The True Cost of Owning a Car

It won't come as any great shock that owning a car can be quite expensive. However, as you grow beyond your high school years, become more independent, get a job, save money, and become a responsible young adult, you'll realize there is more to owning a car than:

1. Buying the car
2. Getting the keys
3. Parking in the driveway
4. Relying on parents for unexpected expenses

Buying your first car is a huge step toward independence, but independence comes with responsibilities. To succeed, it's important to understand the true financial responsibility that comes with owning a car.

Of course there is the initial cost of acquisition or buying the car. Also keep in mind the need for maintenance, repairs, insurance, and the seemingly endless rise in gas prices! Sure, it's exciting to daydream about your first car and how cool you'll look driving it. Be realistic, and don't forget to ask yourself:

- How am I going to afford to buy a car?
- How much can I afford to spend?
- Will I need a finance option?
- How much do I need for the title, tax and registration?
- How much will insurance cost?
- How much will I pay monthly for gas?
- How often can I expect oil changes, batteries, tires and other routine maintenance expenses?
- What about unexpected repairs?

If you already have a job, save your money, and created and stuck to a budget, you're ahead of the game. Before you dive into buying a car, get a handle on how it will impact your budget.

Acquisition

Let's start right at the beginning with an acquisition or buying the car. Whether you plan to buy your first car from a neighbor, a used car lot, or straight from the showroom floor, expect to spend some serious cash.

Due to a sluggish economy, the value of used cars has soared because people need to minimize costs whenever, and wherever they can. Even the neighbor down the street won't be giving it away.

Used car dealers know that their products are in high demand, so price negotiation may be tough. Even with rebates and incentives, new car dealers are demanding high prices for new vehicles.

Private Deal/Cash

If you are patient and disciplined enough to save for the entire purchase price before buying, that's great. Your persistence will pay off immediately, because you'll avoid a monthly **car payment** and the interest charges that go with them. Don't forget that you'll need more than the purchase price to account for fees and taxes on top of the purchase price. To make that car your own, you'll need to get a new **title** (proof of ownership), **insurance,** car **registration,** and a license plate. These costs alone can climb into the several-hundred-dollar range so buying a car outright will mean saving more than just the purchase price.

Financing the Purchase

Whether you buy from your neighbor in a private deal or off a car lot, financing the car is an option many people use. This means paying a **down payment** and borrowing the rest. However, the neighbor isn't likely to finance the car for you, he wants to sell the car and exchange it for cash. Financing a private deal purchase would entail obtaining financing from a bank, credit union or other financial institution. This can be an obstacle for many first-time car buyers. In fact, even purchasing the car and obtaining financing from a dealer can be a problem. Here are a few of the barriers that you will likely encounter when trying to finance your first car:

- Lack of credit history is the biggest barrier
    - It is very difficult to get a car loan
    - Some lenders will require that your car payment not exceed 40 percent of your gross monthly income
- Interest rates charged on approved car loans for first-time buyers with little or no credit history can be quite high
- Lenders won't approve car loans for vehicles more than 5 years old
- Many lenders won't approve car loans for vehicles with more than 90,000 miles
- There may be minimum finance limits; you may be denied a loan if you aren't asking to borrow enough
- Many lenders have a strict age limit of 18 years old, before they will loan
- With a 20 percent **equity position**, you may have to put no less than 20 percent of the purchase price down as a down payment
- **CARFAX Report** – lenders might deny a loan request based on the lack of a CARFAX Report or based on the contents of the report if it's available
    - A CARFAX Report is a report that is the result of a records search on the vehicle. This report covers all insurance and law enforcement data entered about this vehicle. It is accumulated based on the vehicle's VIN number (Vehicle Identification Number or serial number).

Here is some information you should know before you go looking for that ride.

Car Dealers New and Used

Most car dealers have strict procedures to decide when they will (or won't) finance a car. Here are some common guidelines.

- Minimum finance amount is $7,000
- No financing for a vehicle older than five years
- No financing for a vehicle with more than 90,000 miles
- Minimum financing age is 18 years old
    - Younger customers may apply for financing with a **cosigner**
- Must put 10 – 20 percent down to create equity
- First-time buyer with little/no credit history will receive interest rates in the range of 12 – 16 percent. The better your credit, the better your interest rate.

Credit Unions

Another financing option, and one that could provide financing for a private deal purchase, is a credit union. Credit unions differ from commercial banks, because you must become a member before you can open an account or request a car loan. Interest rates through credit unions are traditionally much better than through dealers; however, some of the same provisions still apply, such as the better your credit the better your interest rate.

