

2012 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	57.6 cents	44.9 cents	38.4 cents
medium sedan	74.9 cents	58.5 cents	50.1 cents
large sedan	98.8 cents	75.5 cents	63.6 cents
<b>composite average *</b>	<b>77.1 cents</b>	<b>59.6 cents</b>	<b>50.7 cents</b>

\* 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 2011 models selected by AAA. By size category, they are:

- **Small sedan** — Chevrolet Cruze, Ford Focus, Honda Civic, Nissan Sentra and Toyota Corolla.
- **Medium sedan** — Chevrolet Impala, Ford Fusion, Honda Accord, Nissan Altima and Toyota Camry.
- **Large sedan** — Buick Lucerne, 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 \$3.357 per gallon, the late-2011 U.S. price from AAA's Fuel Gauge Report, [www.FuelGaugeReport.com](http://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	\$41.63	9,136
9.5	\$31.89	9,355
15.7	\$52.70	9,717
<b>37.6</b>	<b>\$126.22</b>	<b>9,717</b>
		<b>- 8,850</b>

**miles driven = 867**

**miles per gallon:  $867 \div 37.6 = 23.1$  mpg**

**gas cost per mile:  $\$126.22 \div 867 = 14.56$  cents**

\* price per gallon \$3.357



**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
<b>operating costs</b>	
gas per mile	x _____
total miles driven	= _____
total gas	+ _____
maintenance	+ _____
tires	+ _____
<b>total operating costs</b>	<b>+</b> = _____
<b>ownership costs</b>	
depreciation	_____
insurance	+ _____
taxes	+ _____
license and registration	+ _____
finance charges	+ _____
<b>total ownership costs</b>	<b>+</b> = _____
<b>other costs</b>	
(washing, accessories, etc.)	<b>+</b> _____
<b>total driving costs</b>	<b>=</b> _____
<b>total miles driven</b>	<b>÷</b> _____
<b>cost per mile</b>	<b>=</b> _____

# Driving Costs

Small Sedan †

## Operating Costs

per mile

gas	11.42 cents
maintenance	4.15 cents
tires	0.71 cents

**cost per mile** **16.28 cents**

## Ownership Costs

per year

full-coverage insurance	\$979
license, registration, taxes	\$441
depreciation (15,000 miles annually)	\$2,285
finance charge	\$588

**cost per year** **\$4,293**

**cost per day** **\$11.76**

## Total Cost Per Mile

**10,000 total miles per year** **per year**

cost per mile x 10,000 miles	\$1,628
cost per day x 365 days	\$4,293
decreased depreciation**	-\$160

**total cost per year** **\$5,761**

**total cost per mile\*** **57.6 cents**

**15,000 total miles per year** **per year**

cost per mile x 15,000 miles	\$2,442
cost per day x 365 days	\$4,293

**total cost per year** **\$6,735**

**total cost per mile\*** **44.9 cents**

**20,000 total miles per year** **per year**

cost per mile x 20,000 miles	\$3,256
cost per day x 365 days	\$4,293
increased depreciation***	\$135

