

Key Findings

1. In the Puget Sound region there are six transit agencies that provide vanpool programs.
2. Together, these Puget Sound transit agencies provide more than 1,700 daily vanpools and serve about 4.8 million passenger trips per year.
3. In Pierce County a vanpool group of nine, driving about 70 miles per work day, pays about \$87 per month, per passenger.
4. An average vanpool passenger commuting between Tacoma and Seattle would save about 28% compared to taking a bus, 45% compared to taking Sounder Commuter Rail and 61% compared to driving.
5. Vanpools are more flexible, faster and require less public subsidy than other, fixed route mass transit modes, like buses or rail.
6. Puget Sound area vanpool agencies reported passenger demand grew by 52% between 2000 and 2008

Vanpools in the Puget Sound Region

The case for expanding vanpool programs to move the most people for the least cost

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This is the second report in a four-part series on vanpooling in the Puget Sound region. You can find this report and the full series online at washingtonpolicy.org.

Part I: *The Vanpool Solution, A faster, cheaper and easier way to commute* (video)
Part II: Introduction & Background
Part III: Analysis of vanpool performance and market potential
Part IV: Recommendations

Executive Summary

As traffic congestion and the financial and environmental costs of commuting continue to rise, a once overlooked transit alternative has quietly become an *effective* option for many motorists: vanpooling.

Sharing a commute through a vanpool:

- Reduces parking and fuel costs
- Allows access to HOV lanes
- Consumes fewer resources
- Is cheaper, more flexible and faster than other mass transit choices

Regional growth projections and travel patterns show there is a large undeveloped market in vanpool demand. Yet, expanding vanpools is typically not a priority as other, more inefficient transit modes are marketed and funded. Vanpools are not for everyone and they cannot effectively serve short, intra-city transit demand. Ridership figures, costs and market potential in the Puget Sound region however, show that vanpools are a successful and more efficient way to move long-distance, intercity commuters.

Instead of spending more public money to connect cities with high speed rail, commuter rail, light rail and express bus services, policymakers should look to vanpools as the most efficient alternative.

Part I: Introduction and Background

In the Puget Sound region there are six transit agencies that provide vanpool programs: Community Transit, Intercity Transit, Island Transit, King County Metro, Kitsap Transit and Pierce Transit. The largest vanpool program is King County's, serving more than two million annual trips with 826 vans in operation.¹

The following table lists the six agencies in the Puget Sound region that provide vanpool services, the number of vans in operation and the number of unlinked passenger trips.²

Puget Sound Vanpool Programs, 2007

	Number of Vans in Operation	Number of Passenger Trips
King County Metro	826	2,322,012
Community Transit	313	740,451
Pierce Transit	270	788,868
Intercity Transit	150	532,644
Kitsap Transit	118	300,035
Island Transit	53	183,116

Source: National Transit Database, Island Transit officials

Together, these Puget Sound transit agencies provide more than 1,700 daily vanpools and serve about 4.8 million passenger trips per year.

A vanpool consists of a group of passengers who share a single van to commute to and from work. Vanpools work well for intercity transit and connect low density suburban communities with employment centers like downtown Seattle, Bellevue or a Boeing plant. In Washington State, vanpools are managed by public transit agencies, although in most other states, like California and Virginia, individuals or private companies provide similar services.

In the Puget Sound region, a vanpool must have at least five riders (four passengers and one driver) and can carry up to 15 total passengers. Groups can form by themselves or individuals can find existing vanpools to join. Most transit agencies offer rideshare forums and services to connect vanpools with users. For example, King County provides an online forum, similar to the "help wanted" section of a newspaper, where potential passengers can plug in their desired origin and destination to find possible matches. There is also a regional clearinghouse of agencies, called RideshareOnline.com, that connects prospective users with vanpools from various agencies across Washington State and Idaho.

Vanpool groups can travel across county lines and distances can vary between 20 to 150 miles per day, depending on the group's origin and destination. Nationally, vanpool programs report an average daily round trip within a range of 48-108 miles.³ These long distances are typical of ridesharing programs and reveal that vanpools are almost exclusively used by commuters travelling from home to

¹ "NTD Data - Historical Data Bases, Annual Data Bases," individual agency profiles for 2007, National Transit Database, Federal Transit Administration, at www.ntdprogram.gov/ntdprogram/data.htm.

² "NTD Data - Historical Data Bases, Annual Data Bases," individual agency profiles for 2007, National Transit Database, Federal Transit Administration, at www.ntdprogram.gov/ntdprogram/data.htm. Island Transit does not report agency data to the National Transit Database. Island Transit data was obtained through agency officials.

³ "Vanpools and Buspools, Traveler Response to Transportation System Changes," John Evans, Transit Cooperative Research Program Report 95, Transportation Research Board, Federal Transit Administration, 2005, page 35, at www.onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_rpt_95c5.pdf.

work or to other common employment centers.

Passengers can either be picked up at home or groups can meet at central locations that have easy access to parking. For example, some groups make arrangements with large retail stores that have excess parking spaces available.

