

Growth & Justice Policy Brief

High-mileage Minnesota Could Benefit from Reductions in Roadway Travel

By Matt Kane, October 2008

Smart InvestmentsSM in Transportation for Minnesota

Minnesotans drive significantly more than the national average and the state would benefit from efforts to reduce vehicle travel on Minnesota's roadways without undermining economic growth.

Growth & Justice, the center for a prosperous, fair and sustainable Minnesota economy, is analyzing transportation issues and trends for its initiative on *Smart InvestmentsSM in Transportation for Minnesota*. The research presented here on vehicle miles traveled was compiled as background for that project.

Motor vehicles travel more than 56.5 billion miles a year on roadways throughout Minnesota, or 10,940 miles for each woman, man and child in the state. At that level, Minnesota's per capita vehicle miles traveled exceed the national average by 9 percent. (See data table on p. 4)

Driving Too Much?

Do Minnesotans drive too much? Put in the context of broad-based and growing concerns about congestion, transportation costs and environmental impacts, the simple answer is yes. And the existing transportation system offers few alternatives to driving. **The vehicle miles traveled in Minnesota over the 20-year period from 1986 to 2006 shot up 67 percent, at a time when the state's population rose by 23 percent.** The dramatic increase in miles driven has strained Minnesota's transportation infrastructure, has made traffic jams commonplace in major metro areas, and has adversely affected air and water quality.

Transportation, of course, is an important input for a wide range of economic activity. Workers need to reach their places of employment, for example, and goods must move efficiently throughout the state and beyond. So efforts to reduce vehicle miles in Minnesota should not undermine economic growth.

Interestingly the most recent and comparable data show that the level of economic output produced in Minnesota per vehicle mile of travel (VMT) trails slightly behind the national average, with Minnesota at \$4.28 in gross domestic product (GDP) per VMT and the 50 states together averaging \$4.33. **Minnesota falls below the national level for GDP per VMT not because of lagging economic activity but rather because of greater-than-average miles of**

driving. Indeed Minnesota's GDP per capita, at \$46,850, exceeds the national average by 7 percent.

But it remains difficult to determine with certainty whether or not roadway travel in Minnesota lies outside the norm because of the complex factors that affect transportation patterns. Take density, by way of example. Dense concentrations of people, businesses and other destinations generally reduce the need for travel and make more transit service feasible, which in turn can lower vehicle miles traveled.

Density presents transportation challenges for Minnesota, which at 65 persons per square mile in 2007 ranks 31st among states for population density on a scale of first being the most densely populated state and 50th the least. The population density of all 50 states together stands at 85 persons per square mile. And density levels in many states far exceed both the national level and Minnesota's – for example, New Jersey has 1,171 persons per square mile.

Reducing Roadway Travel

The operative question for Minnesota may be less one of where the state stands vis-à-vis the nation or other individual states when it comes to vehicle miles traveled and more one of how Minnesota can reduce driving without undermining growth, regardless of how it stacks up against a national benchmark.

Minnesota needs to explore smart strategies for reducing miles traveled on roadways throughout the state. **The potential benefits of driving less include reduced congestion pressures in crowded urban corridors for workers, freight and residents; decreased costs for travelers, who now pay much higher gas prices than in recent years; and a drop in emissions of climate-changing greenhouse gases, released when carbon-based fuel is burned to power cars and trucks.** On this last point, the Minnesota Climate Change Advisory Group, appointed by Gov. Pawlenty, recommended action to reduce vehicle miles traveled as an important element of its 2008 policy proposals for how to cut greenhouse gases and enhance energy and economic policy in Minnesota.

Some of the options for reducing roadway travel include land use and development changes to increase the density of jobs and housing, expanded and improved transit service and rideshare arrangements, better connectedness for roads and pathways, increased walking and biking, greater use of telecommuting by Minnesota's businesses and their workers, preservation of farmland and open space to curb sprawl, and the use of automobile fees, taxes and parking charges to encourage approaches other than single-passenger car travel.