- Financing may not be available for older vehicles

- Loan term limits apply directly to the age of the car
- Minimum age to obtain financing is 18 years old
    - Younger customers may apply for financing with a **cosigner**
- A 20 percent equity or $2,500 down payment is required
- Sample interest rate on new vehicles: 8.24 percent (in 2011)
- Sample interest rate on used vehicles: 7.74 percent (in 2011)
- Monthly car payment cannot exceed 40 percent of your gross monthly income

Cash or Financing – What about My Budget?

If you can purchase the car, pay cash and finance nothing, you'll do your monthly budget a huge favor. There won't be a monthly car payment to factor in to your monthly budget. There are plenty of other monthly budget items to include for the car, so removing a monthly car payment would be helpful!

However, if financing your purchase through a credit union to buy the car in a private deal or through a dealer, a car payment is inevitable. As we've seen already, there may be limits on the financing in terms of the amount borrowed and length of term for the loan. Once you've decided to finance, the amount of the loan, length of the loan, and the interest rate become huge factors in determining your monthly car payment.

Car payment calculators are available online, are easy to use, and accurate. Or, you can do the calculation yourself by knowing these three important pieces of information:

1. **Principal Amount** – how much money you need to finance
2. **Interest Rate** – what interest rate you will be charged for the loan
3. **Term in Months** – how many months the loan will last

The formula to calculate the monthly payment on an original principal loan amount **(P)** at an annual interest rate **(I)** that will be necessary to pay off the entire loan in **(N)** months looks complicated, but it's simple:

$$MonthlyPayment = \frac{(P \times (I \div 12))}{(1-(1+(I \div 12))^{-N})}$$

P = Principal amount of the loan
I = Interest rate of the loan
N = Number of months you wish to pay off the loan

Let's try it out:

A buyer wants to purchase a <u>$25,000</u> automobile at <u>6 percent interest,</u> and pay off the loan entirely in <u>three years</u>.

P = $25,000
I = 6 percent = .06
N = 3 years = 36 months

Now, let's use the formula:

$$MonthlyPayment = \frac{(P \times (I \div 12))}{(1-(1+(I \div 12))^{-N})} = \frac{(25000 \times (.06 \div 12))}{(1-(1+(.06 \div 12))^{-36})}$$

$$= \frac{(25000 \times .005)}{(1-(1+.005)^{-36}}$$

$$= \frac{(125)}{((1-(1.005)^{-36}}$$

$$= \frac{(125)}{(1-.83564)}$$

$$= \frac{(125)}{0.16436} = 760.53$$

Monthly Payment will be **$760.53**

Here are more examples so you can check your math:

Amount Borrowed	Interest Rate	Term (Years)	Monthly Payment
$7,000	8.2 percent	4	$171.55
$9,000	12 percent	4	$237.01
$11,000	16 percent	5	$267.50

Remember, many of the lenders that approve car loans require a down payment of up to 20 percent of the purchase price. So, a $16,000 purchase would result in $3,200 in down payment, and $12,800 would be the amount financed.

Tag, Title, and Tax

Tag, title, and tax are terms given to an initial cost of purchasing a vehicle. The tag refers to the license plate, which requires you to register the vehicle with the Department of Motor Vehicles (**DMV**). The **title** is the official document of ownership that proves you are the rightful owner of the car, and tax is the amount charged by the state and local governments on the purchase price.

All 50 states charge a fee for registering a vehicle; however, each state's fee may be different. Most states base their fees on the weight of the vehicle. We present an example of how a typical car registration would be calculated in the state of Florida.

Because these costs are almost immediate, many lenders will allow them to be rolled into the financing, or at least added to the purchase price when calculating the amount of the loan. The **registration fee** charged for a vehicle is based on the vehicle's weight. For this reason, coming to an exact cost for budgeting purposes is done by finding the weight of the actual vehicle you are purchasing, and locating the appropriate entry in the following example table:

Classification	Weight	Annual tax and other fees
Automobiles	Up to 2,499 lbs	$46.15
Automobiles	2,500 – 3499 lbs	$57.15
Automobiles	3,500 lbs +	$70.65
Trucks	Up to 1,999 lbs	$46.15
Trucks	2,000 – 3,000 lbs	$57.15
Trucks	3,001 – 5,000 lbs	$70.65

Additional Fees:

Initial Registration Fee = $225.00
This is charged when the applicant does not have a Florida registration to transfer.

