

Z E T A

ELECTRIC VEHICLES

**ARE FAR CHEAPER TO DRIVE
THAN GAS-POWERED CARS.**

JULY 2022

By passing clean energy tax incentives, Congress can ensure that the United States wins the clean transportation race, saving Americans money and creating millions of jobs.

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■ Overview

This analysis compares the operating costs of gas-powered vehicles and electric vehicles (EVs) nationally and in various states. The three gas-powered cars featured in the analysis represent the most popular vehicles in the pickup truck, SUV, and sedan vehicle segments in the United States. The EVs included in this analysis are approximate analogues to the highlighted gas-powered vehicles. While they are imperfect corollaries to the gas-powered vehicles, these electric models nevertheless illustrate the substantial cost savings.

■ Key Takeaways on The Cost to Drive an EV vs. a Gas-Powered Vehicle

Gas prices are inherently volatile—and they always will be. EVs, on the other hand, operate independently of global oil and gas markets, so their operating costs are not subject to fossil fuel price shocks, disruptions, and supply shortages. Instead, EVs run on electricity, which is cheaper than gasoline, is price-stable, and is domestically produced from increasingly renewable and local resources.

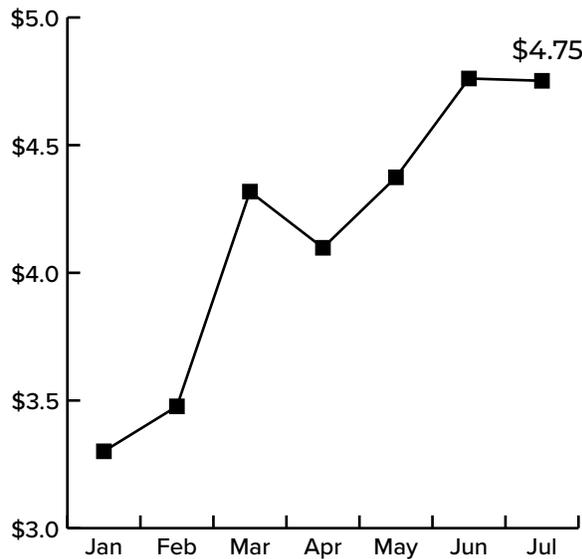
EVs are far cheaper to drive than gas-powered vehicles. Nationally, gas-powered vehicles are 3-5 times more expensive to drive per mile than EVs. In several states (including Arizona, Florida, Nevada, North Carolina, Ohio, Tennessee, and Virginia), EVs can be driven at just 15-20% of the cost of gas-powered cars per mile. In addition to examining this month's data, this ZETA report also looks back at the past seven months, and the data confirms that over time, EVs are markedly cheaper to drive per mile—and experience far greater price stability—than gas-powered vehicles.

The total cost of EVs is lower than that of gas-powered vehicles. In many cases, EVs are already comparable in price to similar new gas-powered models. And in addition to their fuel cost savings, EVs require less maintenance than gas-powered vehicles, too. EVs can save drivers between \$1,800 and \$2,600 on operating and maintenance costs per year, according to [Consumer Reports](#).

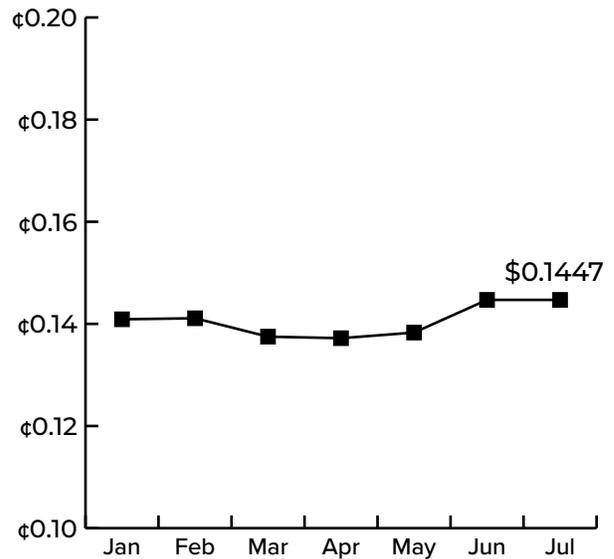
EVs will cost even less to buy if Congress passes strong EV tax credits. [The proposed EV tax credit expansion](#) in the clean energy tax plan will further reduce EV sticker prices, making it cost less to both buy and drive an EV. This will help establish American EV manufacturers compete against foreign entrants into the market, which are advantaged under the U.S.'s current EV tax credit scheme. Furthermore, EV tax credits will help signal durable market certainty, which will help American EV manufacturers scale up to meet demand. This will create millions of good-paying American jobs and help the United States win the global clean transportation race. If we don't invest now, the U.S. will concede this race to unallied foreign competitors, hurting all Americans.

