



THE CANDID COSTS OF CAR OWNERSHIP

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The National Association of Mutual Insurance Companies consists of more than 1,500 member companies, including seven of the top 10 property/casualty insurers in the United States. NAMIC member companies write \$357 billion in annual premiums and represent 69 percent of homeowners, 56 percent of automobile, and 31 percent of the business insurance markets.

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THE COSTS OF CAR OWNERSHIP: WHY IT MATTERS

almost 13 full days of driving.⁵

Futurists have been predicting the demise of the private passenger auto for decades – a quick online search on the topic yields hundreds of results rife with headlines like "Is Owning Your Car a Thing of the Past" and "Owning an Actual Car is Soon Going to Seem Obsolete."¹ Yet, there are more than 283 million vehicles on U.S. roads in 2022, with the most recent reports of vehicle miles traveled from the Federal Highway Administration finding that the number of cars being driven now surpass pre-COVID statistics despite elevated gasoline prices.² Automakers' marketing does not appear to perceive a slowdown in consumer interest in private passenger autos – they are projected to invest \$17 billion in U.S. advertising alone this year.³

For the significant majority of Americans, a car remains a necessity. With more than 76% of American commuters using their cars to move between home and work, the private passenger car remains the foremost mode of transportation, dwarfing public transportation, ride-sharing, bicycles, and all other options for transportation.⁴



Whether new or used, the purchase of a vehicle is a major life event that affects consumers for a significant period – after spending an average of three months in the market for a car, once



purchased, it will be a primary mechanism for going to work, running errands, taking kids to school, extracurricular activities, road trips, and future vacations. Recent studies indicate that more than 60% of Americans consider their vehicles a member of their families and more than half have names for their cars.6

All told, the average American in 2022 will spend 51 minutes per day behind the wheel – equivalent to

Unfortunately, with record numbers of cars and drivers come record numbers of crashes and fatalities, as NAMIC highlighted in its 2021 Riskier Roads report.⁷ NAMIC members proudly provide insurance coverage to protect more than 56% of the U.S. auto insurance market. It is this coverage that ensures critical financial safety and protects policyholders' assets from the damage their vehicles can do to other cars, people, and property. The cost of providing that coverage is profoundly affected by the

costs of vehicles themselves - costs which are often poorly understood and underestimated. It is with this in mind that NAMIC has assembled this Issue Analysis: The Candid Costs of Car Ownership, which can be used as a guide to better understanding and controlling the true costs of car ownership. Additionally, some major factors in the cost of auto ownership may not have an independent connection to the cost of insuring the vehicle, but still contribute to the overall cost of the risk being insured.

¹ https://www.usnews.com/news/best-states/articles/2018-07-17/is-owning-your-own-car-a-thing-of-the-past; https://fortune.com/2018/03/07/car-ownership-transportation-self-driving/

- ² https://www.fhwa.dot.gov/policyinformation/travel_monitoring/22augtvt/page2.cfm
- ³ https://www.insiderintelligence.com/content/automakers-spent-23-less-on-tv-advertising-june
- ⁴ https://www.weforum.org/agenda/2022/05/commute-america-sustainability-cars

- ⁶ https://www.autoevolution.com/news/most-americans-consider-their-car-part-of-the-family-study-shows-131774.html
- ⁷ https://www.namic.org/pdf/publicpolicy/220104_riskier_roads.pdf

⁵ https://aaafoundation.org/wp-content/uploads/2019/02/18-0783_AAAFTS-ADS-Brief_r8.pdf

CAR PRICES HAVE SOARED TO RECORD HIGHS IN 2022

Buying a car remains the second most expensive purchase behind a home that most people will make in their lifetimes.[®] Potential vehicle purchasers who have not been following the market will be in line for serious sticker shock upon hitting car lots any time in the near future.