OR

Transferring a license plate from another vehicle	$7.35
New metal license plate	$28.00
County mailing fee and branch fee	$1.20

As far as budgeting is concerned, the annual tax is the only number you will have to account for when creating your budget. The additional fees are one-time expenses. So, renewing a registration for a 3,600 lb vehicle would cost **$71.85**. That's $70.65 to the state and $1.20 to the county branch office. The first-time buyer, with no previous plate and no prior registration would pay:

- $71.85 annual fee
- $28.00 for a new metal plate
- $225.00 for a new registration fee
  = $324.85 Total

The **title** is a document that shows ownership. This document proves you are the rightful owner of the car, and you will use it to transfer ownership to another person if/when you sell the car. Luckily, getting a title is a one-time expense; you don't need to budget for it every year.

- Title fee: $77.25 + .50 cents county branch fee (new vehicles, no previous title)
- Title fee: $75.25 + .50 cents county branch fee (previously titled vehicles)

Tax due is also a one-time expense. Florida law, for example, requires sales tax to be collected on the full purchase price of a motor vehicle equal to 6 percent of that purchase price.

Let's try an example calculation:

What would the tag, title, and tax expense be for the following purchase?

A 2007 Honda Accord, automatic transmission, six-cylinder automobile, weighing 2,718 lbs, is purchased in Florida by a first-time car buyer for $5,600 cash.

Tag
- $57.15 – Annual tax
- $225.00 – Initial registration fee
- $28.00 – New metal license plate
- $1.20 – County mailing and branch fee

Title
- $ 75.75 – Previously titled vehicle

Tax
- $336.00 – 6 percent sales tax

Total = $723.10

An important note about registering a vehicle: You won't be allowed to register the vehicle without **proof of insurance**.

Car Insurance: How Much? What Kind?

You won't be allowed to **register** your car without **proof of insurance.** Your lender, if you finance the purchase, will require proof of insurance, because you don't really own the car until the loan is paid off, and the lender doesn't want to get stuck with a wrecked car. In order to get that new car purchased, registered, and in your driveway, you'll need car insurance.

There are three basic types of coverage that most people are familiar with, and extra options that are good to have. Some states may require some of the extra coverage options.

Liability: In an accident that is your fault, this pays for damage to the other vehicle, and for medical claims for people in the other car. Liability coverage is required in most states.

Collision: This pays for damage to your vehicle. Any cost to repair your car after the accident will be covered under collision. Your lender requires this if you are financing your car.

***Comprehensive*:** This pays for damage to your car that happens other than in an accident. Theft, vandalism, water damage, and fire would come under comprehensive coverage.

Additional Coverage:

Personal Injury Protection pays the medical costs for the policyholder and any passengers.

Uninsured/Underinsured Motorist Coverage covers you and your car if you are involved in an accident with an uninsured/underinsured motorist.

Broken Glass provides coverage if your policy does not cover the windows under collision or comprehensive.

Guaranteed Auto Protection (GAP) Insurance will pay the difference between your car's value and what you still owe on it, should you drive off the lot, hit a wall, and destroy it. Remember, once you drive a new car off the lot, it is now a used car, and the value decreases.

Determining the coverage you need and coverage you should have will take time. There are several factors that impact how much insurance coverage will cost you.

Cost Factors that Impact Insurance Rates

Here are some of the factors that will impact the final cost of car insurance for anyone, but most notably the new/young driver:

Deductible: In an insurance claim, the deductible is the amount of money you pay first before the insurance kicks in and pays the remaining costs of the claim. The higher you set your deductible, the lower your monthly insurance payment (known as your **premium**) will be.

Age: Younger, less experienced drivers pay much higher rates.

Gender: Males, especially young males, pay higher rates than females.

Demographics: Those in urban areas or areas of high crime rates, pay higher premiums than rural, low-crime areas.

Claims: People that tend to have incidents will pay higher premiums. If you have a minor accident, consider paying for the repair yourself and not filing an insurance claim. The higher premiums may not be worth filing the claim in the long run.

Traffic Tickets: Getting a ticket for speeding, running a red light, or any other moving violation will put points on your driver's license and increase your insurance rates. Obey the law!

Vehicle Choice: Flashy, expensive cars cost a lot more to insure than cheaper cars. You may imagine yourself jetting around in a sports car, but look before you leap. Can your budget afford it?

Driving Habits: The number of annual miles you put on your car, whether you drive to and from work, and the distance between home and work (commuting mileage) will be factors when determining your insurance premium.

There are a lot of factors that will ultimately affect your car insurance premium. Different people will receive different rates even if they are getting insurance for the same car. Different people will get different rates if they are quoting different cars. People will receive different rates on the same car by checking different insurance companies. **It pays to shop around,** and compare companies and policies. Insurance cost will be an important factor when determining your monthly budget, so be careful, and choose wisely.

