Transportation Sector

The United States is a big country. The transportation sector uses nearly 29 percent of the energy supply to move people and goods from one place to another.

▪ The Automobile

Americans love automobiles. We love to drive them. We don't want anyone telling us what kind of car to buy or how much to drive it. Forty years ago, most Americans drove big cars that used a lot of gas. The gas shortages of the 1970s didn't change Americans' driving habits much. What did change was the way automobiles were built. Automakers began making cars smaller and lighter. They built smaller and more efficient engines.

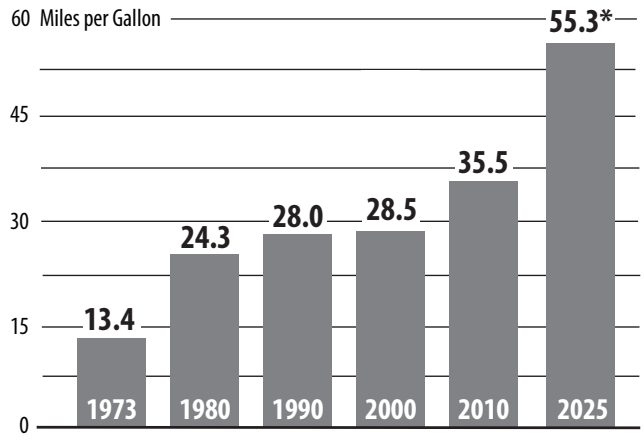
One reason for the changes was that the government passed laws requiring automobiles to get better gas mileage. With new technologies, cars now travel more miles on each gallon of gas. Today, new passenger cars get a combined average of 40 miles per gallon. If automakers hadn't made these changes, we would be using 30 percent more fuel than we do today.

In 1973, there were 125 million vehicles on the road. Today, there are more than 240 million vehicles. There are more cars being driven more miles than ever before. Over sixty percent of the passenger vehicles sold in 2017 were sport utility vehicles and light trucks. With the recent fluctuations in fuel prices, however, demand for these big vehicles has dropped somewhat, while demand for hybrids and other fuel efficient vehicles has increased.

▪ Commercial Transportation

Passenger cars and light trucks consume about two-thirds of the fuel we use for transportation. Commercial vehicles consume the rest. These vehicles—trains, trucks, buses, and planes—carry people and products all across this vast country. Commercial vehicles have also become more fuel efficient in the last 40 years.

Average Fuel Economy of New Passenger Cars



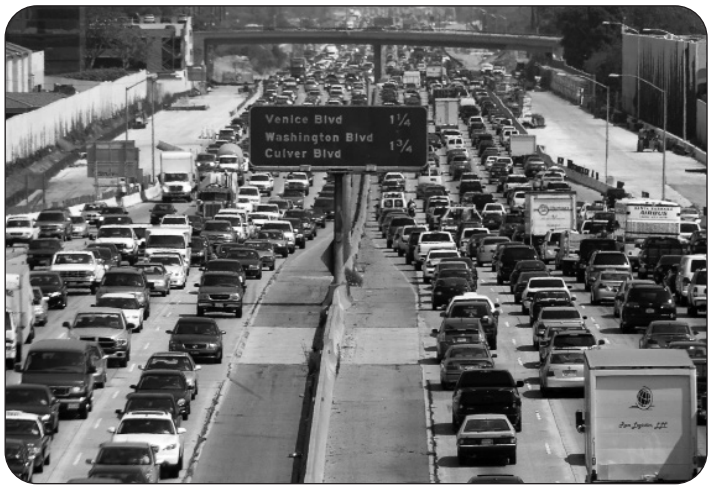
*By 2025, new CAFE standards will require cars and light trucks to meet a 55.3 mpg fuel economy standard.

Data: U.S. Department of Energy

- **Trucks** use more fuel than any other commercial vehicle. Almost all products are, at some point, transported by truck. Trucks are big and don't get good gas mileage. They usually have diesel engines and can travel farther on a gallon of diesel fuel than they could on a gallon of gasoline.
- **Trains** carry most of the freight between cities. In the last 30 years, trains have improved their fuel efficiency by 55 percent. Trains are lighter and stronger and new locomotives are more efficient.
- **Airplanes** move people and products all over the country. In 2017, a record setting 960 million passengers flew on planes in the U.S. Airlines are twice as efficient today as they were 30 years ago. Fuel is one of the biggest operating costs for airlines. Making planes more energy efficient is very important to airlines.
- **Mass Transit** is public transportation for moving people on buses, trains, light rail, and subways. In 1970, nine percent of workers who commuted to work used public transit systems. Today, only five percent travel by mass transit. Why is this? One reason is that Americans love their cars. Another is that people have moved from cities to suburbs and many businesses have followed. Most mass transit systems were designed to move people around cities or from suburbs to cities. Very few systems move people from suburb to suburb.

  Most people worry about air pollution from auto exhaust. They also worry about traffic congestion. Congress has passed legislation supporting public transit. If public transit is convenient and the cost is reasonable, people may leave their cars at home.

TRAFFIC CONGESTION



Transportation

Americans make up less than five percent of the world's population, yet own about 15% of its automobiles. The transportation sector of the U.S. economy accounts for 28.8 percent of total energy. consumption. America is a country on the move.

The average price of gasoline in 2017 was $2.35 per gallon with the current average at $2.45. If the average vehicle is driven 11,300 miles each year, and gets an average of 29.2 **miles per gallon (mpg)**, the average driver spends over $900 per year on gasoline. A person driving a smaller, more fuel-efficient car will have spent as little as $800 per year, while a person driving a larger vehicle that is less efficient could spend $4,000 or more each year on fuel.

The average fuel economy of new cars and light trucks increased significantly from the mid-1970s through the mid-1980s. Unfortunately, it declined from a high of about 26 miles per gallon (mpg) in 1987 to 24.5 mpg in the late 1990s due to larger vehicles, more horsepower, and increased sales of sport utility vehicles (SUVs) and trucks. In 2017, new car fuel economy rose to meet 40 mpg, due to demand for hybrid and fuel efficient vehicles.

When buying a vehicle, you can save a lot by choosing a fuel-efficient model. All new cars must display a mileage performance label, or Fuel Economy Label, that lists the estimated miles per gallon for both city and highway driving. Compare the fuel economy of the vehicles you are considering and make it a priority. Over the life of the vehicle, you can save thousands of dollars and reduce emissions significantly.

Fuel Economy Label

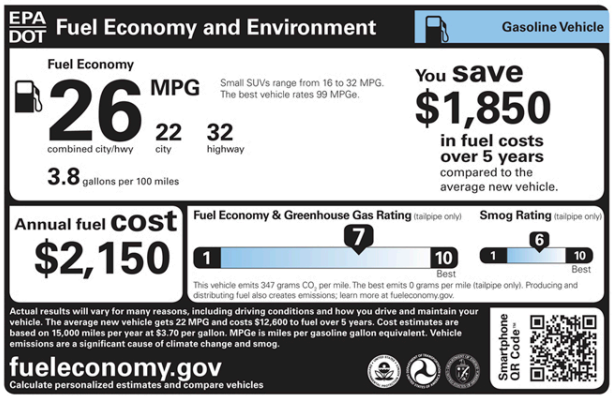


Image of label courtesy of www.fueleconomy.gov

HYBRID PASSENGER VEHICLE

Image courtesy of NREL