

Behind the Numbers

AAA is a federation of motor clubs serving more than 53 million members in the United States and Canada through more than 1,100 offices.

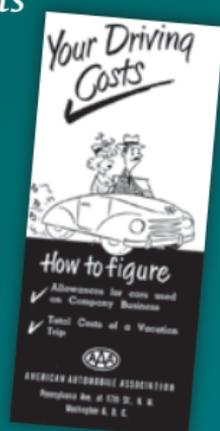
Founded in 1902, AAA is a not-for-profit, fully taxpaying corporation. Its purpose is twofold: give members a full range of automotive and travel-related services and promote the interests of motorists and travelers through legislative and educational activities.

AAA has published *Your Driving Costs* since 1950. That year, driving a car 10,000 miles cost 9 cents a mile, and gasoline sold for 27 cents per gallon.

Methodology Cost calculations in this edition of *Your Driving Costs* are comparable to the 2012 version. The process used to estimate annual driving costs is proprietary to AAA. It incorporates standardized criteria designed to model the average AAA member's use of a vehicle for personal transportation over five years and 75,000 miles of ownership.

The use of standardized criteria ensures AAA's estimates are consistent when comparing driving costs of different vehicle makes and models. Actual driving costs will vary based on individual driving habits, location, operating conditions and other factors.

Estimates are provided to help consumers make informed vehicle purchase decisions and budget for annual automotive expenses.



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2013 Edition



YOUR DRIVING COSTS

How much are you really
paying to drive?





How Much Does it Cost to Drive?

Following are average per-mile costs as determined by AAA and the composite average cost for three size categories of sedans:

AAA Average Costs Per Mile

miles per year	10,000	15,000	20,000
small sedan	59.5 cents	46.4 cents	39.8 cents
medium sedan	78.0 cents	61.0 cents	52.3 cents
large sedan	97.5 cents	75.0 cents	63.5 cents
composite average*	78.3 cents	60.8 cents	51.9 cents

* Detailed driving costs for small, medium and large sedans are provided on pages 6 and 7. Driving costs for four-wheel-drive sport utility vehicles and minivans are listed on page 8. Though not part of the composite AAA average, SUV and minivan information is included to help buyers estimate operating costs for those types of vehicles.

Driving costs in each category are based on average costs for five top-selling 2012 models selected by AAA. By size category, they are:

- ▶ **Small sedan**—Chevrolet Cruze, Ford Focus, Honda Civic, Hyundai Elantra and Toyota Corolla.
- ▶ **Medium sedan**—Chevrolet Impala, Ford Fusion, Honda Accord, Nissan Altima and Toyota Camry.
- ▶ **Large sedan**—Buick LaCrosse, Chrysler 300, Ford Taurus, Nissan Maxima and Toyota Avalon.

Selected SUV models include Chevrolet Traverse, Ford Explorer, Jeep Grand Cherokee, Nissan Pathfinder and Toyota 4Runner. Minivans include Dodge Grand Caravan, Kia Sedona, Honda Odyssey, Nissan Quest and Toyota Sienna.

What's Covered

AAA's analysis covers vehicles equipped with standard features and optional equipment including automatic transmission, air conditioning, power steering, antilock brakes and cruise control, to name a few.

Fuel Fuel costs were based on \$3.486 per gallon, the late-2012 U.S. price from AAA's Fuel Gauge Report, www.FuelGaugeReport.com. Fuel mileage is based on Environmental Protection Agency fuel-economy ratings weighted 60 percent city and 40 percent highway driving.

Maintenance Costs include retail parts and labor for normal, routine maintenance as specified by the vehicle manufacturer. They also include the price of a comprehensive extended warranty with one warranty claim deductible of \$100 and other wear-and-tear items that can be expected to require service during five years of operating the vehicle. Sales tax is included on a national average basis.

Tires Costs are based on the price of one set of replacement tires of the same quality, size and rating as those that came with the vehicle. Mounting, balancing and sales tax also are included.

Insurance AAA based its insurance costs on a full-coverage policy for a married 47-year-old male with a good driving record, living in a small city and commuting three to 10 miles daily to work. The policy includes \$100,000/\$300,000 coverage with a \$500 deductible for collision and a \$100 deductible for comprehensive coverage.

License, Registration and Taxes Costs include all governmental taxes and fees payable at time of purchase, as well as fees due each year to keep the vehicle licensed and registered. Costs are computed on a national average basis.

Depreciation Depreciation is based on the difference between new-vehicle purchase price and estimated trade-in value at the end of five years.

Finance Costs are based on a five-year loan at 6 percent interest with a 10 percent down payment. The loan amount includes taxes and the first year's license fees, both computed on a national average basis.