Budgeting for Car Insurance

The actual cost of your car insurance depends on many factors: what kind of car you buy, how old you are, your gender, and your driving record. There are too many personalized factors involved to accurately estimate what your monthly car insurance bill will be. You really need to sit down with an insurance agent, and do some homework, even before you go out looking for that first car. Be sure to ask about discounts, because they may be offered for students with good grades, and to youthful drivers that take a safe driving course.

Insurance policies are quoted in annual rates, but typically renew every six months. This allows the insurance company to make any necessary adjustments if factors have changed, you had an accident, accumulated several moving violations (these adjustments would cause your rate to increase), or maybe you had a birthday (this would cause your rate to decrease). You may have several choices when paying your premium: in full at renewal, quarterly, or even monthly. Service charges or interest may be added if you don't pay the entire premium in one lump sum. However you choose to pay your premiums, monthly budgeting for them is a must. Renewal will happen in six months, so you must have that money available to keep your insurance in effect, or the car will sit.

Although we can't accurately predict what your costs will be, one thing is certain: **Your insurance costs will be a significant part of your monthly budget.** This cost must be taken into account before you decide if you can afford the car you want.

For purposes of this lesson, we've developed a formula to come up with an estimate for the amount car insurance will cost based on a few parameters. This will allow us to "put a number" on insurance costs so we can go about budgeting for it. This formula should only be considered valid for purposes of this lesson; your actual costs might be quite different.

Car Insurance Estimate Formula

For purposes of estimating the cost of car insurance (for this lesson only) we will use a multi-step formula. The formula takes into account:

- The value of the car
- The age of the car
- The age of the driver
- The gender of the driver

The actual formula used by insurance companies takes many more factors into account, but for our purposes, this formula will allow you to produce an estimate. Remember, speak to several insurance companies when you are seriously shopping, and shop around!

Step 1 of 4
To begin, we will calculate a **base cost**. The base cost will be 20 percent of the purchase price of the car.

Purchase Price	Base Cost of Insurance (20 percent)
$8,400	$1,680
$12,000	$2,400
$10,250	?
$9,500	?

Step 2 of 4
We'll subtract 2 percent of the base cost for every year of the car's age.

Year of Car	Subtract from Base Price
2011	0 percent
2010	2 percent
2009	4 percent
2008	6 percent
2007	8 percent
2006	10 percent

Example:

If the base cost is $2,400, adjust this base cost as follows:

Year of Car	Subtract from Base Cost	New Value
2011	0 percent = $0.00	$2,400 – 0.00 = $2,400
2010	2 percent = $48.00	$2,400 – 48 = $2,352
2009	4 percent = $96.00	$2,400 – 96 = $2,304
2008	6 percent = $144.00	$2,400 – 144 = $2,256
2007	8 percent = $192.00	$2,400 – 192 = $2,208
2006	10 percent = $240.00	$2,400 – 240 = $2,160

Step 3 of 4
Then, we'll increase the value we get by a percentage based on the age of the driver according to this table:

Driver's Age	Increase Value By:
21	1 percent
20	1.5 percent
19	2 percent
18	2.5 percent
17	3 percent
16	3.5 percent

Step 4 of 4
Finally, a 4 percent surcharge will be added to the cost if the driver is male**.**

The complete four-step process is illustrated in the following example:

Use the formula to estimate the insurance cost for a 2008 Acura that costs $6,000. The insured person is an 18-year-old male driver.

Base cost = 20 percent of $6,000 = $1,200

Subtract 6 percent of the base cost since the car is a 2008 model (three years old):
- 6 percent of $1,200 = $72.00
- $1,200 - $72.00 = $1,128

18-year-old driver increases the premium by 2.5 percent (from age table above):
- 2.5 percent of $1,128 = $28.20
- $1,128 + $28.20 = $1,156.20

4 percent surcharge added to male drivers:
- 4 percent of $1,156.20 = $46.25
- $1,156.20 + $46.25 = $1,202.45

Estimated annual insurance premium: **$1,202.45**

Estimated six-month renewal premium: **$601.23**

Monthly budget: **$100.20**

Now, you try:

Use the formula to estimate the insurance cost for a 2006 Toyota that costs $7,800. The insured person is a 17-year-old female driver.

Did you get $1,446.12 as the estimated annual insurance premium?

Repairs and Maintenance

Oil Change

The most important maintenance you can do to keep your ride running smoothly is to keep up with oil changes. This should be done every 3,000 miles to keep your engine free of deposits, and help your engine last longer. An oil change is usually a good time for a tire rotation. Have your tires rotated and brakes inspected with every oil change. Rotating the tires will help them last longer by varying any wear pattern that might develop from leaving the same tire on the same wheel for too long.

