HOW TO CALCULATE:
@ 8 h

You will need three pieces of data to calculate the impact of Wisconsin:

1. average miles driven per licensed driver
2. average miles per gallon per vehicle
3. number of licensed drivers in the county

The data you will need is available from the following three sources:

1. Federal Highway Administration, *Our Nation's Highways: 2010*
2. Bureau of Transportation Statistics, *National Transportation Statistics*
3. Wisconsin Department of Transportation, *2009 Facts and Figures*

Step 1: We begin with the average vehicle miles traveled per licensed driver. For this estimate, we will use data from the Federal Highway Administration. Simply click on the following link:

http://www.fhwa.dot.gov/policyinformation/pubs/pl10023/fig4_4.cfm

Our Nation's Highways: 2010

Figure 4-4. Annual Vehicle Miles Traveled per Licensed Driver: 1970-2008
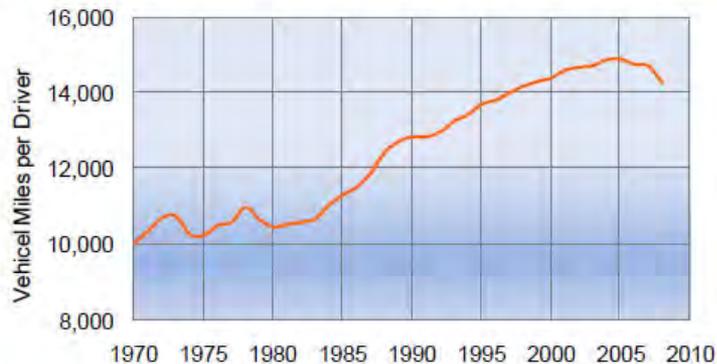
Data available in Excel format

This webpage includes a page with the graph showing the trend in average miles traveled since the 1970s. To find the numbers you need, click on **Table in Excel Format**. This will open an Excel spreadsheet with data for the past forty years.

In 2008, U.S. licensed drivers averaged 14,734 miles driven.

32	1999	14315.61
33	2000	14410.10
34	2001	14615.60
35	2002	14696.72
36	2003	14734.74
37	2004	14895.20
38	2005	14907.94
39	2006	14768.76
40	2007	14726.33
41	2008	14273.72
42		

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Step 2. Average fuel efficiency of passenger cars can be obtained from the Bureau of Transportation Statistics *National Transportation Statistics* (Table 4.23). The latest statistic (2008) is 22.6 miles per gallon.
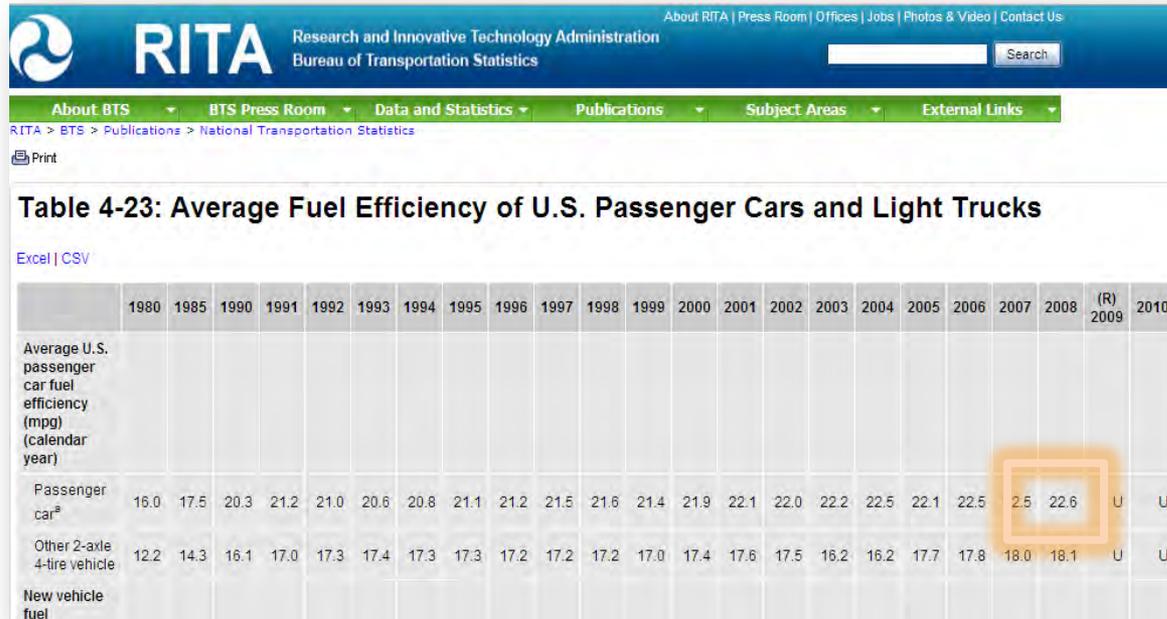
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Print

