



How Much Does it Really Cost to Own a New Car?

Shown to the right are average per-mile costs for 2020 as determined by AAA, based on the driving costs for nine vehicle categories weighted by sales.

AAA Average Costs Per Mile

| Miles per Year | 10k | 15k | 20k |
|---------------------|--------|--------|--------|
| Average Cost | 82.36¢ | 63.74¢ | 54.57¢ |

Detailed driving costs in each vehicle category are based on average costs for five top-selling 2020 models selected by AAA and can be found on pages 5 and 6. By category, they are:

- ▶ **Small Sedan** — Honda Civic, Hyundai Elantra, Nissan Sentra, Toyota Corolla, Volkswagen Jetta
- ▶ **Medium Sedan** — Chevrolet Malibu, Ford Fusion, Honda Accord, Nissan Altima, Toyota Camry
- ▶ **Large Sedan** — Chevrolet Impala, Chrysler 300, Kia Cadenza, Nissan Maxima, Toyota Avalon
- ▶ **Small SUV** — Chevrolet Equinox, Ford Escape, Honda CR-V, Nissan Rogue, Toyota RAV4
- ▶ **Medium SUV** — Chevrolet Traverse, Ford Explorer, Honda Pilot, Jeep Grand Cherokee, Toyota Highlander
- ▶ **Minivan** — Chrysler Pacifica, Dodge Grand Caravan, Kia Sedona, Honda Odyssey, Toyota Sienna
- ▶ **Pickup Truck** — Chevrolet Silverado, Ford F-150, Nissan Titan, Ram 1500 and Toyota Tundra
- ▶ **Hybrid Car** — Ford Fusion, Honda Insight, Hyundai Ioniq, Toyota Prius Liftback, Toyota RAV4
- ▶ **Electric Car** — BMW i3, Chevrolet Bolt, Hyundai Kona Electric, Nissan Leaf, Tesla Model 3



How to Calculate Your Own Driving Costs

Start by figuring your gas cost per mile. To do this, you'll need to keep track of your fueling habits over the course of one year. When your gas tank is full, write down the number of miles on your odometer. Then each time you fill up — note the number of gallons, how much you paid and the miles on your odometer. You will use these numbers to calculate your average miles per gallon as well as your gas cost per mile.

Example: You drove a total of 867 miles and used 37.6 gallons of gas, which cost \$100.73. Miles per gallon: $867/37.6 = 23.1$ mpg. Gas cost per mile: $\$100.73/867 = 11.62$ cents.

| Miles Per Gallon | |
|--------------------|---------|
| total miles driven | _____ |
| gallons used | ÷ _____ |
| miles per gallon: | = _____ |

| Gas Cost Per Mile | |
|--------------------|---------|
| total cost of gas | _____ |
| total miles driven | ÷ _____ |
| gas cost per mile: | = _____ |

Now you can determine the driving costs of your vehicle. Just like with your gas costs, you'll need to keep track of the total miles driven as well as any cost associated with your car for one year. This includes everything from routine maintenance to insurance to miscellaneous costs like parking and tolls. You'll use these numbers to determine your operating costs, ownership costs and cost per mile for your vehicle. If you have questions, detailed explanations are provided for each cost category on the next page.

| Operating Costs per Year | |
|--|---------|
| gas cost per mile | _____ |
| total miles driven | x _____ |
| total gas | = _____ |
| maintenance, repair & tires | + _____ |
| other costs (parking, tolls, washing, etc.) | + _____ |
| operating cost: | = _____ |

| Ownership Costs per Year | |
|-------------------------------|---------|
| depreciation | _____ |
| insurance | + _____ |
| license, taxes & registration | + _____ |
| finance charges | + _____ |
| ownership cost: | = _____ |

| Cost per Mile | |
|--------------------|---------|
| operating cost | + _____ |
| ownership cost | + _____ |
| | = _____ |
| total miles driven | ÷ _____ |
| cost per mile | = _____ |

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.

Fuel — Fuel costs are based on average prices for the 12 months ending May 31, 2020, as reported by AAA Gas Prices at www.GasPrices.AAA.com. During this period, regular grade gasoline averaged \$2.462 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 13.1 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.

