

What's going on with gas prices?

Volatility gripped nearly every trading floor in 2022, but one of the most important price swings took place not in a trading pit but at the pump. Gasoline prices fell off dramatically during the COVID-19 pandemic before surging even more dramatically as supply and demand reset against a backdrop of global unrest.

Prices fell, then rallied. And while there's always been myriad factors at play in the price of fuel, the picture has gotten even more complex in recent years as the world considers how to introduce green energy to the grid. Here's a look at how it all fits together.

Gasoline price breakdown

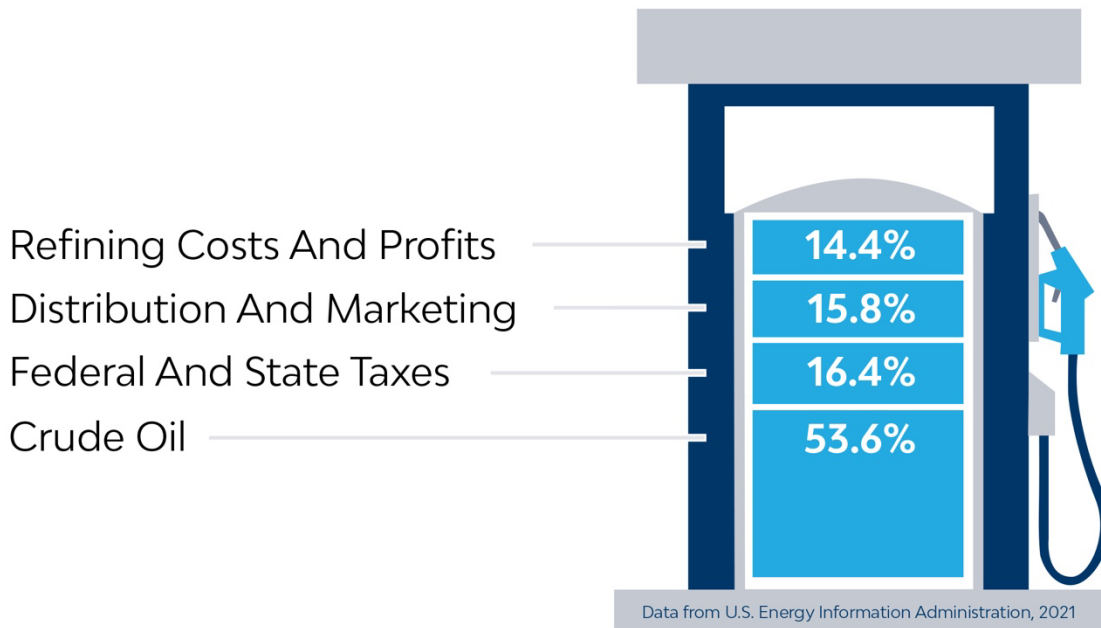
The exact breakdown of a gallon of gasoline varies by location and circumstance. But overall, when you pay for a gallon of gasoline, 53.6% of what you pay covers the cost of the crude oil used to make it. The rest of the cost covers refining (14.4%) and distribution and marketing (15.8%) with the final chunk going to various governments as tax (16.4%).

Once you understand this breakdown, you can start to see how different factors might affect what you pay at the pump. For instance, geopolitical events—like the Russian invasion of Ukraine—tend to drive up the price of crude oil. (Russia is a top oil producer and Ukraine has some of the largest natural gas reserves in Europe.)

Because oil is traded globally, it doesn't matter that the United States is a net exporter of crude oil, prices still fluctuate based on global factors. (Most of the oil the U.S. imports is from Canada, not OPEC.)

You may have noticed, however, that gasoline prices don't always move in lockstep with oil prices. We sometimes see fuel prices increase even as crude prices fall. That's generally due to refineries, which are particularly relevant in the wake of COVID-19.

WHAT AFFECTS THE PRICE OF GASOLINE?



Each refinery is unique: Where it sources crude, output, capacity, and so on. During the pandemic, [a handful of refineries shut down](#) and there was little incentive to reopen with Americans staying home and driving less.

Plus, the energy landscape is changing. There's a push to create a cleaner energy grid. Electric cars are gaining market share. And oil companies—who must decide whether to invest in refineries—can see those changes happening. It's likely refinery costs will remain a key factor in fuel production, inventory, and gasoline prices going forward.