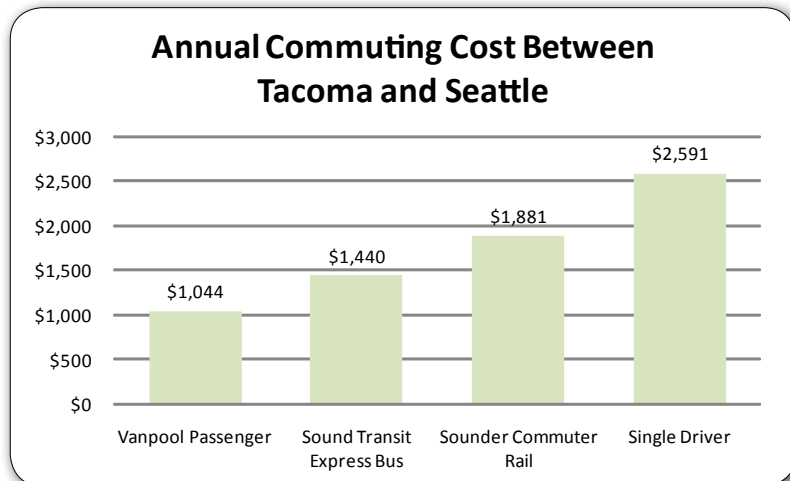
Vanpool drivers have additional responsibilities. These include arranging for routine maintenance, buying gas and other logistical support. Drivers are also responsible for overnight and weekend parking, which is usually at their home. In exchange for these added obligations, transit agencies typically offer drivers free or reduced fares and in some cases limited personal use of the van.

Passengers are charged monthly fares that vary depending on the group size, fuel prices and distance travelled. Fares can range between \$60 and \$200 per month. In Pierce County for example, a vanpool group of nine, driving about 70 miles per work day, pays about \$87 per month, per passenger.⁴ Adding more passengers would spread the cost over more payers and cause the individual monthly fare for that group to fall. Likewise, fewer passengers or longer commutes cause fares to increase. Fares generally also include the cost of fuel, van maintenance and insurance, which means most of the operating costs are covered by the users.

Most agencies and large employers also provide Guaranteed-Ride-Home programs to ensure passengers who miss their regularly-scheduled vanpool will have other travel options for the commute home.

The Benefits of Vanpools

Vanpooling provides several benefits. Vanpool groups gain access to HOV lanes, reduced ferry rates, preferential parking and free or reduced parking rates depending on the employer. Some employers offer monthly compensation directly to their employees who commute with a vanpool. Costco for example, pays its employees who participate in a vanpool program \$60 per month.⁵



⁴ "Commuter Vanpool Fares," Pierce County Transit, Effective October 1, 2008, at www.piercetransit.org/rideshare/farechart.pdf.

⁵ "Metro's Vanpool program getting more popular all the time," News Center DOTcast, King County Metro, June 3, 2008, at: www.kingcounty.gov/transportation/kcdot/NewsCenter/DOTcast/MetroTransit/060308_vanpoolemployers.aspx.

Users also enjoy cheaper commuting costs. In 2009, the American Automobile Association (AAA) estimates the cost of owning and operating a medium size passenger vehicle in the United States is .54 cents per mile.⁶ This means the annual cost of owning a car and using it to travel about 70 miles each work day, which is about the same roundtrip distance between Tacoma and Seattle, would be about \$9,072 per year.⁷

AAA's annual estimate however, includes both driving costs and ownership costs. In this case, ownership costs are generally considered fixed because an average person likely would not sell his passenger car because he decided to use public transit to commute to work.

AAA also estimates operating costs separate from ownership costs, which in 2009 is 15.42 cents per mile.⁸ So for a 70 mile commute between Tacoma and Seattle the average driver would pay operating costs of about \$2,591 per year.

A person riding a Sound Transit Express bus also between Tacoma and Seattle would pay about \$1,440 per year.⁹ A person riding the Sounder Commuter Rail regularly between Tacoma and Seattle could purchase an annual pass at a discounted rate of \$1,881.¹⁰

In comparison, a vanpool group in Pierce County, with nine passengers who also travel the 70 miles per work day between Tacoma and Seattle, would each pay about \$1,044 annually.¹¹

This means an average vanpool passenger commuting between Tacoma and Seattle would save about 28 percent compared to taking a bus, 45 percent compared to taking Sounder Commuter Rail and 61 percent compared to driving.

By sharing a commute, vanpoolers help the environment and help reduce traffic congestion. In 2008, there were about 2,360 commuter vans, with an average of 8.14 passengers per van, in use across Washington State.¹² Subtracting the driver and assuming all of these users would otherwise be driving to work alone, vanpools shifted nearly 17,000 cars off the roadway every day last year. This reduces fuel consumption, emits fewer greenhouse gas emissions and lessens roadway demand on an already constrained system. In 2006, vanpools in Washington carried over 6.7 million passenger trips, reduced single occupant vehicle miles by 23.8 million and saved 9.5 million gallons of fuel.¹³

⁶ "Your Driving Costs, How much are you really paying to drive?," 2009 edition, American Automobile Association, 2009, at www.aaanewsroom.net/Assets/Files/20093271039350.DrivingCosts2009.pdf.