When determining your annual driving costs, be sure to include all vehicle-related expenses incurred during the year.

Figuring Your Costs

To figure your fuel cost, begin with a full tank of fuel and write down the odometer reading. Each time you fill up, note the number of gallons, how much you pay and the odometer reading. These figures can then be used to calculate average miles per gallon and cost of fuel per mile. For example:

Gas Cost Per Mile

gallons	cost*	odometer
full tank		8,850
12.4	\$43.23	9,136
9.5	\$33.12	9,355
15.7	\$54.73	9,717
37.6	\$131.07	9,717
		-8,850
		miles driven = 867
miles per gallon: $867 \div 37.6 = 23.1$ mpg		
gas cost per mile: $\\$131.07 \div 867 = 15.12$ cents		

* price per gallon \$3.486



To determine your driving costs accurately, keep personal records on all the costs listed below. Use this worksheet to figure your total cost to drive.

Annual Cost Per Mile

costs		yearly totals
operating costs		
gas per mile		_____
total miles driven	×	=====
total gas	=	_____
maintenance	+	_____
tires	+	=====
total operating costs	+ =	_____
ownership costs		
depreciation		_____
insurance	+	_____
taxes	+	_____
license and registration	+	_____
finance charges	+	=====
total ownership costs	+ =	_____
other costs (washing, accessories, etc.)	+	=====
total driving costs	=	_____
total miles driven	÷	=====
cost per mile	=	_____

Driving Costs

Small Sedan †

Operating Costs

per mile

gas	11.46 cents
maintenance	4.60 cents
tires	0.64 cents

cost per mile 16.70 cents

Ownership Costs

per year

full-coverage insurance	\$1,002
license, registration, taxes	\$452
depreciation (15,000 miles annually)	\$2,402
finance charge	\$606

cost per year \$4,642

cost per day \$12.22

Total Cost Per Mile

10,000 total miles per year per year

cost per mile x 10,000 miles \$1,670

cost per day x 365 days \$4,462

decreased depreciation** -\$180

total cost per year \$5,952

total cost per mile* 59.5 cents

15,000 total miles per year per year

cost per mile x 15,000 miles \$2,505

cost per day x 365 days \$4,462

total cost per year \$6,967

total cost per mile* 46.4 cents

20,000 total miles per year per year

cost per mile x 20,000 miles \$3,340

cost per day x 365 days \$4,462

increased depreciation*** \$160

total cost per year \$7,962

total cost per mile* 39.8 cents

* total cost per year ÷ total miles per year

** decreased depreciation for mileage under 15,000 miles annually averaged over 5 years



Medium Sedan †	Large Sedan †	Average
per mile	per mile	per mile
15.08 cents	16.80 cents	14.45 cents
4.92 cents	5.40 cents	4.97 cents
1.09 cents	1.28 cents	1.00 cents
21.09 cents	23.48 cents	20.42 cents
per year	per year	per year
\$1,020	\$1,064	\$1,029
\$600	\$780	\$611
\$3,536	\$4,776	\$3,571
\$831	\$1,106	\$848
\$5,987	\$7,726	\$6,058
\$16.40	\$21.17	\$16.60
per year	per year	per year
\$2,109	\$2,348	\$2,042
\$5,987	\$7,726	\$6,058
-\$292	-\$326	-\$266
\$7,804	\$9,748	\$7,835
78.0 cents	97.5 cents	78.3 cents
per year	per year	per year
\$3,164	\$3,522	\$3,064
\$5,987	\$7,726	\$6,058
\$9,151	\$11,248	\$9,122
61.0 cents	75.0 cents	60.8 cents
per year	per year	per year
\$4,218	\$4,696	\$4,085
\$5,987	\$7,726	\$6,058
\$251	\$283	\$231
\$10,456	\$12,705	\$10,374
52.3 cents	63.5 cents	51.9 cents

*** increased depreciation for mileage over 15,000 miles annually averaged over 5 years

† see page 2 for a listing of vehicle makes and models used for driving cost calculations

Driving Costs

	4WD Sport Utility Vehicle †	Minivan †
Operating Costs	per mile	per mile
gas	19.40 cents	16.70 cents
maintenance	5.55 cents	4.86 cents
tires	1.20 cents	0.83 cents
cost per mile	26.15 cents	22.39 cents

	per year	per year
Ownership Costs		
full-coverage insurance	\$967	\$931
license, registration, taxes	\$790	\$646
depreciation (15,000 miles annually)	\$4,798	\$3,957
finance charge	\$1,121	\$902
cost per year	\$7,676	\$6,436
cost per day	\$21.03	\$17.63