The Bureau of Labor Statistics reports that the price of used cars and trucks increased by 6.6%, while the price of new vehicles jumped 10.4% over the past 12 months.⁹

The average price paid for a new vehicle in the fall of 2022 was the highest on record at \$48,301, up more than 12% from just a year ago, according to Kelley Blue Book and Cox Automotive.¹⁰ That figure represents 72% of the U.S. median household income.¹¹

The average monthly payment for a new car climbed from \$648 in the first quarter to a record \$712 this summer.¹² At the moment, demand is also outstripping supply in the face of supply chain challenges, meaning that auto dealers are actually able to get above-suggested retail price in many instances – sometimes as much as 24% above sticker price.¹³

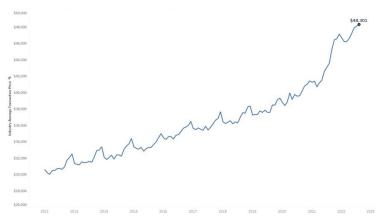


Fig. 1: New Vehicle Average Transaction Price: 2012 – 2022¹⁴

Supply chain challenges have also caused unusual activity in used-vehicle markets, significantly decreasing the pace of depreciation for many vehicle models, and in some cases, actually increasing their value. The average transaction price for a used car rose to \$33,341 in August 2022 – more than \$10,000 above projected normal price patterns for used cars, according to data collected by the vehicle shopping assistant company CoPilot.¹⁵ This is consistent with a similar increase in the median listing prices over the last two years according to data received from CARFAX. While prices came down slightly in September, they remain more than 33% above projected normal levels for used cars.¹⁶

- ⁸ https://newsroom.aaa.com/2021/08/sticker-shock-owning-a-new-vehicle-costs-nearly-10000-annually/
- ⁹ https://www.bls.gov/news.release/cpi.nr0.htm
- ¹⁰ https://www.coxautoinc.com/market-insights/kbb-atp-august-2022/
- ¹¹ https://www.census.gov/library/publications/2021/demo/p60-273.html
- ¹² https://www.foxbusiness.com/markets/average-car-payment-hits-record-712-month-new-used-car-prices-continue-climb
- ¹³ https://www.cnbc.com/2022/09/21/new-car-prices-buyers-are-paying-well-above-sticker.html
- ¹⁴ https://www.coxautoinc.com/market-insights/kbb-atp-august-2022/
- ¹⁵ https://www.autoweek.com/news/industry-news/a40690607/average-used-car-price-is-now-33000-dollars/
- ¹⁶ https://www.copilotsearch.com/index-report-10-2022/

Fig. 2 Used Vehicle Average Transaction Price: July 2020 – June 2022

CoPilot Return to Normal Index: All Used Cars (June 2022)



Fig 3. Median Listing Prices for Used Vehicles (Jan. 2020 - Sept. 2022)

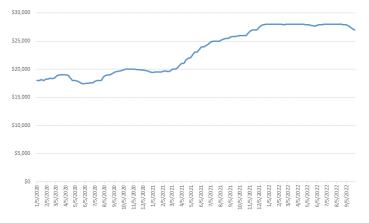
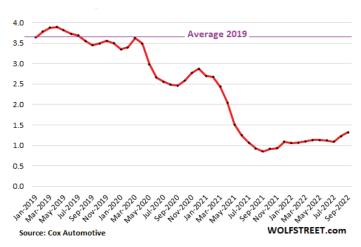


Fig. 4 New Vehicle Inventory for Dealers – Sept. 2022

New Vehicle Inventory in Stock & in Transit *Million vehicles, at end of month*



Inflation

One of the most frequently heard and misunderstood words across society in 2022 has been "inflation." While policymakers argue over technicalities of the definition, the basic meaning is simply **the increase in prices of goods and services over time corresponding with a decrease in the value of money.**

The U.S. Bureau of Labor Statistics confirmed a 40-year high in inflation surge in June 2022, arising out of a complex and unstable global economic situation that included COVID disruptions, supply chain bottlenecks, worker shortages, and geopolitical conflicts, among other things. American consumers see this manifest in the form of higher costs for all consumer goods, including cars, car parts, and labor costs for vehicle-related services.

Despite these record prices, severe inventory limitations on new and used car lots, and extreme inflationary pressure,¹⁷ consumers continue to wade into the market to purchase vehicles, even as the Consumer Price Index on both new and used cars are at all-time highs in 2022.^{18,19}

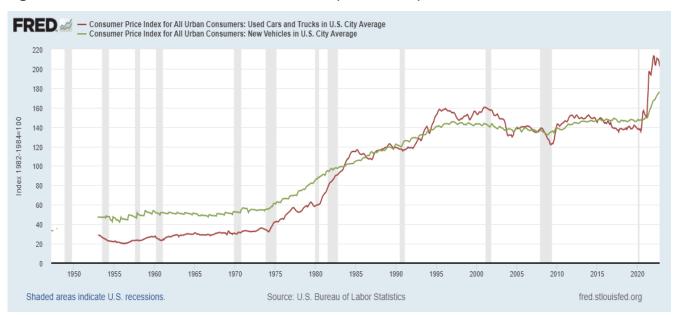


Fig 5. Consumer Price Index for New and Used Vehicles (1955 – 2022)²⁰

The remainder of this analysis will be dedicated to explaining six main areas of vehicle ownership costs consumers should take into consideration as they evaluate potential purchases and understand down-the-line implications of owning and insuring their vehicles – in other words, the candid cost of car ownership.

