Ridesharing

What is it?
Ridesharing programs facilitate sharing motor vehicles to increase the number of passengers per vehicle, thereby reducing per person user costs and vehicle miles traveled (VMT). Rideshare programs typically include programs that use databases to match riders with carpools or vanpools. Carpooling involves the use of participants’ own vehicles, whereas vanpooling involves the use of rented vans. The use of advanced “smart” technology to identify ride matches in real time—real-time ridesharing—is becoming more commonplace. Casual carpooling is another form of ridesharing that occurs under unique conditions, for example, on congested routes where there are incentives for high occupancy vehicles. Employer-based ridesharing programs are also common (see Mosaic program information sheet “Employer TDM” for more information).

What are the benefits?
- **Mobility**: Reduces VMT, which can ease congestion and also reduce per person user costs because the price of fuel, parking fees, and/or rental fees can be divided among multiple riders.
- **Accessibility**: Increases travel options by making ridesharing a more convenient and practical mode of travel.
- **Environmental**: Reduces VMT, which reduces air emissions and greenhouse gases.

Where is it being used?
There are ridesharing programs in cities throughout the U.S. and around the world. Examples of programs on the west coast include:

- **Drive Less. Connect** - Oregon Department of Transportation
- **Valley Vanpool** – Multiple Locations, Oregon
- **511 RideMatch Service** - San Francisco, CA
- **iCommute** – San Diego, CA
- **King County Metro Rideshare Operations** – King County, WA

Examples of dynamic, real-time ridesharing programs and applications include SideCar, Lyft, Zimride, and Ridejoy.

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2 https://www.oregonmetro.gov/tools-partners
3 http://www.sandag.org/
4 https://www.ltd.org/

In this summary, the best available data on program effectiveness is used. Whenever possible, information is provided for the referenced examples; however, that was not always available.
How effective is it?

The effectiveness of ridesharing programs can be measured on the basis of such factors as mode shift, reduction in VMT, and the amount of time that people continue to rideshare.

The following are the results of ridesharing programs that measured effectiveness:

- Between 2009 and 2011, Portland Metro’s Carpool Match Employer Outreach program reduced VMT by an estimated 13,044,000 to 19,565,000 (approximately 0.07% to 0.1% of regional VMT). During the same time period, the Metro Vanpool program reduced VMT by 3,804,307 (0.02% of regional VMT). This number is the result of coordinating an average of 19 vanpools and 147 riders per month.

- In a 2012 study of Let’s Carpool, a New Zealand-based ride matching program, the percentage of customers who reported carpooling as their main commute mode increased 15% after enrolling in the program, while the percentage of customers who reported driving alone decreased 7%.

- In 2003, two carpooling programs in the United Kingdom resulted in an average annual VMT reduction of 2,836 miles per program participant.

- According to a 2005 Transit Cooperative Research Program report on vanpools, the typical vanpool rider’s trip is 10 to 12 minutes longer compared with driving alone, but the tradeoff is reduced travel cost and stress. One-way vanpool trips were, on average, 24 to 54 miles long (signaling that vanpooling may be more important to reducing VMT than its low mode share might initially indicate). The report also found that slightly more than half of new vanpoolers had formerly commuted by auto.

- A 2002 assessment of the RIDES for Bay Area Commuters Program found that the average amount of time a customer used a new mode was 1.6 to 1.9 years; and 8% to 14% of all customers continued to use the new mode until they were no longer making the trip to work. People who traveled in vanpools used the new mode for the longest period of time (more than 3 years).

How much does it cost to implement?

From 2009 to 2011, Portland Metro's regional vanpool program cost $365,485 and achieved a cost effectiveness ratio of $.10 per vehicle mile reduced (VMR). Similarly, the Carpool Match Employer Outreach Program cost $363,937 and achieved a cost effectiveness ratio of $.02 to $.03 per VMR (both...
findings are based on total program costs, including Metro and local matching funds). See Table 1 for a comparison of programs.

### Table 1: Rideshare Programs

<table>
<thead>
<tr>
<th>Rideshare Program</th>
<th>Total Expenditures (FY 09/10 &amp; 10/11)</th>
<th>Vehicle Miles Reduced (low estimate)(^a)</th>
<th>Vehicle Miles Reduced (high estimate)(^a)</th>
<th>Cost Effectiveness ($ per VMR)(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpool Match NW</td>
<td>$363,937</td>
<td>13,043,506</td>
<td>19,565,260</td>
<td>$.02 - $.03</td>
</tr>
<tr>
<td>Metro Vanpool</td>
<td>$365,485</td>
<td>3,804,307</td>
<td>3,804,307</td>
<td>$.10</td>
</tr>
</tbody>
</table>


\(^a\) The VMR shows a “high” and a “low” estimate, assuming that only 40% to 60% of VMR reduced can be attributed to the program. VMR by vanpools was estimated from vanpool rider data, including the distance of vanpool trips.

\(^b\) Cost effectiveness estimated by Mosaic Program Guide authors is based on total expenditures (including Metro and local matching funds). The $ per VMR reported is based on the total costs and vehicle miles reduced reported over the 2-year study period.

In addition to VMR, the cost effectiveness of ridesharing programs has been assessed to consider other benefits such as reduced transit expenditures and environmental and safety benefits. For example, a recent study estimated that $30 million a year could be saved through casual carpooling during the morning commute on the Bay Bridge to San Francisco. This figure was based on the reduced costs of fewer bus purchases and paid bus drivers, as well as the value of time saved, lower emissions, and fewer accidents.

### Implementation resources

For more information on ridesharing programs, including incentives and benefits, technologies, federal funding sources, and a comprehensive list of local, statewide, national, and international rideshare programs and providers, the following resource is recommended:


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14. Note: Cost effectiveness estimated by Mosaic program guide authors is based on the report data; kilometers and GBPs were converted to miles and 2012 dollars, accordingly.