



YOUR DRIVING COSTS

*How Much Are You Really
Paying to Drive?*





How Much Does It Cost to Drive?

Shown below are average per-mile costs as determined by AAA, based on the driving costs for nine vehicle categories weighted by sales. Detailed driving costs for each category are provided on pages 6 through 9.

AAA Average Costs Per Mile

Miles per Year	10,000	15,000	20,000
Composite Average	79.29 cents	61.88 cents	53.31 cents

Driving costs in each vehicle category are based on average costs for five top-selling 2019 models selected by AAA. By category, they are:

- ▶ **Small Sedan** — Chevrolet Cruze, Honda Civic, Hyundai Elantra, Nissan Sentra and Toyota Corolla
- ▶ **Medium Sedan** — Chevrolet Malibu, Ford Fusion, Honda Accord, Nissan Altima and Toyota Camry
- ▶ **Large Sedan** — Chevrolet Impala, Chrysler 300, Ford Taurus, Nissan Maxima and Toyota Avalon
- ▶ **Small SUV** — Chevrolet Equinox, Ford Escape, Honda CR-V, Nissan Rogue and Toyota RAV4
- ▶ **Medium SUV** — Chevrolet Traverse, Ford Explorer, Honda Pilot, Jeep Grand Cherokee and Toyota Highlander
- ▶ **Minivan** — Chrysler Pacifica, Dodge Grand Caravan, Kia Sedona, Honda Odyssey and Toyota Sienna
- ▶ **Pickup Truck** — Chevrolet Silverado 1500, Ford F-150, Nissan Titan, Ram 1500 and Toyota Tundra
- ▶ **Hybrid Car** — Ford Fusion, Hyundai Ioniq, Kia Niro, Toyota Prius Liftback and Toyota RAV4
- ▶ **Electric Car** — BMW i3, Chevrolet Bolt, Kia Soul, Nissan Leaf and Volkswagen eGolf

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.

Depreciation — Depreciation is based on the difference between new-vehicle purchase price and estimated trade-in value at the end of five years and 75,000 miles.

Finance — Costs are based on a five-year loan, with 10 percent down, at the national average interest rate for five credit rating categories weighted by market share. The loan amount includes taxes and the first year's license fees, both computed on a national average basis.

Fuel — Fuel costs are based on average prices for the 12 months ending May 31, 2019, as reported by AAA Gas Prices at www.GasPrices.AAA.com. During this period, regular grade gasoline averaged \$2.679 per gallon. Fuel economy is based on Environmental Protection Agency ratings for 55 percent city and 45 percent highway driving. Electric vehicle charging costs are based on a rate of 12.6 cents per kilowatt hour.

Insurance — Costs are based on a full-coverage policy for personal use of a vehicle by a driver who is under 65 years of age, has more than six years of driving experience, no accidents and lives in a suburban/urban location. The policy includes discounts for passive restraints and an anti-theft system, and provides \$100,000/\$300,000 personal liability, \$25,000 medical, \$100,000 property and \$25,000/\$50,000 uninsured/underinsured motorist coverage. A \$500 deductible applies to all collision and comprehensive claims.

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.

Maintenance, Repair and Tires — These costs include retail parts and labor for routine maintenance specified by the vehicle manufacturer, a comprehensive extended warranty, repairs to wear-and-tear items that require service during five years of operation and one set of replacement tires of the same quality, size and rating as those that came with the car. Sales tax is included 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 paid 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 ¹	Odometer
Full Tank		8,850
12.4	\$33.22	9,136
9.5	\$25.45	9,355
15.7	\$42.06	9,717
37.6	\$100.73	9,717
		-8,850
		Miles Driven = 867
Miles per gallon: $867 \div 37.6 = 23.1$ mpg		
Gas cost per mile: $\\$100.73 \div 867 = 11.62$ cents		