In Minnesota some of those options already are promoted or used to some extent, and others have been recommended or are under study or development. But much more can and should be done to secure positive reductions in vehicle miles traveled. More must be done, too, to determine which options will work best for Minnesota, in a fair way and at the least cost.

Smart InvestmentsSM in Transportation for Minnesota

Growth & Justice is exploring travel issues for the state as part of its project on *Smart InvestmentsSM in Transportation for Minnesota*. The project uses evidence-based research to identify cost-conscious ways to spur sustainable economic growth for the state and expanded economic prosperity for Minnesotans through smart transportation investments, policies and choices. Project staff is identifying options and strategies to better connect Minnesotans to jobs and other important destinations, improve travel times for people and goods, and minimize energy consumption and adverse environmental impacts.

Data note: *For the analysis presented here, Growth & Justice used data from the Federal Highway Administration (FHWA) for annual motor vehicle miles traveled, the U.S. Bureau of Economic Analysis for state gross domestic product, and the Census Bureau for population and land area. The FHWA's most recent data for miles traveled, as of October 2008, are for 2006, so Growth & Justice also used 2006 numbers for population and gross domestic product to stay consistent. However population density levels are based on 2007 population estimates and 2000 land area data. For this analysis, national levels are based on totals for the 50 states only. For the numbers, see the data table on the next page.*