A typical oil change can cost $25.00 or more. Since the average driver drives 12,000 – 15,000 miles each year, you should expect four to five oil changes per year. Budget $125.00 each year for oil changes.

Brakes

I won't insult your intelligence by telling you how important the brakes are to your health, safety, and well-being.

There are two sets of brakes on your car: front and rear brakes. Each time you apply the brakes, the brake pads squeeze against the rotor to cause friction and slow the car to a halt. The need for brake pad replacement is a function of usage, not mileage. The more you use the brakes, the more they wear down.

Consider this: Two drivers each put 3,000 miles on their cars. One driver does it on a round-trip drive from Florida to Virginia mostly on highways. The other driver puts on the 3,000 miles by using his car to deliver papers on his paper route. Which driver will need brakes sooner? Ignoring worn brake pads will cause metal on metal friction and wear out the brake drums. This repair will be more costly, so have your brake pads inspected with each oil change, and replace them when necessary.

The average cost to replace worn brake pads is $100.00 for each end. The average cost to resurface rotors and drums is $150.00 for each end. You will also need new brake pads if you get the rotors and drums repaired, so count on an average cost of $250.00 per end for this repair. With average usage and a mix of highway and city driving, brake pads should be replaced about every 30,000 miles.

Other Common Maintenance

Tire alignment is maintenance to ensure your tires are running straight. Misaligned tires will wear unevenly and reduce the life of your tires. You should have your tires aligned if you notice your car drifting as you drive. There is no prescribed mileage for getting tires aligned. Even new tires can get out of alignment by hitting a curb or driving on rough roads with potholes. The average cost for this maintenance is $80.00.

A tune up is done when your engine seems to be running "rough," you notice a lack of power, or whenever the engine doesn't seem right. Not really a function of mileage, engines can begin to run rough if they are using old gasoline or gasoline with condensation. Water in the fuel line will make the engine sputter. Old gasoline can cause deposits to build up on the spark plugs, rob your car of performance, make the engine run rough, and decrease your gas mileage. Some engines are more time consuming to work on, especially some of the newer models. Expect a bill for $80.00 plus one to four hours of labor. At $50/hour for labor, expect this maintenance to cost you $130.00 – $280.00.

We all hope that unexpected repairs are not necessary, but they really do happen. And, they always seem to happen when we least expect them. Common unexpected repairs include: flat tire,

squeaky belt, oil leak, power steering fluid leak, and broken water pump. While we can never predict when these unexpected repairs might happen, we can expect that usually something will go wrong during the year, so it's the smart car owner that budgets something each month for unexpected repairs. Ignoring this budget item could mean getting stuck with an unexpected bill you are not prepared to pay.

Tires – When the Rubber Meets the Road

Having worn, cracked, under inflated tires can mean a serious loss of control, especially on slick, wet, or snowy roads.

Keeping your tires properly inflated will prolong their useful life, cut down on unnecessary wear and tear, and improve your gas mileage.

Some tire brands are known for performance, not longevity. Others are known for longevity, but give up some of the performance. Selecting tires for your car will be a personal preference and a budget decision.

Before we present average price estimate expectations, a few exceptions should be noted. First, tires for luxury vehicles won't be quoted here. BMW, Mercedes, Jaguar, etc., typically have different size tires on the front and rear of the car, so purchasing tires for the car becomes a bit more complicated. At $300.00 per tire, we felt first-time car buyers would find out about these special requirements soon enough, should they leap into a luxury vehicle. Rolls Royce tops out at $1,500 per tire!

Another feature for a luxury model car is called "run flat," which allows the tire to maintain enough inflation to run for a short period of time even after the tire has gone flat. These tires were quoted at around $500.00 each, so we chose not to include them here.

Body Style	Examples	Avg. Cost per Tire	Avg. Expected Mileage
Economy/Sub Compact	Toyota Corolla Honda Civic Mazda 323	$100.00	25,000
Midsize	Toyota Camry Ford Fusion Ford Taurus	$150.00 – $200.00	25,000
Full Size	Cadillac Crown Victoria	$150.00 – $200.00	25,000
Truck/SUV	Ford F150 Jeep SUV's	$200.00	25,000

Tires are rated for expected mileage, such as 40,000 and 60,000 miles. However, actual mileage will vary depending on driving habits of the driver. More highway mileage will bring more mileage on the tires than stop-and-go traffic in town. Notice, the average life of most tires is about 25,000 miles. Rotating your tires each time you change the oil will help them last longer and give you more mileage before they need to be replaced.

Gas Mileage – Pain at the Pump
The price of gasoline has soared in recent years. This price increase has had a profound impact on our national economy and on the global economy as a whole. So, it should come as no surprise it has had a significant impact on the average person's monthly budget, and it will absolutely have an impact on yours.

