

# PUBLIC TRANSIT IN MONTANA

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MPI 02-10, JULY 2010



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## EXECUTIVE SUMMARY

URBAN PUBLIC TRANSIT is often considered the most cost effective and energy efficient means of transportation available, but this perception doesn't hold true in rural states like Montana. When compared to driving private automobiles, public transit in Montana costs more and takes a greater toll on the environment per passenger mile than does driving that same mile in an average light truck or SUV. In addition, low fares and high subsidies on public transit systems throughout the state contribute to the taxpayer burden for each trip taken and siphon funds from public roads. These costs are imposed for a system that Montanans use to fulfill far less than ten percent of their travel needs, despite the fact that it's cheap or even "free" to the rider.

The cost per passenger mile of driving in Montana is substantially lower than that of public transit, and is mostly borne by the person doing the driving. Contrary to popular belief, there are few federal or state subsidies to highways. To the extent that subsidies do exist, local governments are the primary source.

The average cost of driving in the United States—including subsidies

—is less than 22 cents per passenger mile. Montanans spend a little under 23 cents, or just slightly above average and still well below the cost of public transportation. The average cost of public transit, meanwhile, is more than 90 cents per passenger mile nationally, with more than 75% of that cost subsidized by non-transit users. Montana transit riders pay on average less than 40 cents each time they ride the bus, while taxpayers kick in an average of more than five dollars to support each of those rides.

Public transit also has a heavy cost on the environment. Urban buses use more energy than private vehicles and release more than twice the carbon emissions into the atmosphere. Montanans who are concerned about either public expenditures or climate change should clearly be looking for alternatives to traditional urban transit models.

There are many options available to help decrease the costs and environmental impacts of public transit in Montana. Removing state and federal government bias toward high cost, high emissions vehicles and allowing communities to tailor their transit programs to local conditions should be one of the first steps toward creating more cost effective and environmentally friendly systems. Some options include smaller vehicles or shared taxis, privatization, and vouchers. These changes would allow public transit systems to become more cost effective, decrease their negative environmental impacts, and ultimately save taxpayers millions of dollars.



## PUBLIC TRANSIT IN MONTANA

*Public transit is often portrayed as a low-cost, energy-efficient alternative to auto driving.<sup>1</sup> In fact, transit is much more costly than driving, and requires huge subsidies to attract any riders at all. Moreover, transit systems in the vast majority of American cities use more energy and emit more greenhouse gases than the average car.<sup>2</sup>*

*For every dollar collected in fares from transit riders, the average transit system in America requires more than \$2 from taxpayers for operating subsidies plus more than \$1 for capital improvements and maintenance.<sup>3</sup> So it is not surprising that transit systems in Montana require large subsidies. What may be surprising is that they are also far less environmentally friendly than a typical sports utility vehicle.*

### The Cost of Driving

Americans drive for 85 percent of their travel (and Montanans for more than 90 percent) not because we are somehow addicted to the automobile but because autos are both more convenient and less expensive than most of the alternatives. Unlike transit buses, trains, or airplanes, automobiles make it possible for people to go where they want to go when they want to go there.

According to the Bureau of Economic Analysis, Americans spent \$950 billion buying, operating, and maintaining their cars and light trucks in 2008.<sup>4</sup> That's a lot of money, but those cars and light trucks also carried us nearly 4.5 trillion passenger miles, for an average cost of less than 22 cents per passenger mile.<sup>5</sup>

Contrary to popular belief, there are few federal or state subsidies to highways. Since at least 1956, almost all federal highway funds have come from federal gas taxes and other highway user fees.<sup>6</sup> (Recent appropriations of general funds to the highway trust fund were needed only because Congress diverted more gas taxes to transit than were being collected.)