¹⁷ https://www.ft.com/content/b91996b3-79b2-4f41-acc9-651a0952008f

- ¹⁸ https://seekingalpha.com/article/4519140-new-vehicle-inventory-stuck-near-record-lows-gets-worse
- ¹⁹ https://fred.stlouisfed.org/series/CUUR0000SETA01

²⁰ https://fred.stlouisfed.org/series/CPIAUCSL#

VEHICLE COST 1: FINANCE CHARGES

Given the above trends in vehicle purchase costs, more and more American families simply can't afford to buy a car in cash – consumers now owe a collective \$1.43 trillion on the vehicles they drive, with the average auto loan balance exceeding \$20,000 for the first time.²¹ On average, Americans take out more than \$60 billion in new auto loans each month, and the average term is up to 70 months – nearly six years.²² Purchasing a vehicle with financing ultimately means paying more than the price of the vehicle, even after manufacturer and dealer incentives.

The decision to pursue a vehicle loan involves multiple considerations that consumers should be aware of, all of which influence the ultimate cost of the loan. Factors that consumers should bear in mind when evaluating a potential vehicle loan include:

- Credit score: A consumer's current score will affect the loan options offered. A new loan will reduce the average age of credit, but also provides a new opportunity to display responsible behavior with timely payments.
- Interest rate: Interest rates can be negotiated with either an external lender or the vehicle dealership. As interest rates go up, so will the amount paid on a monthly and cumulative bases.
- Length and amount: Longer payment periods and greater overall amounts of payments will both result in loans that are ultimately more costly to a consumer due to higher cumulative interest payments.
- **Down payment**: Larger down payments can reduce the overall cost of a vehicle by reducing the percentage being financed.
- New/Used/Leased: New, used, and leased cars are likely to be treated differently by vehicle financing companies; a consumer should be certain that the financing company has accurate information about the primary driver and the vehicle being purchased. Used vehicles typically carry higher interest rates because lenders view them as a riskier investment due to depreciation.

It is worth noting that some of the factors listed above are interdependent; financing companies often consider the totality of a consumer's situation when developing offerings. Consumers are also well served to remember that the purchase and financing of a vehicle often takes place in three separate phases of negotiation:

- 1. The vehicle price;
- 2. The value of a trade-in (if applicable); and
- 3. The rate for financing.

²¹ https://www.experian.com/blogs/ask-experian/research/auto-loan-debt-study/
²² https://www.lendingtree.com/auto/debt-statistics/

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Treating the three phases of negotiation as separate can help consumers maintain more control over each of the individual negotiations, and ultimately make a big difference in the financing rate. While the financing transaction is generally a one-time decision, approximately 12% of consumers refinance their auto loan in any given year; according to the recent State of Auto Refinance study by Rategenius, consumers saved an annual average of \$1,158 by refinancing in 2021.²³ In any event, the financing decision is one of the first, but certainly nowhere near the last, decision contributing to the ultimate cost of vehicle ownership over the years.

Decisions around the financing of a vehicle also ultimately affect the cost of insuring that vehicle. While insurers do not charge more for having a loan, when leasing or financing a new car, many lenders require individuals to have collision and comprehensive coverage on the vehicle until it is paid off. Additionally, consumers in this situation will often want to consider purchasing gap insurance, which helps pay off a car loan if a vehicle is totaled or stolen and the consumer owes more than the car is worth.



Example: John Doe bought a new car for \$40,000. He still owed \$30,000 to his lender when the car, now worth \$25,000 due to depreciation, was totaled in a covered collision. Without gap insurance, John will owe his lender \$5,000. Gap insurance helps cover the gap between the \$25,000 value and the \$30,000 still owed on the vehicle.