Gas mileage is a hot topic when it comes to choosing a car. Many people are selecting smaller cars with smaller engines to reduce the monthly gasoline costs by getting more miles per gallon from their vehicles. Gas consumption of smaller engines, four-cylinder engines, is less than eight-cylinder "gas guzzlers." Of course, a smaller engine means less power, and some people opt for the larger, eight-cylinder engines because they prefer the power.

Automobile manufacturers test, predict, and print the estimated gas mileage right on the showroom sticker of the car. Of course, the fine print always has the disclaimer: "Actual mileage may vary." And, it absolutely will. You see, gas mileage estimates are based on "ideal conditions," which means you can expect this mileage when driving:

- On flat, dry roads
- With no wind
- On highways at a constant speed
- With a perfectly tuned engine
- With perfectly inflated tires

It should come as no surprise that since you will rarely be driving under "ideal conditions," that your actual mileage will most likely be less than advertised.

Stop-and-go city driving, waiting at red lights, and constant accelerating and decelerating will have an impact on your gas mileage. So, we came up with a more realistic range of gas mileage you can expect based on your vehicle. These estimates are just that, and *your mileage may vary.*

Four-Cylinder	Six-Cylinder	Eight-Cylinder
21 – 28 mpg	14 – 20 mpg	9 – 13 mpg

You must pay attention to your gas consumption and budget for it if you are going to own a car. For our purposes, we'll fix the cost of a gallon of gasoline at $3.50. The actual price fluctuates, of course, sometimes changing multiple times during a single day. For budgeting purposes, $3.50/gallon is not an unreasonable estimate.

Budgeting your gasoline costs is relatively easy mathematics. Adjusting your driving habits to optimize your mileage and control your costs is a bit more problematic.

For example, your car has a 15-gallon capacity and right now it is bone dry. That means it will cost **15 x $3.50 = $52.50** to fill your tank.

How long will that tank of gas last you? If you are driving a four-cylinder car that gets an average of 25 mpg, then you should get 375 miles of driving from that tank of gas. A six-cylinder car that gets 15 mpg will get you 225 miles, and an eight-cylinder gas-guzzler, getting a paltry 10 mpg gets you 150 miles.

Now, what are your driving habits?

The average driver puts 12,000 – 15,000 miles on a car each year. That's 1,000 – 1,250 miles on average per month.

If you drive 1,000 miles each month and get 10 mpg, then you'll burn through 100 gallons of gas per month x $3.50/gallon = $350.00/month.

If you drive 1,000 miles each month, and get 15 mpg, then you'll burn through 67 gallons of gas per month x $3.50/gallon = $234.50/month.

If you drive 1,000 miles each month, and get 25 mpg, then you'll burn through 40 gallons of gas per month x $3.50/gallon = $140.00/month.

Cars and gas cost money. The type of car you choose and when/how you drive it will have a direct impact on your wallet each and every month.

Can I afford to get a car? Can I afford to keep the car?
There's a lot that goes into buying a car, and keeping it running well. Before you decide, ask yourself these questions:

- What can I afford to buy?
- What can I afford to keep?
- Will I save for the entire purchase price or finance?
- What will my initial costs be?
- Will my budget have room for a car payment?
- How much will insurance be? Will I pay for it monthly?
- What should I budget for repairs and maintenance?
- What can I expect my monthly gas bill to be?

If you're honest and realistic, the answer to "can I afford a car" will be clear.

Sample Car Purchase/Budget Analysis
Michael is a 17-year-old male student with a part-time job earning $10.00/hour. He typically puts in about 26 hours/week grossing him $260.00/week or $1,040.00/month. He has been saving to one day purchase his first car. To date, Michael has saved $4,500.00 toward that goal, and he has started looking. Michael is a sensible, responsible young man, and realizes he needs to be prudent with his choice of first car. He is looking for something economical, dependable, and maybe a bit flashy.

After looking around for a while, Michael has found a private deal on a 2008 Toyota Corolla CE four-door sedan that is a sharp silver color. It has an automatic transmission, four cylinders, air conditioning, power windows, mirrors and locks, cruise control, and a CD player! He has looked at it twice. It appears to be in excellent condition, has 33,000 miles, weighs 2,530 lbs, and gets 25 mpg city according to the current owner. Michael researches the car, and finds the ***Kelley Blue Book*** *value on this car to be $12,616. He thinks he has found a good deal, because he has negotiated a price of $9,500 with the owner.*

Can Michael afford this car?