Still, due to allocation formulas that favor states with low population densities, Montana highways receive some federal subsidies from highway users in other states. In 2007, Montana highway users paid about \$180 million in federal user fees, but the state received

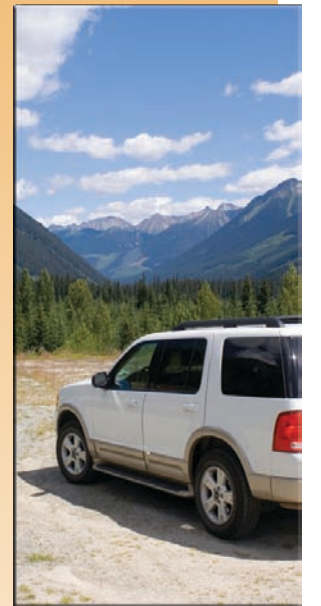
just over \$300 million in highway funds from the federal government.<sup>7</sup>

State subsidies to highways are also limited. Montana does spend some general funds on highways, but they do not make up for the fact that nearly half of Montana's state gas taxes are diverted to mass transit and other non-highway purposes. In 2007, Montana diverted about \$88 million state highway user fees to non-highway uses while it spent \$15 million in general funds on highways. Highway users therefore paid about \$73 million more in user fees than they received back in highway spending.<sup>8</sup>

The main subsidies to highways come from local governments, many of which do not collect gas taxes or other highway user fees. In 2007, Montana local governments collected about \$36 million in gas taxes about \$8 million of which were diverted to other uses. Local governments also spent about \$190 million in general funds on roads, for a net local subsidy of about \$182 million.<sup>9</sup>

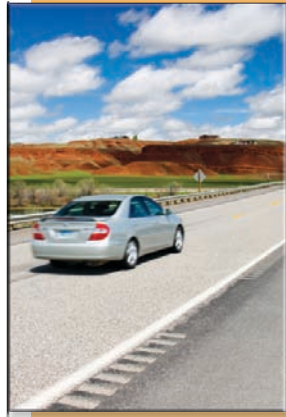
After accounting for all federal, state, and local subsidies and diversions of gas taxes to non-highway uses, the net subsidies to Montana auto users amounted to about \$232 million in 2007. Since Montanans traveled about 18 billion passenger miles by auto in 2007, this works out to about 1.3 cents a passenger mile, which means the total cost of driving in Montana is less than 23 cents a passenger mile.<sup>10</sup>

*Public transit requires high subsidies and is far less environmentally friendly than a sports utility vehicle.*



*Few federal or state subsidies go into highways.*

*Montana diverted about \$88 million state highway user fees to non-highway uses.*



Taxpayers pay more than \$5 to support one passenger's trip on public transit.



Montana transit systems recoup less than 10% of operating costs from fares.

TABLE ONE

2008 Costs and Subsidies Per Passenger Mile and Per Trip

	Cost/PM	Subsidy/PM	Cost/Trip	Subsidy/Trip
<b>Bus</b>				
Billings	\$1.69	\$1.60	\$5.58	\$6.27
Bozeman	0.72	0.72	2.31	2.31
Great Falls	3.09	2.78	5.84	6.34
Missoula	1.42	1.29	4.46	4.92
State average	1.76	1.64	5.70	5.31
<b>Paratransit</b>				
Billings	3.13	2.35	17.03	12.81
Great Falls	5.17	4.39	14.08	11.95
Missoula	7.21	5.14	24.04	17.12
State average	3.77	2.85	16.49	12.45
<b>Driving</b>				
Montana	0.23	0.01	0.74	0.03

**Sources:** Transit from 2008 National Transit Database, operating expense, capital cost, and service spreadsheets. Bozeman transit from the Bozeman Human Resources Development Council (HRDC); the HRDC does not have passenger mile data, so these numbers assume trip lengths of 3.2 miles, equal to the average for Montana transit. Driving from Bureau of Economic Analysis, "Personal Incomes Expenditures by Type of Expenditure," Table 2.5.5 and Highway Statistics 2008, Table VM-1. Per-trip numbers for driving assume trip lengths of 3.2 miles, equal to the average for Montana transit.