¹ Cost per gallon = \$2.679

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, repair and tires	+	_____
Total Operating Costs	+	_____
Ownership Costs		
Depreciation		_____
Insurance	+	_____
License, registration and taxes	+	_____
Finance charges	+	_____
Total Ownership Costs	+	_____
Other Costs	+	_____
(Parking, tolls, washing, etc.)		_____
Total Driving Costs	=	_____
Total Miles Driven	÷	_____
Cost per Mile	=	_____

DRIVING COSTS

	Small Sedan ¹	Medium Sedan ¹	Large Sedan ¹	Small SUV (FWD) ¹	Medium SUV (4WD) ¹
Operating Costs					
Fuel	8.36 cents	9.27 cents	12.77 cents	9.42 cents	13.20 cents
Maintenance, repair and tires	8.53 cents	9.18 cents	9.49 cents	9.09 cents	9.60 cents
Cost Per Mile	16.89 cents	18.45 cents	22.26 cents	18.51 cents	22.80 cents

Ownership Costs

Full-coverage insurance	\$1,328	\$1,251	\$1,221	\$1,089	\$1,114
License, registration, taxes	\$466	\$661	\$807	\$630	\$862
Depreciation (15,000 miles annually)	\$2,240	\$3,169	\$4,061	\$3,132	\$3,794
Finance charge	\$546	\$794	\$975	\$766	\$1,075
Cost Per Year	\$4,580	\$5,875	\$7,064	\$5,617	\$6,845
Cost Per Day	\$12.55	\$16.10	\$19.35	\$15.39	\$18.75

Total Cost Per Mile

10,000 total miles per year	Per Year	Per Year	Per Year	Per Year	Per Year
Cost per mile x 10,000 miles	\$1,689	\$1,845	\$2,226	\$1,851	\$2,280
Cost per day x 365 days	\$4,580	\$5,875	\$7,064	\$5,617	\$6,845
Decreased depreciation ²	-\$209	-\$233	-\$296	-\$286	-\$382
Total Cost Per Year	\$6,060	\$7,487	\$8,994	\$7,182	\$8,743
Total Cost Per Day	\$16.60	\$20.51	\$24.64	\$19.68	\$23.95
Total Cost Per Mile³	\$0.6060	\$0.7487	\$0.8994	\$0.7182	\$0.8743

15,000 total miles per year	Per Year	Per Year	Per Year	Per Year	Per Year
Cost per mile x 15,000 miles	\$2,534	\$2,768	\$3,339	\$2,777	\$3,420
Cost per day x 365 days	\$4,580	\$5,875	\$7,064	\$5,617	\$6,845
Total Cost Per Year	\$7,114	\$8,643	\$10,403	\$8,394	\$10,265
Total Cost Per Day	\$19.49	\$23.68	\$28.50	\$23.00	\$28.12
Total Cost Per Mile³	\$0.4742	\$0.5762	\$0.6935	\$0.5596	\$0.6843

20,000 total miles per year	Per Year	Per Year	Per Year	Per Year	Per Year
Cost per mile x 20,000 miles	\$3,378	\$3,690	\$4,452	\$3,702	\$4,560
Cost per day x 365 days	\$4,580	\$5,875	\$7,064	\$5,617	\$6,845
Increased depreciation ⁴	\$227	\$252	\$320	\$310	\$414
Total Cost Per Year	\$8,185	\$9,817	\$11,836	\$9,629	\$11,819
Total Cost Per Day	\$22.42	\$26.90	\$32.43	\$26.38	\$32.38
Total Cost Per Mile³	\$0.4093	\$0.4909	\$0.5918	\$0.4815	\$0.5910

¹ See page 2 for a listing of vehicle makes and models used for driving cost calculations.

² Decreased depreciation for mileage under 15,000 miles annually averaged over 5 years.

³ Total cost per year ÷ total miles per year.

⁴ Increased depreciation for mileage over 15,000 miles annually averaged over 5 years.