Comparing The Operating Costs of Electric and Gas-Powered Vehicles Over The Past Six Months

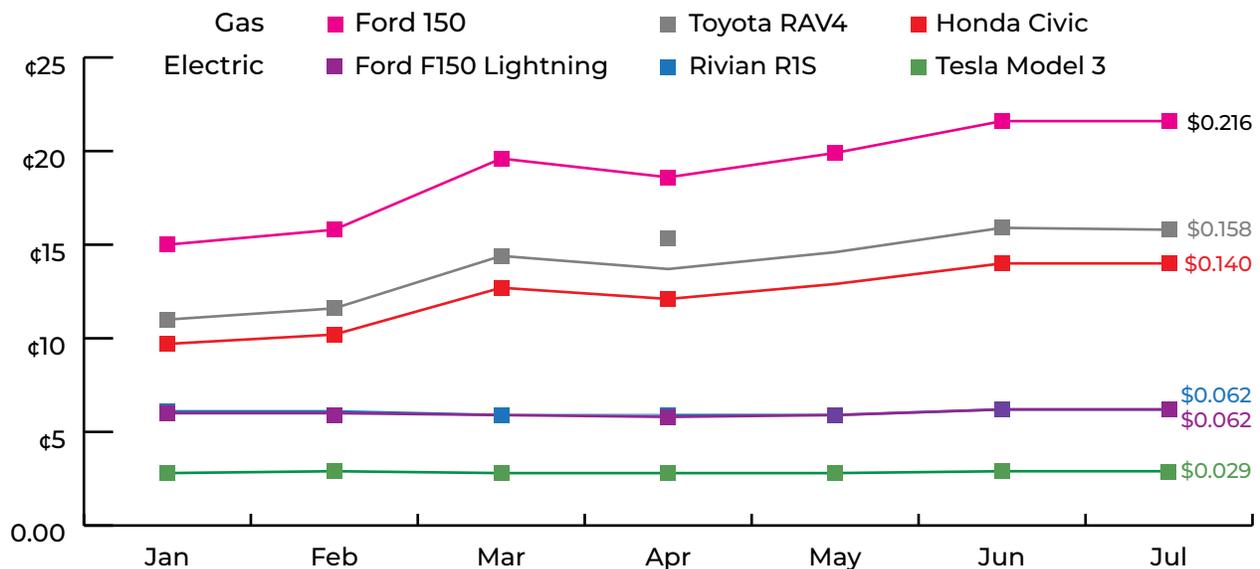
National Avg. Cost Per Gallon of Gasoline



National Avg. Cost Per Kilowatt-hour of Electricity



Cost Per Mile* To Drive electric and gas vehicles



*Gasoline prices are based on that month's data, and residential end-use sector electricity prices are backdated by three months. In both cases, these are the most recent available data. Even with inflationary pressures, the effect of electricity price changes on the operating costs of EVs has been minimal, as demonstrated in the data.