⁷ Based on 240 work days per year.

⁸ "Your Driving Costs, How much are you really paying to drive?," 2009 edition, American Automobile Association, 2009, at www.aaanewsroom.net/Assets/Files/20093271039350.DrivingCosts2009.pdf.

⁹ Based on Sound Transit Express bus fares between Tacoma and Seattle, as of September, 2009. Assumes \$3 per segment, two segments per day, twenty days per month, twelve months per year.

¹⁰ Based on Sound Transit fares using a Puget Pass between Tacoma and Seattle, as of September, 2009. The fare schedule is available online at www.soundtransit.org/x1850.xml. The annual cost of purchasing a normal Sounder ticket between Tacoma and Seattle (twenty days per month) would be \$2,280.

¹¹ Based on Pierce Transit's most recent vanpool fare schedule, updated October 1, 2008. Available online at www.piercetransit.org/rideshare/farechart.pdf. Unless a vanpool user divested one household vehicle, the differences here are not true savings because there are several fixed costs that are associated with owning a car. Nevertheless, the comparison is useful to show the annual cost of driving 70 miles to work versus using a vanpool to cover the same distance.

¹² "Vanpool Investment Program," Washington State Department of Transportation, June, 2008, page 2, at www.ecy.wa.gov/climatechange/2008CATdocs/IWG/tran/tran_VMT04_ClimateVanpoolBriefing_V08.pdf.

¹³ "Vanpool Investment Program," Commute Trip Reduction 2007 Report to the Washington State Legislature, Washington State Department of Transportation, 2007, page 1, at www.wsdot.wa.gov/NR/rdonlyres/78774733-2E96-48E3-9CEC-237C5B1848BA/0/Vanpool.pdf.

Vanpools are also more flexible, faster and require less public subsidy than other, fixed route mass transit modes, like buses or rail.

Longer, regional transit networks generally require travel to centralized entry points like Park-n-Ride lots, train stations or through a system of bus stops and feeder routes, to gain initial access to the system. Once on board, passengers are taken to centralized drop off stations. If the final destination is not within walking distance, passengers must rely on transfers and reverse feeder routes to complete the trip.

These intercity mass transit networks require expensive infrastructure and annual operating costs, most of which are paid with higher public taxes. These systems also lead to longer door-to-door commute times and discourage all but the most loyal transit users.

Vanpool programs, on the other hand, require very little capital investment and user fees generally cover most, if not all, annual operating expenses. Except for purchasing vans, this means no public taxes are used to pay for expensive transit stations, rail lines, drivers or train cars. And since vanpool users pay most of the program's operating costs, public subsidies are minimal, leaving scarce tax revenues available for other services. Vanpools also offer faster travel times because they can use HOV lanes, do not make as many stops and eliminate the need for time-consuming transfers. An added benefit to society is avoiding work-stoppages and labor disputes. Vanpool drivers never go on strike.

Regional Growth in Vanpool Use

Vanpool use is becoming more popular. Puget Sound area vanpool agencies reported passenger demand (as measured in unlinked trips) grew by 52 percent between 2000 and 2008.¹⁴

Even more remarkable is the recent growth in vanpool ridership. Vanpools are used almost exclusively by commuters traveling to and from work. This means vanpool use would appear to be sensitive to regional unemployment rates.

In the first quarter of 2008, when unemployment was hovering around traditional levels (between four and five percent), the six vanpool agencies in the Puget Sound region accounted for about 1.3 million passenger trips.¹⁵ Despite a global recession and unemployment rates doubling to nearly 10 percent the following year, passenger demand in the first quarter of 2009 grew to about 1.5 million trips, an astounding 16 percent increase.¹⁶ In comparison, the same six transit agencies experienced a combined 0.2 percent decrease in bus ridership over the same time period.¹⁷

¹⁴ Data collected from the American Public Transportation Association's quarterly ridership report archives, 2000-2008, at www.apta.com/resources/statistics/Pages/RidershipArchives.aspx. Pierce Transit's ridership was not included in the APTA 2008 fourth quarter report. Pierce County's 2008 ridership data was obtained from its annual "Report to the Community," 2008, page 1, at <http://www.piercetransit.org/pdfs/ReportToCommunity1.pdf>. Island Transit data was obtained from Island Transit officials.

¹⁵ Ridership compares growth between the first quarter of 2008 and the first quarter of 2009. Data collected from the American Public Transportation Association's quarterly ridership report archives, First Quarter 2008 & First Quarter 2009, at www.apta.com/resources/statistics/Pages/RidershipArchives.aspx. Island Transit data was obtained from Island Transit Officials.

¹⁶ Ibid.

¹⁷ Ibid.

Conclusion

Vanpooling is an effective and functional option for intercity travel and its popularity is growing. Users are able to share the monthly costs of commuting with other passengers and lower their own commuting expenses. Vanpooling is much cheaper and more flexible than fixed route mass transit like buses and rail. This flexibility leads to meaningful benefits that are attractive to potential users. The next report in this series will show how these competitive advantages translate to better performance and indicate there is a large, undeveloped market for future growth.

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