Analysis
Because the purchase price is $5,000 more than Michael has saved, he'll have to finance the purchase. A visit to his local credit union reveals he has good, although limited, credit built so far. He's told because of his age he'll need a cosigner, but his mom knows what a responsible, hardworking young man he is, and is willing to cosign. The vehicle is a 2008, so he qualifies for up to five years (60 months) of financing, and his credit is good enough to get him an interest rate

of 8.1 percent. He'll need 20 percent as a down payment ($1,900), which he has saved, and his monthly payment cannot exceed 40 percent of his gross monthly income. His part-time job (26 hours/week) at $10/hour grosses him $260.00/wk or $1,040/month, so his limit for a car payment is $416.00/month.

Michael calculates his monthly car payment:

P = $7,600
I = 8.1 percent
N = 60 months

$$MonthlyPayment = \frac{(P \times (I \div 12))}{(1-(1+(I \div 12))^{-N})} = \frac{(7600 \times (.081 \div 12))}{(1-(1+(.081 \div 12))^{-60})}$$

$$= \frac{(7600 \times .00675)}{(1-(1+.00675)^{-60}}$$

$$= \frac{(51.3)}{((1-(1.00675)^{-60}}$$

$$= \frac{(51.3)}{(1-.667885)}$$

$$= \frac{(51.3)}{0.332115} = \$154.46$$

Michael's monthly car payment will be $154.46, well below the 40 percent of gross wages ($416.00/month). It appears Michael can finance this car. His monthly car budget is currently $154.46.

Michael calculates his registration costs:

The car weighs 2,530 lbs. His annual registration fee will be:	$57.15
A first-time buyer with no prior registration, Michael will pay:	$225.00
An initial registration fee and his brand new plate will cost:	$28.00
Totaling:	$310.15
This is a used car, so his title will cost:	$75.75
Sales tax of 6 percent of $9,500 will be:	$570.00
Total registration costs:	$955.90

The $57.15 annual registration fee will occur every year, so Michael adds that to his budget: $57.15/12 months = $4.76/month. His monthly car budget now stands at: $159.22.

The $955.90 cost will be added to his $1,900 down payment, so Michael has now spent $2,855.90 of the $4,500.00 he has saved.

Michael calculates his insurance cost:

- 20 percent of $9,500 = $1,900
- The car is 3 years old, so subtract 6 percent of this amount: $1,900 - $114 = $1,786.00.
- Michael is 17 years old, so add 3 percent of this amount: $1,786 + $53.58 = $1,839.58.

- Add 4 percent to this amount because Michael is male: $1,839.58 + $73.58 = $1,913.16/year

The insurance premium will be $956.58 every six months. Michael will pay an entire six months premium up front. He has now used $3,812.48 of the $4,500.00 he has saved. He adds $159.43/month to his budget to cover the insurance renewal in six months. His monthly budget stands at $318.65.

Maintenance and Repairs Budget:

Michael has used $3,812.48 of the $4,500.00 he has saved, leaving him $687.52. First order of business is to get the oil changed. Because the car already has 33,000 miles on it, the brakes could use a good inspection. $200.00 would cover front and rear brake pads, and would give him almost three years before he would need to budget the money for another set. The same holds true for tires. A set of four brand new tires would cost $400.00, but then he'd have about two years to budget for another set.

So, he decides to spend $25.00 on an oil change, $200.00 on brakes, and $400.00 on tires right up front to be sure his new ride is in tip-top condition. That's $625.00 out of the $687.52 he has left, leaving him $62.52.

Michael adjusts his monthly budget:

- Four oil changes during the year: $25.00 x 4 = $100.00/12 = $8.33/month
- $200.00 for brakes 36 months from now = $200/36 = $5.56/month
- $400.00 for tires 24 months from now = $400.00/24 = $16.67/month

This will add an additional $30.56/month to his monthly budget, bringing it to: $349.21.

Finally, Michael estimates his fuel costs:

An average driver puts 12,000 – 15,000 miles on his car each year. Michael believes he will drive more than average, but on the low end of that range. He estimates 13,000 miles/year. That computes to 1,083 miles/month. If his Corolla gets the 25 mpg that the current owner claims, he can expect: 1,083/25 = 44 gallons/month x $3.50/gallon = $154.00/month for fuel.

Michael's total monthly car budget is: $503.21

Well, can Michael afford this car?

Acquisition Costs		**Monthly Costs**	
Down payment	$1,900	Car payment	$154.46
Registration	$955.90	Annual registration renewal	$57.15/12 = $4.76
First six months of insurance	$956.58	Insurance renewal	$159.43
Oil change, brakes, tires	$625.00	Oil changes	$8.33
		Brakes (36 months)	$5.56
		Tires (24 months)	$16.67
		Fuel	$154.00
Total Acquisition	**$4,437.48**	**Monthly Budget**	**$503.21**

Michael has saved for this day. He has $4,500 saved to cover the $4,437.48 it will take to buy the car and make it road-ready. His gross monthly salary is $1,040 of which $503.21 will be budgeted for his car. That is: $503.21/$1,040 = .5098 = 51 percent.