DRIVING COSTS

	Minivan ¹	1/2-Ton, Crew-Cab Pickup (4WD) ¹	Hybrid Vehicle ¹	Electric Vehicle ¹	2019 Weighted Average
Operating Costs					
Fuel	12.61 cents	15.67 cents	5.76 cents	3.65 cents	11.60 cents
Maintenance, repair and tires	8.73 cents	8.77 cents	7.70 cents	6.60 cents	8.94 cents
Cost Per Mile	21.34 cents	24.44 cents	13.46 cents	10.25 cents	20.54 cents
Ownership Costs					
Full-coverage insurance	\$1,103	\$1,236	\$1,202	\$1,203	\$1,194
License, registration, taxes	\$769	\$1,013	\$639	-\$519	\$753
Depreciation (15,000 miles annually)	\$4,036	\$3,696	\$3,087	\$5,250	\$3,334
Finance charge	\$927	\$1,228	\$789	\$848	\$920
Cost Per Year	\$6,835	\$7,173	\$5,717	\$6,782	\$6,201
Cost Per Day	\$18.73	\$19.65	\$15.66	\$18.58	\$16.99
Total Cost Per Mile					
10,000 total miles per year	Per Year	Per Year	Per Year	Per Year	Per Year
Cost per mile x 10,000 miles	\$2,134	\$2,444	\$1,346	\$1,025	\$2,054
Cost per day x 365 days	\$6,835	\$7,173	\$5,717	\$6,782	\$6,201
Decreased depreciation ²	-\$264	-\$454	-\$264	-\$312	-\$326
Total Cost Per Year	\$8,705	\$9,163	\$6,799	\$7,495	\$7,929
Total Cost Per Day	\$23.85	\$25.10	\$18.63	\$20.53	\$21.72
Total Cost Per Mile³	\$0.8705	\$0.9163	\$0.6799	\$0.7495	\$0.7929
15,000 total miles per year	Per Year	Per Year	Per Year	Per Year	Per Year
Cost per mile x 15,000 miles	\$3,201	\$3,666	\$2,019	\$1,538	\$3,081
Cost per day x 365 days	\$6,835	\$7,173	\$5,717	\$6,782	\$6,201
Total Cost Per Year	\$10,036	\$10,839	\$7,736	\$8,320	\$9,282
Total Cost Per Day	\$27.50	\$29.70	\$21.19	\$22.79	\$25.43
Total Cost Per Mile³	\$0.6691	\$0.7226	\$0.5157	\$0.5546	\$0.6188
20,000 total miles per year	Per Year	Per Year	Per Year	Per Year	Per Year
Cost per mile x 20,000 miles	\$4,268	\$4,888	\$2,692	\$2,050	\$4,108
Cost per day x 365 days	\$6,835	\$7,173	\$5,717	\$6,782	\$6,201
Increased depreciation ⁴	\$286	\$496	\$285	\$338	\$354
Total Cost Per Year	\$11,389	\$12,557	\$8,694	\$9,170	\$10,663
Total Cost Per Day	\$31.20	\$34.40	\$23.82	\$25.12	\$29.21
Total Cost Per Mile³	\$0.5695	\$0.6279	\$0.4347	\$0.4585	\$0.5331

¹ See page 2 for a listing of vehicle makes and models used for driving cost calculations.

² Decreased depreciation for mileage under 15,000 miles annually averaged over 5 years.

³ Total cost per year ÷ total miles per year.

⁴ Increased depreciation for mileage over 15,000 miles annually averaged over 5 years.

Vehicle Maintenance

Driving costs are affected by how well your vehicle runs. Performing regular maintenance can ensure more efficient operation and help prevent costly repairs down the road. Below are general checks to keep your vehicle in good operating shape. Read your owner's manual for more detailed information on your vehicle's specific requirements. When performing "do-it-yourself" maintenance, always take appropriate safety precautions.

Air Filter — Captures dirt particles and ensures clean air-flow to the engine. Inspect at every oil change.