The Cost of Transit

By comparison, the national average cost of public transit is more than 90 cents a passenger mile, more than 70 cents of which is subsidized by non-transit users. In Montana, the costs are much higher: well over a dollar a passenger mile.<sup>11</sup>

Most transit agencies do not even pretend to try to cover their operating costs, much less their capital costs, with passenger fares. The Bozeman "Streamline" transit system does not even charge fares. Transit agencies in Billings, Bozeman, Great Falls, and Missoula spent nearly \$8.9 million operating buses in 2008, but collected less than \$800,000 in fares.<sup>12</sup>

In addition to the annual operating costs, transit subsidies include the capital costs of buying buses and other facilities. Capital costs fluctuate tremendously from year to year as transit agencies receive federal grants to replace large segments of their bus fleets in some years and make few capital purchases in other years.

The Federal Transit Administration has published cost data for almost every transit agency from 1992 through 2008, providing 17 years' worth of capital cost data.<sup>13</sup> After adjusting for inflation, the average of these 17 years provides a reasonable approximation of annual capital costs. These capital costs add another \$2.2 million to the cost of Montana transit, for a total loss of nearly \$10 million. When these costs are added to the operating costs, fares covered just 9 percent of Missoula's transit costs, and less than 8 percent of Billings' and Great Falls' costs.

Overall, the subsidies average well over \$1 per passenger mile. Montana transit riders pay an average of less than 40 cents every time they board a bus, while taxpayers pay an average of more than \$5 to support that trip. This counts only regular buses; the subsidies to paratransit service for elderly and disabled travelers are much greater, averaging close to \$3 per passenger mile and more than \$12 per trip.

TABLE TWO

Energy Consumption and Carbon Dioxide Emissions Per Passenger Mile

	BTUs	Pounds CO <sub>2</sub>
<b>Bus</b>		
Billings	7,963	1.29
Bozeman	6,914	1.12
Great Falls	19,739	3.19
Missoula	6,315	1.02
State average	8,694	1.40
<b>Paratransit</b>		
Billings	11,975	1.87
Great Falls	16,222	2.54
Missoula	22,982	3.68
<b>State Average</b>		
Driving		
Average light truck	4,016	0.69
Average car	3,514	0.55
Toyota Prius	1,659	0.26

**Source:** Transit BTUs calculated from 2008 National Transit Database, energy consumption spreadsheet. Bozeman transit from the Bozeman Human Resources Development Council (HRDC); the HRDC does not have passenger mile data, so these numbers assume trip lengths of 3.2 miles, equal to the average for Montana transit. Car and light truck BTUs from Stacy C. Davis and Susan W. Diegel, *Transportation Energy Data Book: Edition 28* (Oak Ridge, TN: U.S. Department of Energy, 2009), Table 2.13, [tinyurl.com/lykhfvuu](http://tinyurl.com/lykhfvuu); Toyota Prius from Environmental Protection Agency, Model Year 2008 Fuel Economy Guide

Transit's Environmental Costs

The environmental benefits of transit hardly make up for its costs. In most cases, there are no environmental benefits, only costs. As shown in Table 2, driving is far more energy efficient, and far less polluting, than any transit system in Montana. Those who want to save energy and reduce pollution would do far better encouraging people to drive more fuel-efficient cars than encouraging cities to expand transit service.

A crucial part of energy efficiency is filling seats. The average transit buses in Montana fill less than one-sixth of their seats, and counting standing room they operate an average of less than one-tenth full.<sup>14</sup>

While urban transit buses tend to be less energy efficient than light trucks, intercity buses are among the most energy-efficient vehicles in America. They pay slightly lower fuel taxes than auto users, but otherwise require little or no subsidy. They tend to be at least as energy efficient and emit as little pollution per passenger mile as the most efficient cars on the road.<sup>15</sup> The reason is that intercity buses are private and operate where people want to go, tending to fill at least half to two-thirds of the seats. Urban buses are public and operate where the taxpayers are, even if that means running buses to neighborhoods that have few potential riders.