Table 4-23: Average Fuel Efficiency of U.S. Passenger Cars and Light Trucks

Excel | CSV

	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	(R) 2009	2010
Average U.S. passenger car fuel efficiency (mpg) (calendar year)																							
Passenger car[a]	16.0	17.5	20.3	21.2	21.0	20.6	20.8	21.1	21.2	21.5	21.6	21.4	21.9	22.1	22.0	22.2	22.5	22.1	22.5	2.5	22.6	U	U
Other 2-axle 4-tire vehicle	12.2	14.3	16.1	17.0	17.3	17.4	17.3	17.3	17.2	17.2	17.2	17.0	17.4	17.6	17.5	16.2	16.2	17.7	17.8	18.0	18.1	U	U
New vehicle fuel																							

Passenger vehicles account for less than half of all vehicles in Wisconsin. Using 22.6 MPG understates the actual cost. However, it is used in this case as it provides a conservative, yet useful estimate indicator of the cost.

http://www.bts.gov/publications/national_transportation_statistics/html/table_04_23.html

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How does a 10 cent increase gasoline affect drivers?

Step 3. The number of licensed drivers in your county. This data is available on the WiDOT website at: http://dot.wisconsin.gov/drivers/facts.htm

Scroll down to *Drivers Licensed by county*. This will open a PDF with all the valid, withdrawn, and expired licenses per county. In Marinette, there were 30,960 licensed drivers in 2009.

County	Valid (1)	Withdrawn (2)	Total (1) and (2)	Expired (3)
LINCOLN	21,475	512	21,987	2,739
MANITOWOC	59,318	1,300	60,618	7,231
MARATHON	94,236	2,224	96,460	11,449
MARINETTE	30,960	739	31,699	5,731
MARQUETTE	11,338	307	11,645	1,564
MENOMINEE	2,057	207	2,264	559
MILWAUKEE	530,221	26,462	556,683	132,252
MONROE	29,345	800	30,145	4,346
OCONTO	27,421	560	27,981	2,855

44   Drivers Licensed by County   Facts & Figures 2009

How does a 10 cent increase gasoline affect drivers?

Now, you have the three pieces of data that you need to develop your own estimate.

- **14,274** miles per year per licensed driver
- **30,960** licensed drivers in Marinette County
- **22.6** mpg

Step 1:   14,274 miles per year per driver ÷ 365 days per year = 39.1 miles per day per driver

Step 2:   39.1 miles per day per driver ÷ 22.6 mpg = 1.73 gallons per day per driver

Step 3:   1.73 gallons per day x $.01 = $.017 per day per driver for every penny increase in price

Step 4: $.017 per day per driver x 30,690 licensed drivers in Marinette County = $526.26 per day **per penny increase**

Step 5: $526.26 x 365 days per year = $192,085 per year per penny increase

Step 6: $192,085 per year per penny increase x 10 = $1,920,850 per year per ten cent increase per gallon