Comparing The Fueling/Charging Costs of Gas-Powered And Electric Vehicles

Avg. Energy Price per Gallon of Gasoline

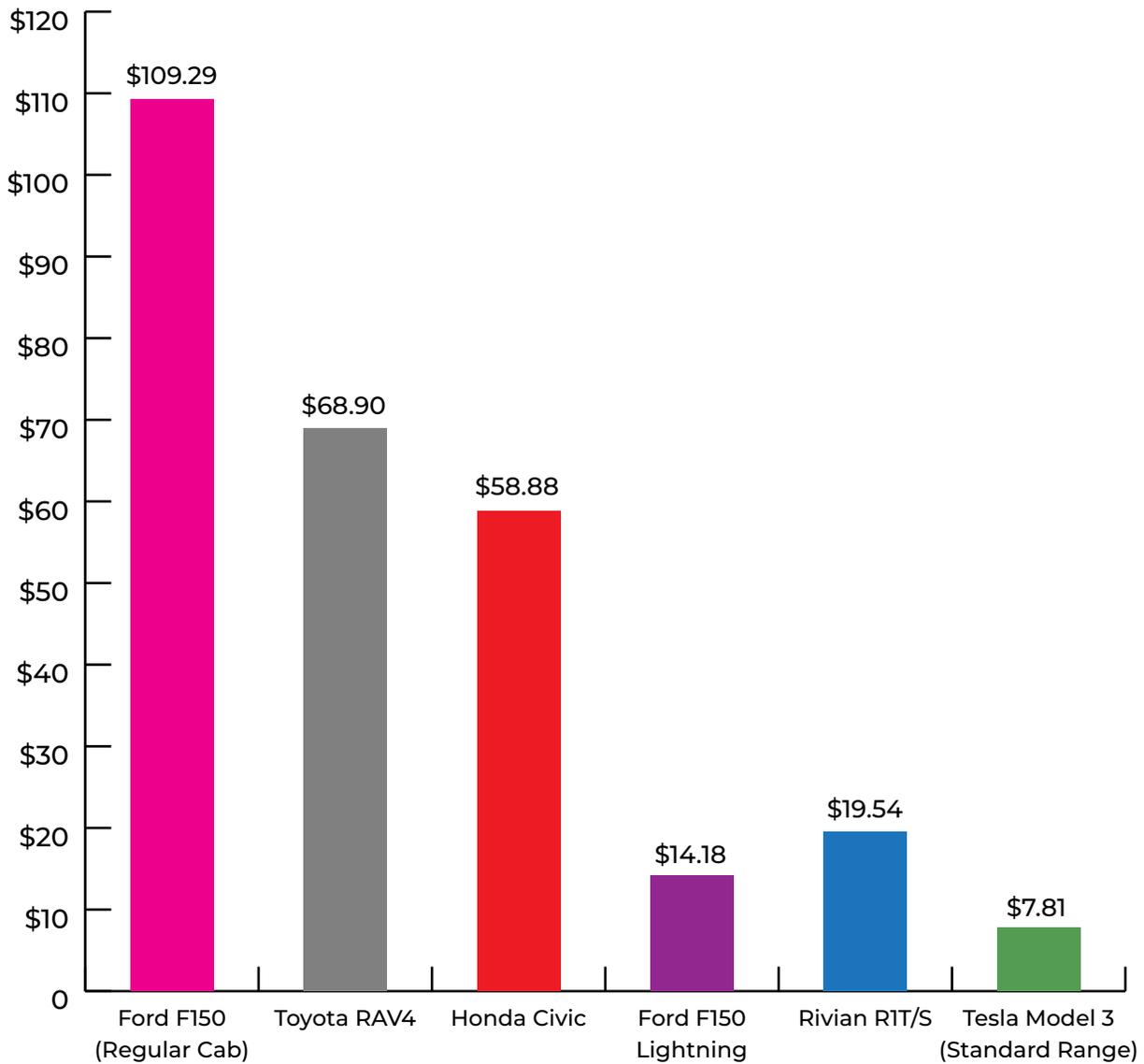
(As of July 7, 2022)