The California question

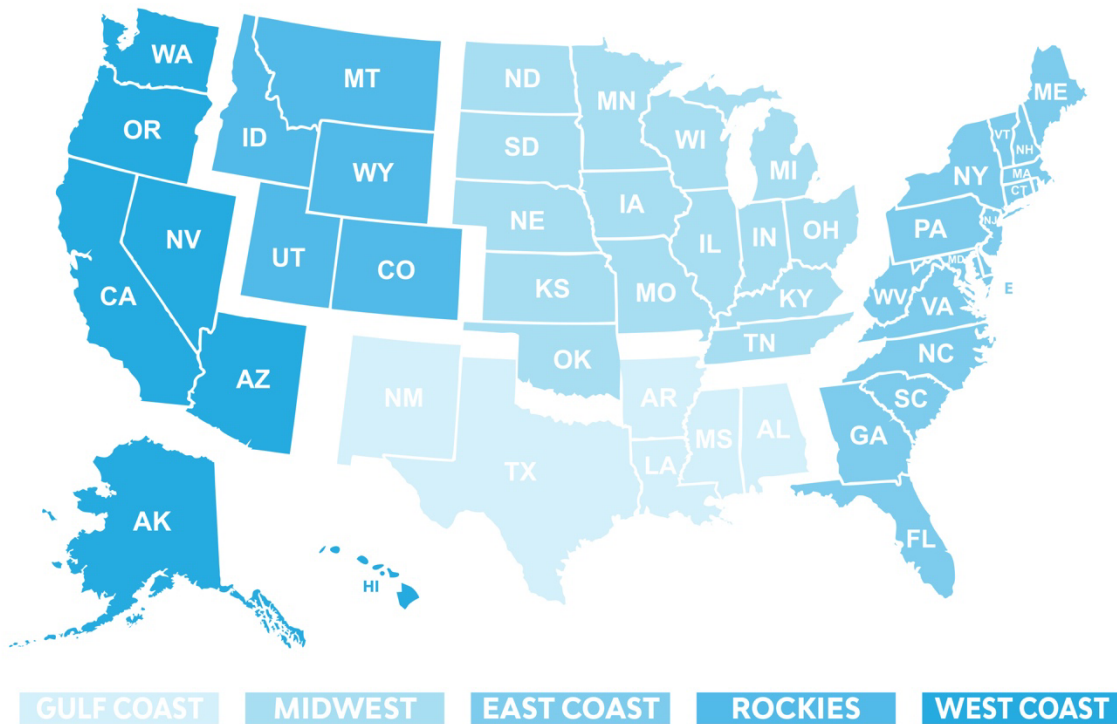
The price of gas varies significantly by location. Not surprisingly, these prices are tied to both crude oil and refineries.

The gulf states tend to have the lowest gas prices—Texas and the Gulf of Mexico remain the heart of U.S. oil. The region produces “sweet crude” a nickname given to oil with low sulfur content that requires less refining. Plus, Texas and Louisiana have the most refineries of any two states—gulf oil doesn't travel far from rig to pump.

Prices in hard-to-reach areas, like the Rocky Mountains, reflect that. Plus, a significant amount of the oil refined in the Rockies and the Midwest come from Canada's oil sands. If West Texas Intermediate epitomizes sweet crude, Canadian oil is decidedly sour. Crude oil drilled from Canadian oil fields has a high concentration of sulfur (plus water and clay). In industry speak: It's sour crude. And it requires more refining. And while the Midwest and Rocky Mountain regions have worked to improve their refinery output, refinery costs may still have a bigger impact than in other regions... with the exception of California.

WHERE IS GAS MOST EXPENSIVE?

The government evaluates gas prices by region. Here's how those regions stack up from least expensive (lightest blue) to most expensive (darkest blue).



Data from U.S. Energy Information Administration, 2021

California tends to be a poster child for high energy prices. People often blame taxes or government for the price jump, but Pennsylvania actually has higher taxes. (California comes in second.)

Instead, California prices tend to hinge on regulations (quality control) and supply. The state has stricter environmental requirements than the federal government, meaning oil must go through a special refining process specific to the state. The refineries operating to California's standards are at full capacity so any glitches in production tend to cause a supply crunch and price jump.

Taxes play a role

Taxes do play a role, however. Federal and state (not to mention local) taxes total more than refinery costs, on average. But that's an average. These taxes vary significantly by location.

The total fuel tax in Pennsylvania, which has the highest taxes in the country, is roughly \$1 of every gallon of gas purchased. In contrast, Alaskans pay some 34 cents in state and federal taxes, the nation's lowest. (All numbers from 2022.)

HOW MUCH TAX ARE YOU PAYING ON A GALLON OF GAS?

State and Federal



Texas
45¢



Wyoming
49¢

Data from U.S. Energy Information Administration, 2022

Of course, gasoline isn't the only fuel cost to consider, and the price to fill up your car isn't the only area where fuel prices matter. Energy costs affect heating bills, the costs of goods and services (transportation factors into supply chain) and more.

Understanding the different factors that push prices higher or lower can help you cut through the noise and make the best spending decision for you and your family.

Source: Multiple articles and data sets from the U.S. Energy Information Administration, including: [Factors affecting gasoline prices](#), [Where our oil comes from](#), [Imports and exports](#), [Fuel taxes](#); [St Louis Federal Reserve](#)