²³ https://www.rategenius.com/state-of-auto-refinance

VEHICLE COST 2: DEPRECIATION

At its most basic level, vehicle depreciation refers to the difference between the value of your car when you bought it and its value when you sell it. It has long been an accepted fact that a car is an asset that starts depreciating the minute you drive it off the lot – cars lose most of their value over time. While some makes and models hold value much better than others, according to used car pricing experts at Black Book, historically most cars lose 20% to 30% of their value during the first year of ownership.²⁴

Time Period	Customary Depreciation Level
1 minute	9-11%
1 year	20-30%
2-4 years	15-18%
5 years	60%

With time as the No. 1 enemy, prior to 2022, depreciation was frequently the primary factor in calculating new vehicle costs, accounting for nearly 40% of all ownership expenses. However, this year's unexpected market disruptions caused by the supply shortages noted earlier have created a highly unusual dynamic where some new vehicles, particularly those driven fewer than 10,000 miles per year, have actually appreciated in value, according to recent research by AAA.²⁵ While the overall cost of new car ownership has increased to \$10,728, the amount of annual depreciation is trending downward as vehicle reliability and durability continues to increase.²⁶ These unusual market dynamics have also created a situation where insurers face higher costs to insure and repair vehicles at a higher value for a longer period of time than historical data would have predicted.

From a consumer's perspective, the best practice car owners can do to control depreciation is to limit the number of miles a vehicle is driven; however, it is also valuable to understand some of the external factors that affect the rate of depreciation, like:

- **Consumer preferences** Just like fashion trends, tastes change over time the ping-ponging between sedans, SUVs, and trucks; more popular models simply don't depreciate as much because demand for them remains stable;
- Features and Options Luxury features and add-ons help vehicles hold their value longer than base models;
- Condition Cars that are well maintained with accurate and complete service records will experience less depreciation;
- **Reputation** This is the least scientific factor, but the unofficial reputation of a vehicle manufacturer or even a particular model where recalls and reliability are concerned can play a significant role in depreciation; and
- Fuel Economy Particularly as fuel prices remain high (more on this later), vehicles with better gas mileage will tend to hold their value longer.

²⁴ https://www.blackbook.com/

²⁵ https://newsroom.aaa.com/wp-content/uploads/2022/08/2022-YDC-Costs-Break-Out-by-Category.pdf

²⁶ https://newsroom.aaa.com/wp-content/uploads/2022/08/2022-YourDrivingCosts-FactSheet-7-1.pdf

Along with minimizing the overall use of a vehicle, owners can further protect their assets and control costs through consistent and careful maintenance, which will improve the life of the vehicle and reduce the cost of insuring the vehicle in the long run.

VEHICLE COST 3: MAINTENANCE & REPAIRS

Like any machine, cars require periodic maintenance and repairs, and in the words of Founding Father Benjamin Franklin, "an ounce of prevention is worth a pound of cure."²⁷

Nearly two-thirds of respondents to a recent cars.com survey confessed they service their vehicle more often than they go to the dentist or doctor.²⁸

While many vehicle manufacturers tout their factory warranties, those warranties typically last for three years / 36,000 miles; however, the reality is that most cars on the road are much older, with the average car in the U.S. recently eclipsing 12 years.²⁹ What happens between year 3 and year 12 makes a monumental difference in the ultimate cost of owning that vehicle.

Keeping older vehicles running well can involve extensive costs; the best way to avoid large repair expenses is routine maintenance focused on the most frequently used and most likely to fail parts and systems. While not free, the average costs for auto maintenance are minimal in comparison to major repairs where parts and labor are concerned. Specific maintenance schedules and the costs of replacement parts vary widely across vehicles, regions, and auto care facilities, but general periodic inspections and maintenance services to factor into one's cost of owning a vehicle include:

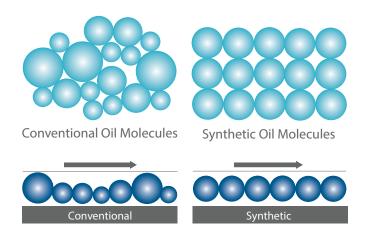
Part/Service	Frequency	Estimated Cost
Tire Rotation	5,000 – 8,000 miles	\$30 - \$50
Tire Alignment	6,000 – 10,000 miles	\$50 - \$100
Tire Replacement	6 Years / 80,000 miles	\$50 - \$250 per tire
Oil & Filter Changes	5,000 – 7,500 miles	\$35 - \$125 (Full Synthetic)^
Air Filter Replacement	15,000 – 30,000 miles	\$35 - \$80
Brake Pad Replacement	10,000 – 20,000 miles	\$200 - \$400
Windshield Wiper Replacement	6 months	\$10 - \$50
Belt	5 Years / 50,000 miles	\$100 - \$200
Hoses	4 Years / 40,000 miles	\$100 - \$300
Spark Plugs	80,000 miles	\$150 - \$300