Transit systems in Montana emit twice the carbon per passenger mile as a light truck.

Average transit buses in Montana operate at less than 10% full capacity

Congress incentivizes high cost forms of transit and discourages more efficient forms.



Private carriers can operate at capacity and have routes on demand rather than scheduled.

Vouchers would empower consumers and increase efficiency.

## Fixing Public Transit

Transit agencies could do several things to provide better transit at a lower cost. One of the major obstacles to change is that Congress has, intentionally or not, given transit agencies incentives to choose high-cost forms of transit. Once these incentives are changed, it will be easier for transit agencies to adopt some or all of the following policies.<sup>16</sup>

**Smaller vehicles**—A major urban area sees millions of passenger trips each day from hundreds of thousands of different origins to hundreds of thousands of different destinations. No more than a tiny fraction of these trips will ever be taken by “big box” forms of transit such as trains or large buses. The average Montana transit bus has 31 seats, yet carries an average of less than 4 people. Smaller vehicles can save energy and nimbly serve more parts of each urban area.

**Contracting out**—Hiring private companies to operate buses and other transit vehicles can save taxpayers millions and/or spread available resources to more transit routes. Denver contracts out half of its bus services, and it pays only 52 percent as much per vehicle mile for the contracted service as it spends on buses it operates itself.<sup>17</sup> The main obstacle to contracting out services is generally union opposition, even though some contracting companies are unionized and pay scales are comparable.

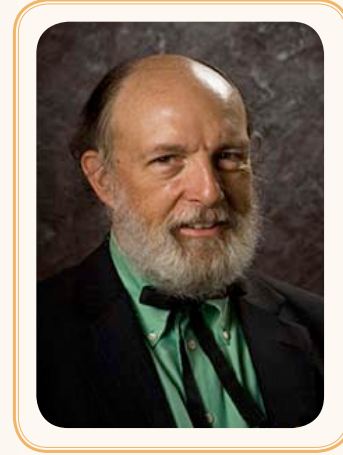
**Jitneys**—Also known as shared taxis, jitneys are a combination of taxis and buses. They tend to be privately owned vehicles operating on fixed or semi-fixed routes. The airport shuttles found in most American urban areas are a form of a jitney, but one that can only start or end at the airport. Opening up urban areas to competitive jitney services would allow more people to take advantage of door-to-door or near-door-to-door services at a lower cost than taxis. The main opponents are taxi companies, but they could in fact become major jitney operators. A private party in Houston has recently started a jitney service called the “Wave.”<sup>18</sup>

**Privatize**—Transit agencies could take the ultimate step of selling their assets to private operators, restoring the system that prevailed in most American cities before Congress gave cities incentives to take over private transit companies in 1964. The private operators would have incentives to find the optimal sized vehicle for each route and to run transit where people want to use it, not in every suburb that pays taxes to the transit agency. The United States still has a few private transit services that operate largely without subsidies, including the Atlantic City Jitney Association, New York Waterway, and *publicos* (jitneys) in Puerto Rico.

**Vouchers**—Transit is important to people who have no access to cars. But such people are rare: close to 95 percent of Montana households have at least one car, so even people who can’t drive usually have someone in the household who can drive for them.<sup>19</sup> Instead of funding expensive transit agencies to serve those few who still lack automobility, state and local governments could give transportation vouchers/stamps to people who are too young, too old, or otherwise unable to drive. These vouchers could be applied to any public conveyance: taxis, private shuttle buses, intercity buses, Amtrak, or the airlines. This would give people the mobility they need at a much lower cost to taxpayers.

### Conclusion:

Many people think that a major goal for transit is to persuade people to get out of their car and drive less. Considering that the transit systems we know today are more expensive, less convenient, and have greater environmental impacts than driving, this goal is self-defeating. The changes described above could save Montana taxpayers millions of dollars while truly improving transit services for most people.



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