\$4.752

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1447



Total Fueling Cost

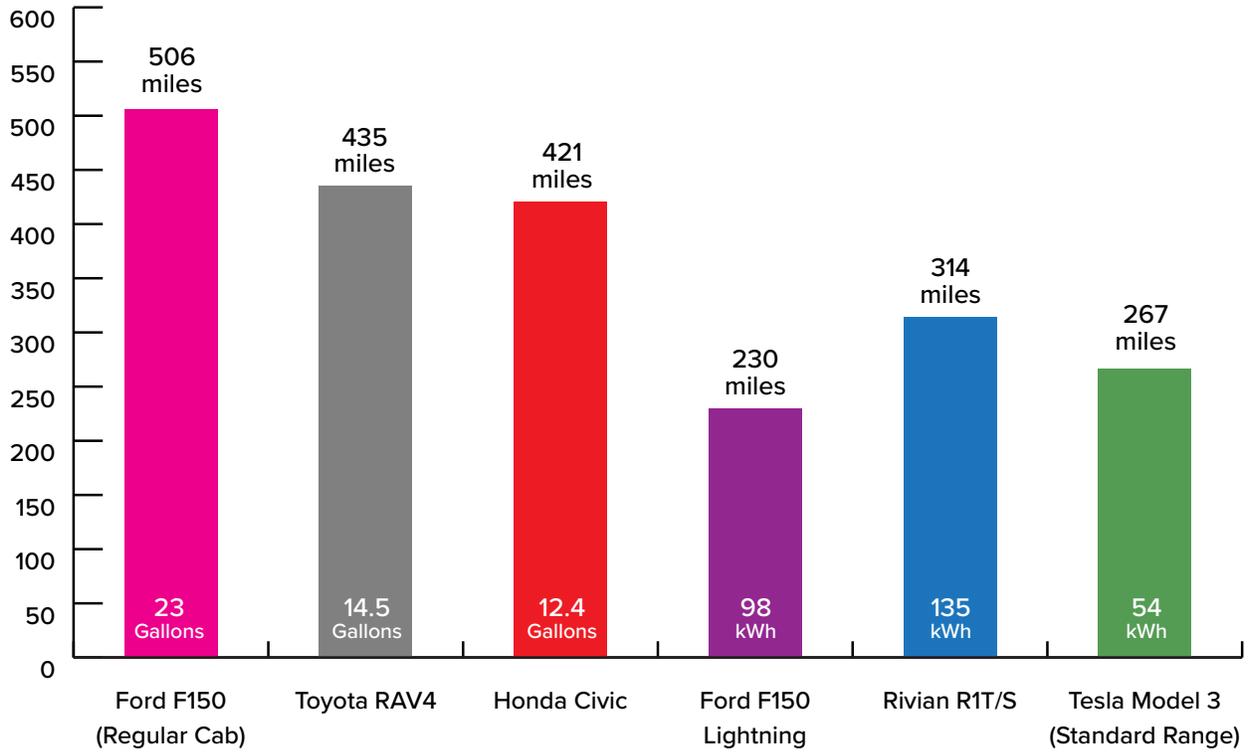
(Internal Combustion Engine Vehicles)

Total Charging Cost

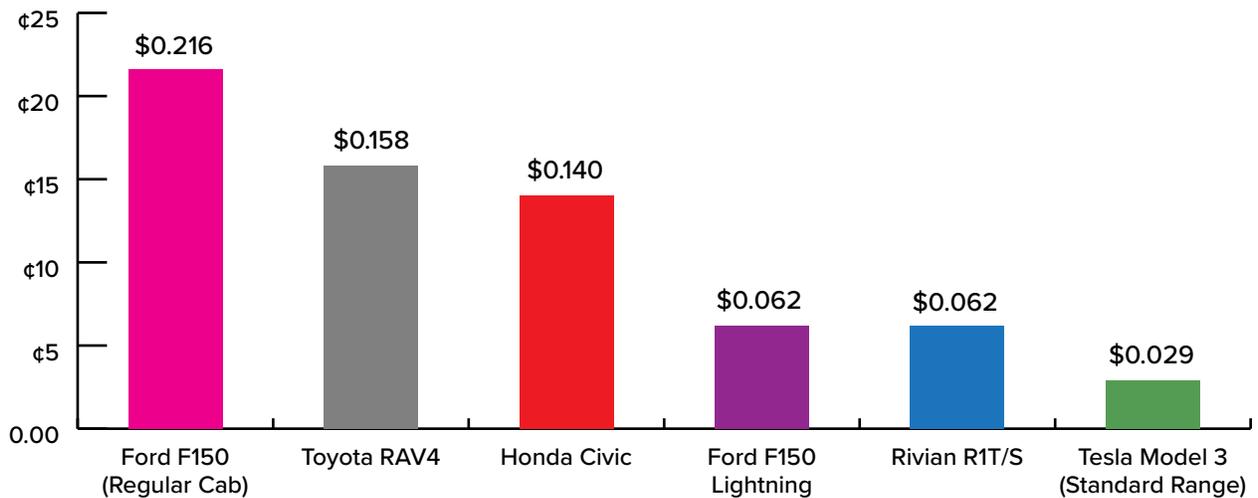
(Electric Vehicles)