Total Cost Per Mile		
10,000 miles a year	per year	per year
cost per mile x 10,000 miles	\$2,615	\$2,239
cost per day x 365 days	\$7,676	\$6,436
decreased depreciation**	-\$275	-\$275
total cost per year	\$10,016	\$8,400
total cost per mile*	\$1	84.0 cents

15,000 miles a year	per year	per year
cost per mile x 15,000 miles	\$3,923	\$3,359
cost per day x 365 days	\$7,676	\$6,436
total cost per year	\$11,599	\$9,795
total cost per mile*	77.3 cents	65.3 cents

20,000 miles a year	per year	per year
cost per mile x 20,000 miles	\$5,230	\$4,478
cost per day x 365 days	\$7,676	\$6,436
increased depreciation***	\$235	\$235
total cost per year	\$13,141	\$11,149
total cost per mile*	65.7 cents	55.7 cents

* total cost per year ÷ total miles per year

** decreased depreciation for mileage under 15,000 miles annually averaged over five years

*** increased depreciation for mileage over 15,000 miles annually averaged over five years

† see page 2 for a listing of vehicle makes and models used for driving cost calculations

An aerial photograph of a multi-lane highway during a traffic jam. The road is filled with various vehicles including cars, SUVs, and pickup trucks. In the background, there are green hills and a bridge structure. A large, white, circular graphic is overlaid on the top left of the image, framing the text.

If you commute to work by car, figure about \$61 in total vehicle expenses per 100 miles. If that seems like a lot, driving a more fuel-efficient model or using public or alternative transportation options could save you money.

Vehicle Maintenance

Driving costs also are affected by how well your vehicle runs. Performing regular maintenance can ensure more efficient vehicle operation and help prevent costly repairs down the road. Here are some things to check to make sure your vehicle stays in tip-top shape. Before performing any maintenance, read your owner's manual to become familiar with your vehicle's specific requirements, and be sure to take proper safety precautions.

Fluids

- ▶ **Engine oil:** Lubricates and cools the engine while cleaning internal parts. Running your car when it's low on oil can cause serious engine damage. Check the oil level at least once a month.
- ▶ **Coolant:** Prevents engine freeze-up in winter and boil-over in summer while protecting the cooling system from rust and corrosion. Check the coolant level at each oil change.
- ▶ **Brake fluid:** Critical to proper performance of the vehicle's braking system. Check at each oil change.
- ▶ **Transmission fluid:** Helps transfer engine power to the wheels, lubricates internal parts, maintains seals and acts as a coolant. Check the level at each oil change.
- ▶ **Power steering fluid:** Transfers hydraulic pressure to reduce driver steering effort. Check at each oil change.
- ▶ **Gasoline:** Follow vehicle manufacturer octane rating recommendations to ensure maximum fuel efficiency and prevent damaging engine knock.

Air Filter Your vehicle's air filter captures dirt particles and ensures proper airflow to the engine's combustion chamber. Inspect the filter at every oil change and replace as needed.

Belts Most vehicles today use a single serpentine belt to operate under-hood accessories such as the alternator. However, V-belts still are used in some applications. Inspect all belts at every oil change and replace when you spot signs of wear such as glazing or cracking.

Hoses Hoses circulate vital liquids such as transmission fluid, engine coolant and power steering fluid. Inspect hoses at every oil change and repair or replace any that show signs of wear or leakage.



Battery The battery supplies power to the starter motor, acts as a voltage stabilizer and makes up for any shortfall when the alternator can't meet the vehicle's electrical needs. Inspect battery cable connections at every oil change and clean as needed. When inspecting a battery, always wear eye protection and gloves.

Tires As the only part of your vehicle in contact with the road, tires are integral to safety and ride comfort. For optimum performance, tires must have adequate tread depth and proper inflation. Inspect tires and check inflation pressures at least once a month.

AAA offers several resources to complement information found in your owner's manual. They include:

- ▶ **AAA.com:** Provides a variety of vehicle maintenance and operating tips. Online content varies by AAA club.
- ▶ **AAA Approved Auto Repair:** The Approved Auto Repair network includes nearly 8,000 shops across North America that are visited regularly and inspected annually to ensure they meet AAA's rigorous quality standards and deliver exceptional service and value. AAA members using them receive written repair estimates, free maintenance inspections, a minimum 12-month/12,000-mile parts and labor warranty and AAA arbitration in repair disputes.
- ▶ **AAA ShopLocator:** Available in most areas, this AAA.com search tool helps users locate nearby AAA Approved Auto Repair facilities and provides their list of services, hours and other helpful information.
- ▶ **AAA AutoManager:** This free AAA.com program sends users e-mail reminders of scheduled vehicle service requirements and due dates for vehicle payments and insurance premiums. It also provides vehicle recall notifications and helps owners track service histories. Online content varies by club.