**total cost per year** **\$7,684**

**total cost per mile\*** **38.4 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

14.61 cents

4.32 cents

1.13 cents

**20.06 cents**

### per mile

16.49 cents

4.94 cents

1.15 cents

**22.58 cents**

### per mile

14.17 cents

4.47 cents

1.00 cents

**19.64 cents**

### per year

\$974

\$591

\$3,388

\$818

**\$5,771**

**\$15.81**

### per year

\$1,050

\$797

\$4,958

\$1,132

**\$7,937**

**\$21.75**

### per year

\$1,001

\$610

\$3,544

\$846

**\$6,000**

**\$16.44**

### per year

\$2,006

\$5,771

-\$289

**\$7,488**

**74.9 cents**

### per year

\$2,258

\$7,937

-\$317

**\$9,878**

**98.8 cents**

### per year

\$1,964

\$6,000

-\$255

**\$7,709**

**77.1 cents**

### per year

\$3,009

\$5,771

**\$8,780**

**58.5 cents**

### per year

\$3,387

\$7,937

**\$11,324**

**75.5 cents**

### per year

\$2,946

\$6,000

**\$8,946**

**59.6 cents**

### per year

\$4,012

\$5,771

\$241

**\$10,024**

**50.1 cents**

### per year

\$4,516

\$7,937

\$263

**\$12,716**

**63.6 cents**

### per year

\$3,928

\$6,000

\$213

**\$10,141**

**50.7 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

	<b>4WD Sport Utility Vehicle †</b>	<b>Minivan †</b>
<b>Operating Costs</b>	<b>per mile</b>	<b>per mile</b>
gas	18.65 cents	16.15 cents
maintenance	4.88 cents	4.39 cents
tires	1.27 cents	0.81 cents
<b>cost per mile</b>	<b>24.80 cents</b>	<b>21.35 cents</b>

	<b>per year</b>	<b>per year</b>
<b>Ownership Costs</b>		
full-coverage insurance	\$934	\$888
license, registration, taxes	\$794	\$645
depreciation (15,000 miles annually)	\$4,784	\$3,868
finance charge	\$1,128	\$900
<b>cost per year</b>	<b>\$7,640</b>	<b>\$6,301</b>
<b>cost per day</b>	<b>\$20.93</b>	<b>\$17.26</b>

## Total Cost Per Mile

<b>10,000 miles a year</b>	<b>per year</b>	<b>per year</b>
cost per mile x 10,000 miles	\$2,480	\$2,135
cost per day x 365 days	\$7,640	\$6,301
decreased depreciation**	-\$275	-\$275
<b>total cost per year</b>	<b>\$9,845</b>	<b>\$8,161</b>
<b>total cost per mile*</b>	<b>98.5 cents</b>	<b>81.6 cents</b>

<b>15,000 miles a year</b>	<b>per year</b>	<b>per year</b>
cost per mile x 15,000 miles	\$3,720	\$3,203
cost per day x 365 days	\$7,640	\$6,301
<b>total cost per year</b>	<b>\$11,360</b>	<b>\$9,504</b>
<b>total cost per mile*</b>	<b>75.7 cents</b>	<b>63.4 cents</b>