^ Greasing the Engine: Conventional vs. Semi-Synthetic vs. Full Synthetic Oils

²⁷ https://founders.archives.gov/documents/Franklin/01-02-02-0002

28 https://www.cars.com/articles/americans-put-their-cars-first-two-thirds-service-their-vehicle-more-often-than-they-go-to-the-dentist-cars-com-survey-reveals-408709/

²⁹ https://www.kbb.com/car-news/americans-driving-older-cars/



One example of an interesting development contributing to changing costs in recent years has been the increased use of additives in oil used to keep vehicle engines running. Blends and full synthetics last longer and are more effective at protecting engines against sludge, corrosion, and rusting from water contamination due to their efficiency represented in the simplified graphic above. They also come at a much higher price point, usually between double and quadruple the cost of conventional motor oil. Once reserved for high performance cars, synthetic oil is now recommended for more than 70% of new vehicles. As the use of conventional motor oil decreases, the average price of an oil change will trend toward the higher end of the spectrum outlined above.

PARTS & REPAIR COSTS

Proper maintenance of systems such as those listed greatly diminishes the chance of a more significant and more expensive unexpected and/or unbudgeted repair, whether it arises out of a covered insurance loss or not. It should also come as no surprise that like all other consumer goods, the cost of vehicle parts is increasing exponentially, rendering each of the previously recommended services more expensive, as well. The most recent Consumer Price Index indicates a massive increase in the cost of motor vehicle parts and equipment – whether they are being purchased by retailers, owners, or repair shops that eventually bill insurers when repairing a covered loss.³⁰

³⁰ https://fred.stlouisfed.org/series/CUUR0000SETC#

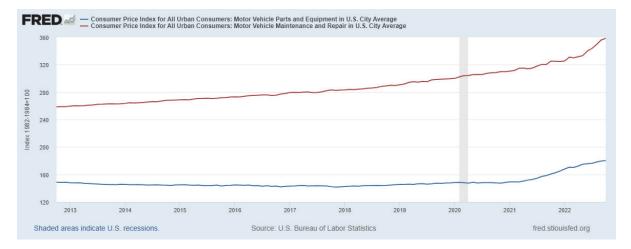


Fig. 4 – Consumer Price Index for Motor Vehicle Parts, Maintenance, and Repair – Oct. 2012-2022³¹

Recent analyses of repair patterns indicate that as parts costs and shortages continue to hit, Americans are making fewer, but costlier repairs to their vehicles.³² While some of this can be attributed to the challenges outlined earlier, much of the increase also comes from technological advancements – even base model vehicles now come with as many as 150 microchip processors; and the replacement of a single windshield with advanced technology like rain sensors and display reflectors can easily eclipse \$1,500.³³ Rather than hammering out a steel bumper with a rubber mallet on an older model, a technician repairing a newer vehicle involved in a minor fender-bender likely involves replacement of a camera and multiple ultrasonic sensors. Many of these technologies involve running electronic components throughout the vehicle – backup cameras, built-in navigation, and many newer Advanced Driver Assistance Systems like lane departure warnings, pedestrian detection, and automatic emergency braking – do not have simple or cosmetic fixes and often require extensive testing and calibration following repairs. These features, along with the need for more specialized training and knowledge for the technicians completing those repairs, ultimately mean more time and cost for such work and more time without the vehicle for the owner, often in a rental car paid for by his or her insurer. In addition to making cars more expensive to purchase, the same technologies make their repairs and replacement more expensive, a financial responsibility that also most often falls on insurers.

³¹ https://www.drivesafeonline.org/vehicle-maintenance/synthetic-vs-conventional-oil/

³² https://www.kbb.com/car-news/parts-labor-shortages-have-americans-delaying-car-repairs/

³³ https://www.kbb.com/car-news/it-may-cost-more-than-you-think-to-replace-windshield/

NEW/LINGERING PANDEMIC-RELATED MAINTENANCE CHALLENGES AND REPAIR DELAYS

As the world responded to the spread of COVID-19, vehicle manufacturers and auto repair shops were not immune to delays – whether due to facility shutdowns, social distancing restrictions, shipping delays, or labor shortages – most of these businesses found themselves facing shared issues of limited supply and increased auto parts prices at the same time. These shortages are beginning to ease but will remain a challenge well into 2023.