Travel, Economic Output & Population Density

| | 2006 Annual Vehicle Miles (in millions) | 2006 Per Capita Vehicle Miles ¹ | 2006 Gross Domestic Product ² (in millions \$s) | 2006 Per Capita Gross Domestic Product ¹ | 2006 Gross Domestic Product per Vehicle Miles | 2007 Pop. Density in Persons per Square Mile ³ |
|-----------------------|---|--|---|--|--|--|
| Minnesota | 56,518 | 10,940 | \$242,095 | \$46,850 | \$4.28 | 65 |
| 50-state Total | 3,010,493 | 10,070 | \$13,031,763 | \$43,820 | \$4.33 | 85 |
| Alabama | 60,414 | 13,140 | \$158,566 | \$34,480 | \$2.62 | 91 |
| Alaska | 4,967 | 7,410 | \$43,117 | \$64,350 | \$8.68 | 1 |
| Arizona | 62,468 | 10,130 | \$237,397 | \$38,500 | \$3.80 | 56 |
| Arkansas | 33,007 | 11,740 | \$90,864 | \$32,330 | \$2.75 | 54 |
| California | 327,478 | 8,980 | \$1,742,172 | \$47,790 | \$5.32 | 234 |
| Colorado | 48,641 | 10,230 | \$226,266 | \$47,600 | \$4.65 | 47 |
| Connecticut | 31,743 | 9,060 | \$204,964 | \$58,480 | \$6.46 | 723 |
| Delaware | 9,442 | 11,060 | \$59,589 | \$69,820 | \$6.31 | 443 |
| Florida | 203,741 | 11,260 | \$716,505 | \$39,610 | \$3.52 | 338 |
| Georgia | 113,532 | 12,120 | \$376,410 | \$40,200 | \$3.32 | 165 |
| Hawaii | 10,182 | 7,920 | \$58,676 | \$45,640 | \$5.76 | 200 |
| Idaho | 15,198 | 10,360 | \$48,441 | \$33,030 | \$3.19 | 18 |
| Illinois | 106,869 | 8,330 | \$583,990 | \$45,510 | \$5.46 | 231 |
| Indiana | 71,215 | 11,280 | \$238,693 | \$37,810 | \$3.35 | 177 |
| Iowa | 31,355 | 10,510 | \$121,945 | \$40,890 | \$3.89 | 53 |
| Kansas | 30,215 | 10,930 | \$110,645 | \$40,030 | \$3.66 | 34 |
| Kentucky | 47,742 | 11,350 | \$146,415 | \$34,810 | \$3.07 | 107 |
| Louisiana | 45,417 | 10,590 | \$203,167 | \$47,380 | \$4.47 | 99 |
| Maine | 15,044 | 11,380 | \$46,340 | \$35,060 | \$3.08 | 43 |
| Maryland | 56,302 | 10,030 | \$257,577 | \$45,870 | \$4.57 | 575 |
| Massachusetts | 55,136 | 8,570 | \$335,313 | \$52,090 | \$6.08 | 823 |
| Michigan | 104,184 | 10,320 | \$375,759 | \$37,220 | \$3.61 | 177 |
| Minnesota | (SEE ABOVE) | | | | | |
| Mississippi | 41,498 | 14,260 | \$84,586 | \$29,060 | \$2.04 | 62 |
| Missouri | 68,834 | 11,780 | \$220,092 | \$37,670 | \$3.20 | 85 |
| Montana | 11,265 | 11,930 | \$31,994 | \$33,870 | \$2.84 | 7 |
| Nebraska | 19,415 | 10,980 | \$75,290 | \$42,580 | \$3.88 | 23 |
| Nevada | 21,824 | 8,750 | \$123,054 | \$49,310 | \$5.64 | 23 |
| New Hampshire | 13,614 | 10,350 | \$56,073 | \$42,640 | \$4.12 | 147 |
| New Jersey | 75,371 | 8,640 | \$448,426 | \$51,400 | \$5.95 | 1,171 |
| New Mexico | 25,787 | 13,190 | \$72,161 | \$36,920 | \$2.80 | 16 |
| New York | 141,348 | 7,320 | \$1,028,320 | \$53,260 | \$7.28 | 409 |
| North Carolina | 101,515 | 11,460 | \$380,932 | \$43,010 | \$3.75 | 186 |
| North Dakota | 7,890 | 12,410 | \$25,851 | \$40,650 | \$3.28 | 9 |
| Ohio | 111,247 | 9,690 | \$451,600 | \$39,340 | \$4.06 | 280 |
| Oklahoma | 48,689 | 13,600 | \$130,094 | \$36,350 | \$2.67 | 53 |
| Oregon | 35,483 | 9,590 | \$150,984 | \$40,800 | \$4.26 | 39 |
| Pennsylvania | 108,278 | 8,700 | \$508,769 | \$40,900 | \$4.70 | 277 |
| Rhode Island | 8,300 | 7,770 | \$45,733 | \$42,840 | \$5.51 | 1,012 |
| South Carolina | 50,199 | 11,620 | \$146,211 | \$33,840 | \$2.91 | 146 |
| South Dakota | 9,168 | 11,720 | \$32,008 | \$40,940 | \$3.49 | 10 |
| Tennessee | 70,596 | 11,690 | \$235,753 | \$39,040 | \$3.34 | 149 |
| Texas | 238,256 | 10,140 | \$1,068,119 | \$45,440 | \$4.48 | 91 |
| Utah | 25,964 | 10,180 | \$97,963 | \$38,420 | \$3.77 | 32 |
| Vermont | 7,832 | 12,550 | \$23,628 | \$37,870 | \$3.02 | 67 |
| Virginia | 81,095 | 10,610 | \$368,604 | \$48,230 | \$4.55 | 195 |
| Washington | 56,517 | 8,840 | \$291,298 | \$45,550 | \$5.15 | 97 |
| West Virginia | 20,885 | 11,480 | \$56,016 | \$30,800 | \$2.68 | 75 |
| Wisconsin | 59,398 | 10,690 | \$223,394 | \$40,200 | \$3.76 | 103 |
| Wyoming | 9,415 | 18,280 | \$29,904 | \$58,070 | \$3.18 | 5 |

¹Because the federal government rounds data for motor vehicle miles and gross domestic product to the nearest million, the per capita levels presented here have been rounded to the nearest \$10 in order to show significant differences only. The calculations for GDP per capita are based on current 2006 dollars and therefore differ from the per capita levels provided by the U.S. Bureau of Economic Analysis based on 2000 chain-weighted levels. Amounts listed here cannot be compared to amounts from other years without first adjusting for price changes using chained dollars.

²Gross domestic by state is the value added in production by the labor and capital located in a state.

³Population density calculations are based on Census 2000 data on land area in square miles -- the most recent data available -- and Census Bureau estimates for state populations in July 2007.

Sources: Federal Highway Administration, U.S. Bureau of Economic Analysis and the U.S. Census Bureau.