Comparing The Operating Costs of Gas-Powered And Electric Vehicles

Estimated Mileage



Total Cost Per Mile



Gas-Powered Vehicles

Electric Vehicles

Arizona

Avg. Energy Price per Gallon of Gasoline

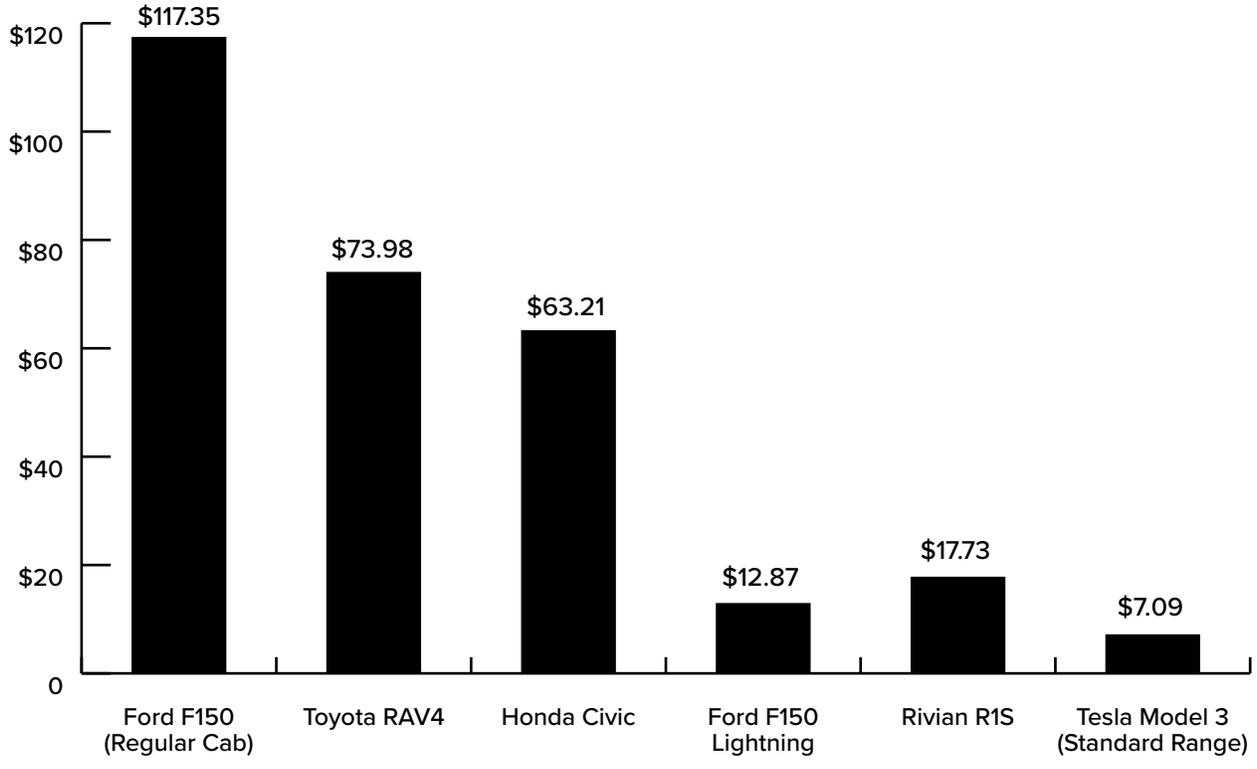
(As of July 7, 2022)