In one particularly notable example, Ford shut down several assembly plants for lack of global semiconductor chips necessary to manufacture its iconic Mustang, and it was reported that several parking lots in Detroit were full of nearly completed F-150 trucks awaiting chip installation to be shipped to dealers.^{34, 35} Worldwide, automakers are still evaluating existing business models as inventory concerns continue to swirl.³⁶ Automakers' challenges in this arena invariably affect all vehicle purchasers and owners downstream – if manufacturers are unable to get their hands on the parts needed to build cars, what does that mean for repair shops, body shops, and retail parts sellers? Ultimately, it can only mean one thing: **higher costs** for everyone in the auto ownership value chain from dealers to consumers, insurers, and repair shops, no matter how diligently they are attempting to keep costs low by performing the advised routine maintenance.



³⁴ https://www.detroitnews.com/story/business/autos/ford/2022/04/29/parts-shortages-prompt-downtime-some-ford-plants-north-america/9584690002/

³⁵ https://www.erieinsurance.com/blog/car-chip-shortage-2022

³⁶ https://www.kbb.com/car-news/is-the-end-of-the-chip-shortage-in-sight/

VEHICLE COST 4: FUEL

June 2022 found Americans facing record gasoline prices at the pump with the national average eclipsing \$5 per gallon for regular unleaded fuel.³⁷ Recent polls indicate at least half of adults report gas prices are a major factor when considering their next vehicle purchases. The U.S. Department of Energy now encourages potential car buyers to consider fuel economy as part of the price of new vehicle purchases, and it has developed consumer-facing calculators for both gasoline and alternative fuel vehicles.^{38, 39, 40} The Congressional Budget Office notes that historically, periods of high fuel costs lead to shifts in consumer behavior, resulting in increased interest in smaller, more efficient vehicles.⁴¹ At present, concerns over fuel costs are more likely to lead to a significant increased interest in electric vehicles (EVs) – a recent survey by AAA found that of the nearly one-quarter of Americans who would consider buying an EV, 77% cited the cost of gas as a top reason; conversely EVs may cost as little as 4 cents per mile to charge at home.⁴²

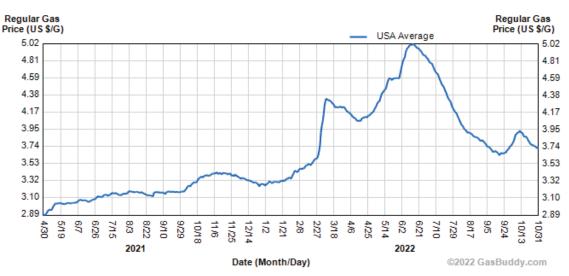


Fig. 6 – 18 Month Average Retail Gas Price Chart

³⁷ https://www.gasbuddy.com/charts

- ³⁸ https://www.fueleconomy.gov/feg/findacar.shtml
- ³⁹ https://afdc.energy.gov/calc/cost_calculator_methodology.html
- ⁴⁰ https://morningconsult.com/2022/03/09/gas-prices-shifts-driving-purchasing-behavior/
- ⁴¹ https://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/88xx/doc8893/chapter2.6.1.shtml

⁴² https://newsroom.aaa.com/2022/07/americans-reveal-fresh-thoughts-on-electric-vehicles/

Fortunately, there are some straightforward tips all consumers can use to improve their vehicles' gas mileage with good maintenance and driving habits. CARFAX estimates that for a car driven 12,000 miles a year, these tips could save more than 116 gallons, or \$600, per year.⁴³

- Proper Tire Inflation: Improves handling and decreases wear.
- Lower Resistance Tires: Tire manufacturers have invested significant research and development into tires that reduce the effort it takes to keep rolling.
- Oil & Gas Selection: Use of proper viscosity oil and gasoline; manufacturers specify the recommended liquids to put in the vehicle to maximize efficiency.
- Tune-Ups: Regular maintenance like filter replacements or fuel and exhaust system checks.
- Reduce Unnecessary Cargo: Avoid the temptation to turn vehicles into giant purses or add on rarely used items like roof mounts, cargo boxes, or bike racks. According to the Environmental Protection Agency, every extra 100 pounds in a vehicle diminishes gas mileage by roughly 1%.
- Smooth Braking and Acceleration: Rapid acceleration and braking could lower your gas mileage by roughly 15% to 30% at highway speeds and 10% to 40% in stop-and-go traffic, according to the DOE.⁴⁴
- Reduce Speeds: Each car has a different optimal fuel economy speed, but as a general matter, gas mileage decreases rapidly above 50 mph. A study by the Oak Ridge National Laboratory calculated that each 5 mph over 50 mph is the equivalent of paying an extra \$0.26 per gallon.⁴⁵

While the cost of fuel does not have as direct a correlation to the cost of providing insurance as other vehicle costs, it plays an important role in dictating vehicle purchasing and usage trends that are key for insurers to use in their overall assessment of road and vehicle risks.