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.



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 — The engine air filter captures dirt particles and ensures clean airflow to the engine. Inspect at every oil change.

Battery — The vehicle's 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.

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 — A vehicle's 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.

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.

*The TOP TIER™ fuel program is a performance standard for gasoline that enables vehicle manufacturers to ensure the engines they design and produce will meet the emissions and performance criteria for which they are designed. Fuels that are part of the TOP TIER™ program must undergo testing to ensure the engine does not develop excessive carbon deposits on the intake valve, within the combustion chamber, or on the fuel injector that can impact emissions and drivability.

Driving Costs

Please note the figures in each vehicle category are the average costs for five top-selling 2020 models selected by AAA for this year's Your Driving Costs study.

| | Small Sedan | Medium Sedan | Large Sedan | Small SUV (FWD) | Medium SUV (4WD) |
|--|-----------------|-----------------|-----------------|-----------------|------------------|
| Operating Costs | | | | | |
| fuel | 7.15¢ | 8.31¢ | 11.43¢ | 8.27¢ | 11.25¢ |
| maintenance | 8.39¢ | 9.56¢ | 9.69¢ | 9.48¢ | 10.11¢ |
| cost per mile | 15.54¢ | 17.87¢ | 21.13¢ | 17.76¢ | 21.37¢ |
| Ownership Costs | | | | | |
| full-coverage insurance | \$1,342 | \$1,245 | \$1,264 | \$1,087 | \$1,118 |
| license, registration, taxes | \$560 | \$730 | \$934 | \$712 | \$968 |
| depreciation (15k mi/yr) | \$2,769 | \$3,394 | \$4,914 | \$3,234 | \$3,824 |
| finance charge | \$513 | \$684 | \$900 | \$665 | \$921 |
| cost per year | \$5,185 | \$6,054 | \$8,013 | \$5,699 | \$6,831 |
| cost per day | \$14.20 | \$16.59 | \$21.95 | \$15.61 | \$18.72 |
| Total Cost Per Mile - 10k mi/yr | | | | | |
| cost per mile driven | \$1,554 | \$1,787 | \$2,113 | \$1,776 | \$2,137 |
| cost per year | \$5,185 | \$6,054 | \$8,013 | \$5,699 | \$6,831 |
| depreciation ¹ | -\$217 | -\$233 | -\$304 | -\$286 | -\$382 |
| total cost per year | \$6,521 | \$7,607 | \$9,822 | \$7,188 | \$8,586 |
| total cost per day | \$17.87 | \$20.84 | \$26.91 | \$19.69 | \$23.52 |
| total cost per mile² | \$0.6521 | \$0.7607 | \$0.9822 | \$0.7188 | \$0.8586 |
| Total Cost Per Mile - 15k mi/yr | | | | | |
| cost per mile driven | \$2,331 | \$2,681 | \$3,169 | \$2,663 | \$3,205 |
| cost per year | \$5,185 | \$6,054 | \$8,013 | \$5,699 | \$6,831 |
| total cost per year | \$7,516 | \$8,734 | \$11,182 | \$8,362 | \$10,036 |
| total cost per day | \$20.59 | \$23.93 | \$30.64 | \$22.91 | \$27.50 |
| total cost per mile² | \$0.5010 | \$0.5823 | \$0.7455 | \$0.5575 | \$0.6691 |
| Total Cost Per Mile - 20k mi/yr | | | | | |
| cost per mile driven | \$3,108 | \$3,574 | \$4,226 | \$3,551 | \$4,273 |
| cost per year | \$5,185 | \$6,054 | \$8,013 | \$5,699 | \$6,831 |
| depreciation ¹ | +\$235 | +\$252 | +\$328 | +\$310 | +\$414 |
| total cost per year | \$8,528 | \$9,880 | \$12,566 | \$9,560 | \$11,518 |
| total cost per day | \$23.36 | \$27.07 | \$34.43 | \$26.19 | \$31.56 |
| total cost per mile² | \$0.4264 | \$0.4940 | \$0.6283 | \$0.4780 | \$0.5759 |

¹Depreciation for mileage under or over 15,000 miles annually averaged over 5 years.