\$5.102

Avg. Energy Price per Kilowatt-hour of Electricity

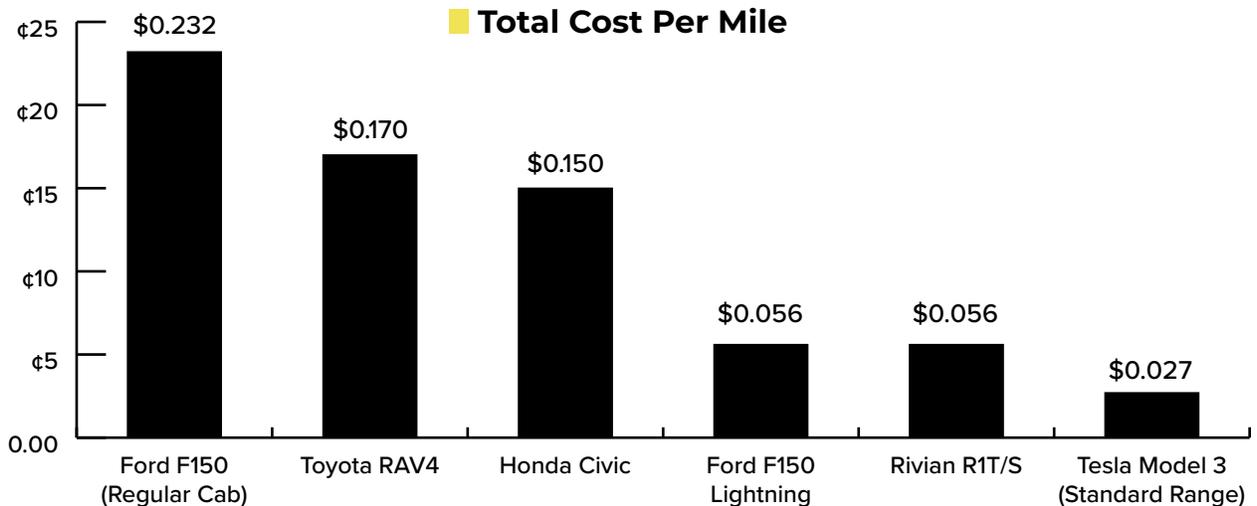
(As of April 2022)

\$0.1313



Total Fueling Cost

Total Charging Cost



California

Avg. Energy Price per Gallon of Gasoline

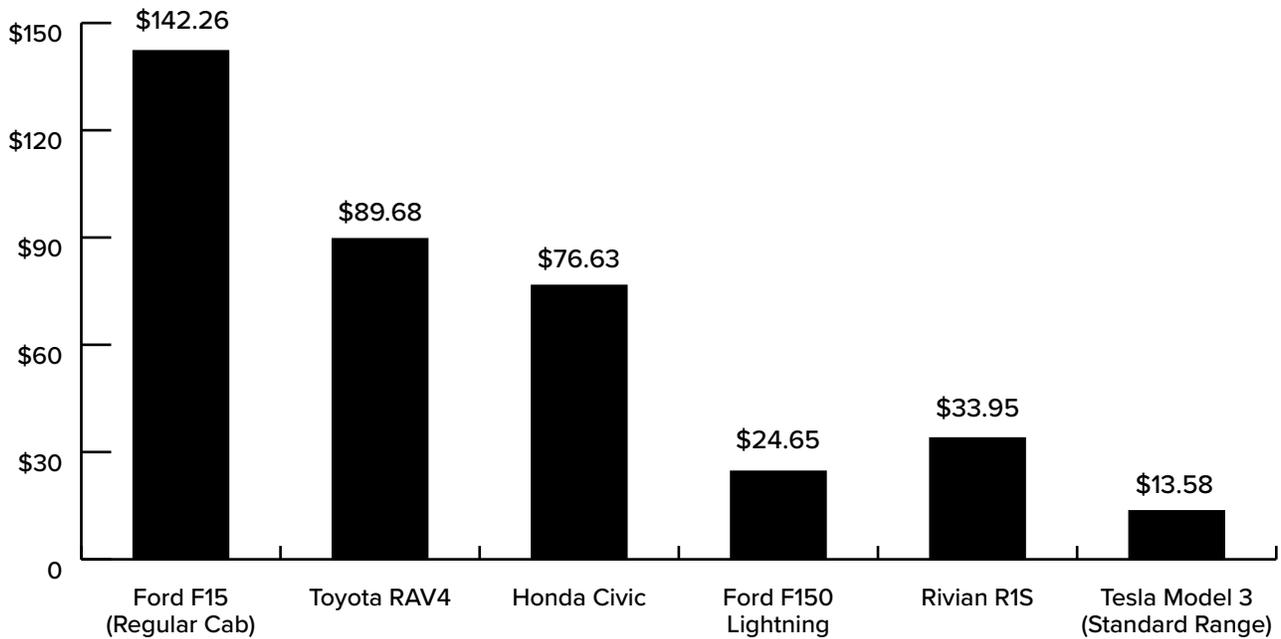
(As of July 7, 2022)

