a volunteer driver program to get to her dialysis treatments versus the costs of residing in a long term care facility?

Although Ms. Adams' volunteer driver program does not charge a fare for her rides, it costs \$7.50 to provide each one way ride. Thus, the annual cost for her volunteer driver program to provide Ms. Adams with rides to dialysis three times a week would be \$2,340.

$$\mathbf{\$7.50 \times 6 \text{ one-way rides each week} = \$45.00 \times 52 \text{ weeks} = \$2,340 \text{ per year}^*}$$

Now, let's look at how much it would cost Ms. Adams, her health insurance company or a government agency such as Medicaid to support her costs for care if she needs to go to a care facility. Below is an estimate of how much it might cost if she needs to relocate to an assisted living or nursing home care facility.

<b><u>Assisted Living Costs (private 1 bedroom)</u></b>	
<b>\$3,628 monthly cost</b>	<b>\$43,536 annual cost*</b>
<b><u>Nursing Home Care (private room)</u></b>	
<b>\$7,698 monthly cost</b>	<b>\$92,376 annual cost*</b>

It is clear that the cost of **not providing Ms. Adams with rides** would be much **greater** if she **could not access** a volunteer driver program and needed institutional care. The take-away is that volunteer driver programs often serve as an inexpensive method of enabling access to many health care services and can help people to age in place in their communities.

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\*The Genworth 2016 cost of care survey provides the national median of monthly and annual costs for assisted living and nursing home care. The survey (which covered 440 regions and collected 15,000 surveys) was conducted by Carescout.

# The National Volunteer Transportation Center

<http://nationalvolunteertransportationcenter.org/>



*The National Volunteer Transportation Center resulted from the efforts of each of its founders to support existing and emerging volunteer transportation programs and services across the country.*

*In 2000, the Beverly Foundation began a research and awards initiative related to volunteer driver programs. In 2014, the National Volunteer Transportation Center opened with a database of more than 700 volunteer transportation programs throughout the 50 states plus the District of Columbia and Puerto Rico. In 2015, Toyota and the NVTC partnered to undertake the Center's STAR Awards program and a variety of other initiatives.*

*The NVTC website includes numerous technical and informational materials related to planning, organizing, and managing volunteer driver programs. Perhaps its most important asset is the wisdom, experience, and expertise of its founders who, as a group, bring to the Center a long history of transportation and aging research, direct service delivery, risk management*



**TOYOTA**