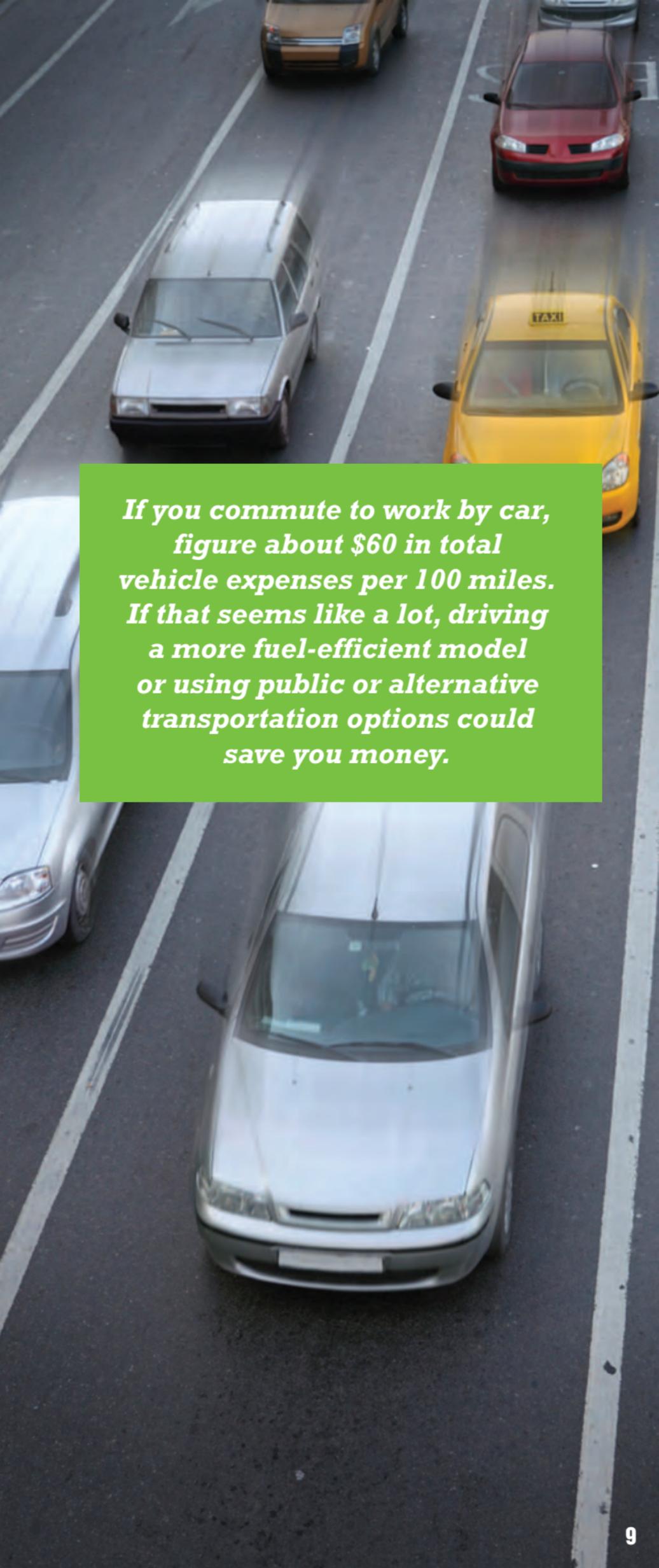
<b>20,000 miles a year</b>	<b>per year</b>	<b>per year</b>
cost per mile x 20,000 miles	\$4,960	\$4,270
cost per day x 365 days	\$7,640	\$6,301
increased depreciation***	\$230	\$230
<b>total cost per year</b>	<b>\$12,830</b>	<b>\$10,801</b>
<b>total cost per mile*</b>	<b>64.2 cents</b>	<b>54.0 cents</b>

\* 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



***If you commute to work by car, figure about \$60 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 not only ensures more efficient vehicle operation, but can help prevent costly repairs down the road.

Here are some things to keep an eye on 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 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:** Also known as antifreeze, this fluid 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 and dust particles and ensures proper airflow to the engine's combustion chamber. For maximum performance and efficiency, 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 air-conditioning compressor. 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 pressure at least once a month.

### **AAA encourages regular vehicle maintenance**

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

- **AAA.com:** Provides a variety of automotive maintenance and operating tips in addition to those covered in this publication. Online content varies by AAA club.

- **AAA ShopLocator:** Available in most areas, this AAA.com search tool helps users locate nearby AAA Approved Auto Repair facilities. Shop information includes types of vehicles serviced, repair services, hours of operation, online appointment requests and maps/driving directions.

- **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.

- **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 who use AAR facilities benefit from written repair estimates, free maintenance inspections, a minimum 12 month/12,000-mile parts and labor warranty and AAA arbitration in repair disputes.

# 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.

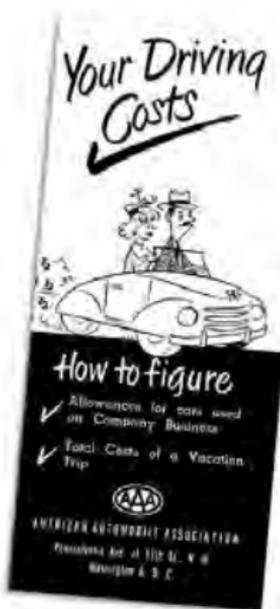
Founded in 1902, AAA is a not-for-profit, fully taxpaying corporation. Its purpose is twofold: give members a full range of automotive and travel-related services and promote the interests of motorists and travelers through legislative and educational activities.

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 2011 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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