Electric Vehicle Hesitancy

While many consumers are interested in EVs, the reluctance to complete purchases remains strong, with EVs representing fewer than 1% of vehicles on U.S. roads today. Primary concerns include:

- Cost and availability of tax credits (average transaction price is now \$66,997)
- Charging stations (DOE reports 55,674 stations nationwide)
- Running out of charge
- Long-distance travel
- Battery repair/replacement cost
- Unable to install charging station at home

⁴³ https://www.carfax.com/blog/how-to-save-gas

⁴⁴ http://www.fueleconomy.gov

⁴⁵ http://www.ornl.gov/news/sensible-driving-saves-more-gas-drivers-think

VEHICLE COST 5: FEES AND TAXES



Returning to Benjamin Franklin for another famous quip, following the signing of the U.S. Constitution, Franklin is quoted as saying that "in this world, nothing is certain except death and taxes."

This remains true, especially where auto ownership is concerned. While many taxes on vehicles were instituted at a time when cars were considered luxury items, cars today have become essential sources of ongoing revenue for state and local governments. In some instances, however, they are seen as social policy levers to encourage certain behaviors by vehicle purchasers, e.g., tax credits for vehicle trade-ins or for the purchase of electric vehicles. Attendant to the ownership of a vehicle that can legally drive on public roads are numerous state and local fees that must be considered when purchasing a car.

The first tax to consider is the basic sales tax. No matter where a new vehicle is purchased, some of the same sales taxes applicable to other consumer goods will apply to a car changing ownership – the national average for this tax is 5.75%.⁴⁶ Additional taxes at the point of sale may come in the form of excise taxes, which may be based on a vehicle's weight, fuel efficiency rating, or electric vehicle designation; however, depending on the state and the vehicle, some of these taxes paid at the point of sale may later be deducted when filing income taxes. In some states, the total taxable amount of the transaction may be reduced by a trade-in credit, and in a handful of states there is no sales tax on used vehicles.

In addition to the sales tax, every state requires motor vehicles to be registered and titled with the state's transportation agency or department of motor vehicles. Every state differs in its exact registration, licensing, titling, and usage tax scheme.⁴⁷ While some states assess annual or biannual flat registration fees, others use scaled metrics considering factors like the vehicle's:

Weight
 Age

- Horsepower
- Value
 Fuel efficiency / Fuel Source
- Owner's Age (for senior discounts)

Approximately half of all U.S. states also charge an annual personal property tax on vehicles; in some states such taxes average more than \$1,100 per year.⁴⁸ In addition to state fees and taxes, many local county and city governments impose additional vehicle taxes, which render accurate comparisons across jurisdictions extremely difficult. These local charges come in many forms, including property taxes, emissions taxes, road tolls, congestion charges/flex pricing, neighborhood parking placard fees, or even as local additions to insurance premiums. In some instances, these taxes are subject to adjustments or exemptions upon request and may be deductible from other taxes owed.

Taxes and fees also become part of an insurance transaction in the event of a crash resulting in a total loss or a salvage declaration. Depending on the particular jurisdiction and policy coverages, insurers may be responsible for some of the aforementioned costs associated with purchasing a replacement vehicle, including sales tax, title, and vehicle registration. Consumers will be well served to educate themselves about the particular tax structures in their jurisdictions and will need to factor government requirements into the overall price of auto ownership and insurance coverage selection as they plan purchases.