²Total cost per year ÷ total miles per year.



Driving Costs

Please note the figures in each vehicle category are the average costs for five top-selling 2020 models selected by AAA for this year's Your Driving Costs study.

| | Minivan | 1/2 Ton/Crew Pickup (4WD) | Hybrid Vehicle | Electric Vehicle | 2020 Weighted Average |
|--|-----------------|---------------------------|-----------------|------------------|-----------------------|
| Operating Costs | | | | | |
| fuel | 11.22¢ | 15.23¢ | 5.20¢ | 3.67¢ | 10.66¢ |
| maintenance | 9.42¢ | 8.80¢ | 8.19¢ | 7.46¢ | 9.12¢ |
| cost per mile | 20.64¢ | 24.02¢ | 13.38¢ | 11.13¢ | 19.79¢ |
| Ownership Costs | | | | | |
| full-coverage insurance | \$1,096 | \$1,242 | \$1,212 | \$1,227 | \$1,202 |
| license, registration, taxes | \$855 | \$1,127 | \$726 | \$74 | \$851 |
| depreciation (15k mi/yr) | \$4,250 | \$4,267 | \$3,519 | \$5,323 | \$3,721 |
| finance charge | \$803 | \$1,069 | \$684 | \$826 | \$819 |
| cost per year | \$7,004 | \$7,705 | \$6,141 | \$7,450 | \$6,593 |
| cost per day | \$19.19 | \$21.11 | \$16.82 | \$20.41 | \$18.06 |
| Total Cost Per Mile – 10k mi/yr | | | | | |
| cost per mile driven | \$2,064 | \$2,402 | \$1,338 | \$1,113 | \$1,979 |
| cost per year | \$7,004 | \$7,705 | \$6,141 | \$7,450 | \$6,593 |
| depreciation ¹ | -\$264 | -\$454 | -\$255 | -\$370 | \$335 |
| total cost per year | \$8,805 | \$9,653 | \$7,224 | \$8,193 | \$8,236 |
| total cost per day | \$24.12 | \$26.45 | \$19.79 | \$22.45 | \$22.57 |
| total cost per mile² | \$0.8805 | \$0.9653 | \$0.7224 | \$0.8193 | \$0.8236 |
| Total Cost Per Mile – 15k mi/yr | | | | | |
| cost per mile driven | \$3,096 | \$3,603 | \$2,007 | \$1,669 | \$2,968 |
| cost per year | \$7,004 | \$7,705 | \$6,141 | \$7,450 | \$6,593 |
| total cost per year | \$10,101 | \$11,308 | \$8,148 | \$9,119 | \$9,561 |
| total cost per day | \$27.67 | \$30.98 | \$22.32 | \$24.98 | \$26.19 |
| total cost per mile² | \$0.6734 | \$0.7539 | \$0.5432 | \$0.6079 | \$0.6374 |
| Total Cost Per Mile – 20k mi/yr | | | | | |
| cost per mile driven | \$4,129 | \$4,804 | \$2,677 | \$2,225 | \$3,957 |
| cost per year | \$7,004 | \$7,705 | \$6,141 | \$7,450 | \$6,593 |
| depreciation ¹ | +\$286 | +\$495 | +\$277 | +\$395 | \$364 |
| total cost per year | \$11,419 | \$13,004 | \$9,094 | \$10,070 | \$10,914 |
| total cost per day | \$31.29 | \$35.63 | \$24.91 | \$27.59 | \$29.90 |
| total cost per mile² | \$0.5710 | \$0.6502 | \$0.4547 | \$0.5035 | \$0.5457 |

¹Depreciation for mileage under or over 15,000 miles annually averaged over 5 years.

²Total cost per year ÷ total miles per year.

Behind the Numbers

AAA provides more than 61 million members with automotive, travel, insurance and financial services through its federation of 32 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.

AAA Car Care Resources

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

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 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.



Contents may be reprinted in part or in their entirety with attribution.

©AAA 2020