Michael has been working and saving to own this car and he will need 51 percent of his income to keep it. So, YES, Michael can afford this car.

Now you try:
Rebecca is an 18-year-old female high school student set to graduate soon. She is preparing to go to college next fall, and purchasing her first car is one of the first steps toward some really big, exciting changes that she will be experiencing.

She held a part-time job working at the supermarket for several years now, has built her wages to $12.00/hour, and typically puts in about 30 hours/week grossing her $360.00/week or $1,440/month. She has shown good judgment in the past, so her credit is good enough to get her a 7.74 percent interest rate for up to 72 months. However, Rebecca wants to pay off the car completely by the time she graduates college, so she will only request a four-year loan.

To date, Rebecca has saved $5,100.00 toward her car purchase, as well as saving $200.00/month for college expenses. She knows the apartment she will live in at school will cost $550.00/month, so she needs to stay within a budget.

After looking around for a while, Rebecca has found what she thinks is a good deal on a 2010 Volkswagen Passat 2.5L SE with a sunroof that is a sharp glacier blue color. It has an automatic transmission, 170 horsepower, five cylinders, air conditioning, power windows, mirrors and locks, cruise control, and a CD player! It is in "like new" condition, has 28,500 miles, weighs 3,220 lbs, and gets 22 mpg city, according to the current owner. Good mileage is important to Rebecca. She expects several trips back home during the school year, and she estimates she will put 14,000 miles/year on the car. Rebecca researches the car, finds the ***Kelley Blue Book*** *value on this car to be $25,616, and thinks she's found a good deal, because she has negotiated a price of $19,500 with the owner.*

Can Rebecca afford this car?

_____

Analysis

Acquisition Costs		**Monthly Costs**	
Down payment		Car payment	
Registration		Annual registration renewal	
First six months of insurance		Insurance renewal	
		Fuel	
Repairs/Replacements		Repairs/Replacements	
Total Acquisition		**Monthly Budget**	

Glossary of Terms

CARFAX Report: A CARFAX Report is the result of a records search about the vehicle. This report covers all insurance and law enforcement data entered about this vehicle since it was new. It is accumulated based on the Vehicle Identification Number (VIN number).

Car Payment: A monthly payment to a lender that pays back the borrowed amount, with interest, over a specific number of payments.

Cosigner: Usually a parent or other responsible adult that agrees to assume responsibility for a debt if the borrower defaults on the debt.

Credit History: The accumulated record of credit that an individual has built over time.

Deductible: The amount of an insurance claim that the insured person must pay before the insurance company takes over and pays the remaining costs.

DMV: Stands for Department of Motor Vehicles. A government agency that regulates driver's licenses and automobile registration.

Down Payment: An initial amount, usually a percentage of a cost, that is paid by a borrower to create equity in a purchase.

Equity Position: The amount of ownership, expressed as a percentage, which a borrower holds in a financed item.

Gross Monthly Income: The total amount of one's income each month before any deductions are removed.

Kelley Blue Book: The most well-known vehicle valuation resource available to consumers. It is a car valuation publication meant to assist consumers and sellers with putting a cash value on automobiles.

MPG: Stands for Miles Per Gallon, a measurement of how far a vehicle travels on one gallon of gasoline.

Premium: This is the cost of insurance. The periodic payment on an insurance policy is called the **insurance premium.**

Principal: The initial amount borrowed on a loan.

Proof of Insurance: Proof of insurance is any type of documentation that a person can provide to another individual or government agency, only if that person currently has valid insurance.

Registration: An annual fee charged by a state to a vehicle owner for the right to drive that vehicle and to have the state's license plate.

Title: The official document of ownership that proves you are the rightful owner of the vehicle.

VIN Number: A vehicle's Vehicle Identification Number or original serial number.

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- First Choice Credit Union: 11957 Southern Blvd, Royal Palm Beach, FL 33411
- Royal Palm Toyota: 9205 Southern Blvd, Royal Palm Beach, FL 33411
- www.carbuyingtips.com/first-time-buyer.htm
- www.edmunds.com/car-buying/true-cost-to-own-tco.html
- www.investopedia.com/articles/pf/08/cost-car-ownership.asp
- Department of Highway Safety and Motor Vehicles:
  State of Florida
  2900 Apalachee Parkway
  Neil Kirkman Building
  Tallahassee FL 32399-0620