⁴⁶ https://www.stilt.com/blog/2020/11/how-much-tax-will-i-pay-for-a-used-car/

⁴⁷ https://www.ncsl.org/research/transportation/registration-and-title-fees-by-state.aspx

⁴⁸ https://blog.carvana.com/2020/03/do-you-have-to-pay-taxes-on-your-car-every-year/

VEHICLE COST 6: INSURANCE

While most of the previously discussed costs are tied to insurance, the premium paid for coverage is itself also a cost owners must consider. Auto insurance is mandatory in all but two states; as the costs of vehicles and other items they can damage increase, so will the cost of providing financial security for those situations. Every driver has different needs, and coverage varies widely in the highly competitive auto insurance marketplace. The ultimate cost of insuring a vehicle depends on characteristics of the vehicle itself, the driver, and the details of the coverage elected. As a general matter, more expensive and rarer vehicles also cost more to insure because they cost more to repair or replace. As insurers and their partners in the auto repair industry⁴⁹ wrestle with the current inflationary environment, supply chain challenges, increased repair and parts costs, longer repair wait times, increases in crash frequency and severity,⁵⁰ and record rates of car theft,⁵¹ potential car buyers are well served to become better educated and informed about their insurance coverage and options.



⁴⁹ https://cbs58.com/news/auto-shop-owners-labor-shortage-reckless-driving-contributing-to-car-repair-backlog

⁵⁰ https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813376

⁵¹ https://www.nicb.org/news/news-releases/nicb-report-finds-vehicle-thefts-continue-skyrocket-many-areas-us

While consumers have limited control over broad economic patterns and some of the costs outlined earlier like fuel and taxes, they have significantly more power over insurance choices as would-be policyholders seeking coverage from competing carriers. These basic considerations for consumers will help select appropriate insurance to cover a vehicle and should be part of the purchase decision because ultimately insurance premium payments also contribute to the overall cost of car ownership.

Basic Coverage Explanations

- Liability: The amount that may be paid out for damages or injuries you cause to others. This is most often further broken into bodily injury and property damage. State law generally establishes minimum liability coverage required to drive.
- Collision: This coverage pays to repair your car or, in the event a car is totaled beyond repair, it pays your car's current value.
- **Comprehensive**: This coverage pays for damage to your car that is not from a collision things like fire, theft, vandalism, hail, flood, or animal strikes, for instance.
- Medical Payments: This coverage pays to treat injuries to you and your passengers.
- Personal Injury Protection: This coverage, which is mandatory in some states, pays to treat injuries to you and your passengers no matter who is at fault but may also pay for things such as lost wages or funeral costs.
- Uninsured Motorist: This coverage pays for injuries to you, your passengers, and property if you are hit by a hit-and-run driver or an uninsured driver who is at fault.
- Underinsured Motorist: This coverage pays for injuries to you, your passengers, and property if you are hit by a driver without sufficient insurance who is at fault.

Premium Reduction Opportunities

- **Deductible**: Choosing higher deductibles reduces the premium owed by a consumer because the insurer will be responsible for paying less in the event of a claim.
- Discounts: Insurers provide different kinds of potential discounts for qualifying consumers any consumer purchasing a new car should take the time to inquire about the availability of discounts for bundling, vehicle safety features, anti-theft devices, defensive driving courses, usage-based insurance participation, paperless billing, etc.
- Shop Around: Auto insurance is a highly competitive industry; seeking out multiple quotes from multiple carriers to make fair comparisons and informed decisions will result in the best outcome for savvy consumers.

CONCLUDING THOUGHTS

According to a recent Quicken survey, about 30% of Americans planned to buy a car in 2022, but rising prices led about 60% of potential buyers to reconsider.⁵² This is not surprising in light of overwhelming inflation and the host of factors influencing the cost of modern vehicle ownership laid out throughout this paper. At the same time, vehicle ownership remains a necessity for most Americans, and unfortunately, there is little reason to expect relief on the identified cost pressures in the immediate future. If costs remain at all-time highs, legislators and regulators are likely to continue hearing about these challenges from constituents. NAMIC will continue to engage these policymakers in substantive discussions of proactive measures to reduce the overall cost of providing insurance and support efforts to improve road safety. As consumers consider future vehicle purchases, NAMIC and its member companies remain committed to providing policyholders with accurate, useful, and timely information about costs and considerations to better inform their vehicle ownership and insurance decisions.

⁵² https://www.prnewswire.com/news-releases/quicken-survey-shows-home-and-car-purchases-are-being-put-on-hold-due-to-economic-uncertainty-301585583.html

The National Association of Mutual Insurance Companies consists of more than 1,500 member companies, including seven of the top 10 property/casualty insurers in the United States. NAMIC member companies write \$357 billion in annual premiums and represent 69 percent of homeowners, 56 percent of automobile, and 31 percent of the business insurance markets.

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