Battery — Powers the starter motor, acts as a voltage stabilizer for the electrical system and makes up any shortfall when the alternator cannot meet the vehicle's electrical demands. Inspect the battery cable connections at every oil change and clean as needed. Always wear eye protection and gloves when servicing a battery.

Belts — Most vehicles use a single serpentine belt to operate under-hood accessories such as the alternator, although V-belts still are used in some applications. Inspect at every oil change.

Fluids

▶ **Brake Fluid** — Critical to proper brake system performance. Check the level at every oil change.

▶ **Engine Coolant** — Prevents engine freeze-up in winter and boil-over in summer, and protects the cooling system from rust and corrosion. Check the level at every oil change.

▶ **Engine Oil** — Lubricates and cools the engine while cleaning internal parts. Running your car low on oil can cause serious engine damage. Check the level at least once a month.

▶ **Power Steering Fluid** — Transfers hydraulic pressure to reduce steering effort. Check the level at every 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 every oil change.

Gasoline — Use gasoline with the octane rating recommended by the vehicle manufacturer — a higher fuel grade will not provide additional benefits. Gasolines that meet TOP TIER™ standards do a better job of preventing and removing internal engine deposits.



Hoses — Circulate vital liquids such as engine coolant, transmission fluid and power steering fluid. Inspect at every oil change.

Tires — As the only part of your vehicle in contact with the road, tires have a major effect on ride, handling, braking and safety. For optimum performance, tires must have adequate tread depth, show no signs of physical damage and be properly inflated. Inspect tires and check inflation pressures at least once a month.

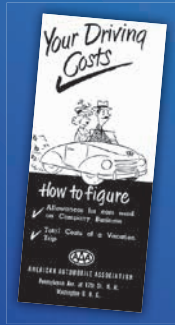
AAA Car Care Resources

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

- ▶ **AAA.com** — Provides a variety of vehicle maintenance and operating tips. Online content varies by AAA club.
- ▶ **AAA.com/autorepair** — This site features a search tool to help users locate nearby AAA Approved Auto Repair (AAR) facilities. It also has a tool for estimating repair costs, and numerous articles that discuss various aspects of car care.
- ▶ **AAA Approved Auto Repair** — The AAR network includes nearly 7,000 shops across North America that are visited regularly and inspected annually by AAA to ensure they meet AAA's rigorous quality standards. AAA members receive priority service when their car is towed in, assistance in obtaining alternate transportation (if necessary), repair discounts, written estimates, free maintenance inspections, a minimum 24-month/24,000-mile warranty and AAA arbitration to resolve repair disputes.
- ▶ **AAA Mobile App** — Available for both Apple and Android devices, AAA's app provides AAA Approved Auto Repair shop locations and information, along with a variety of other useful benefits.

Behind the Numbers

AAA provides more than 59 million members with automotive, travel, insurance and financial services through its federation of 33 motor clubs and over 1,000 branch offices across North America. Since 1902, the not-for-profit, fully tax-paying AAA has been a leader and advocate for safe mobility. Drivers can request roadside assistance, identify nearby gas prices, locate discounts, book a hotel or map a route via the AAA Mobile app.



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

The *Your Driving Costs* study employs a proprietary AAA methodology to analyze the costs of owning and operating a new vehicle in the United States. Most driving costs in this edition are comparable to those in the 2018 version. However, revised calculations that better reflect real-world expenses have set new baselines for maintenance costs and the overall average driving costs compared to previous editions.

The AAA methodology uses data from a variety of sources, including Vincentric LLC, and incorporates standardized criteria to estimate the costs of using a new vehicle for personal transportation over five years and 75,000 miles of ownership. The use of standardized criteria ensures AAA estimates are consistent when comparing the driving costs of different vehicle types. Actual driving costs will vary based on driving habits, location, operating conditions and other factors.

The AAA *Your Driving Costs* estimates are provided to help consumers make informed vehicle purchase decisions and budget for annual automotive expenses.



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