\$6.185

Avg. Energy Price per Kilowatt-hour of Electricity

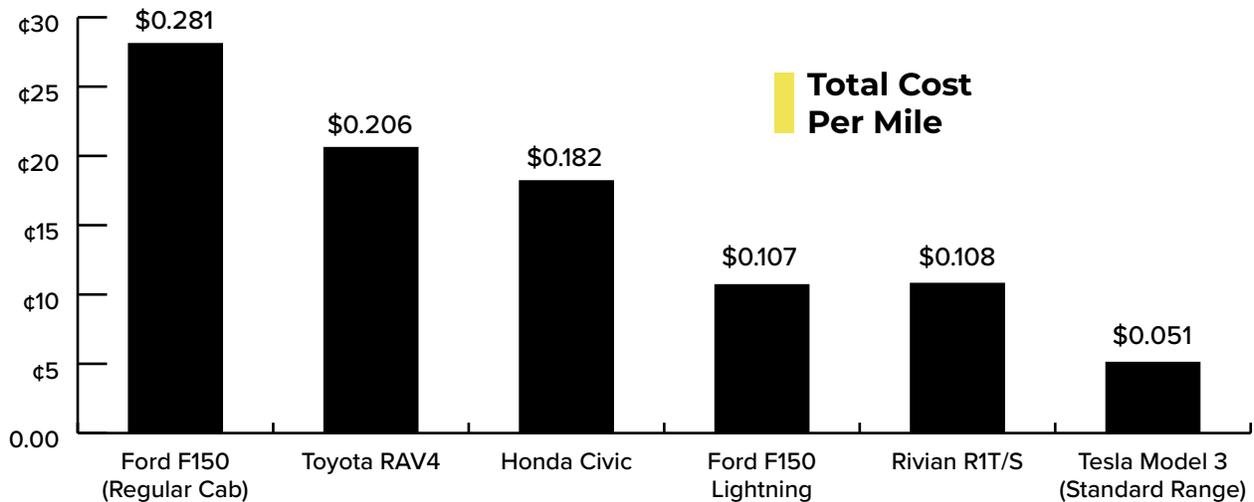
(As of April 2022)

\$0.2515



Total Fueling Cost

Total Charging Cost



Colorado

Avg. Energy Price per Gallon of Gasoline

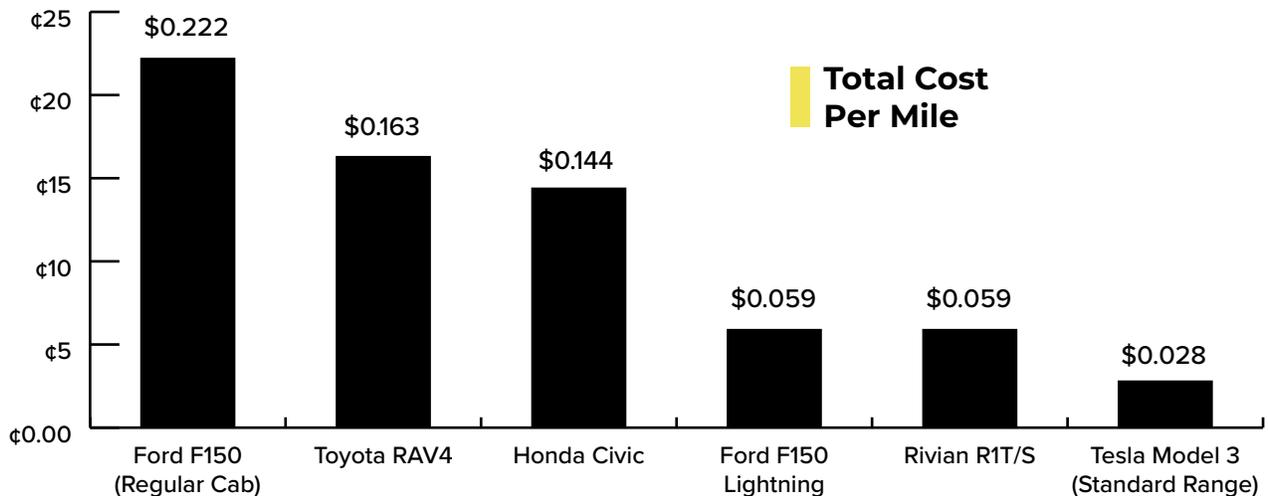
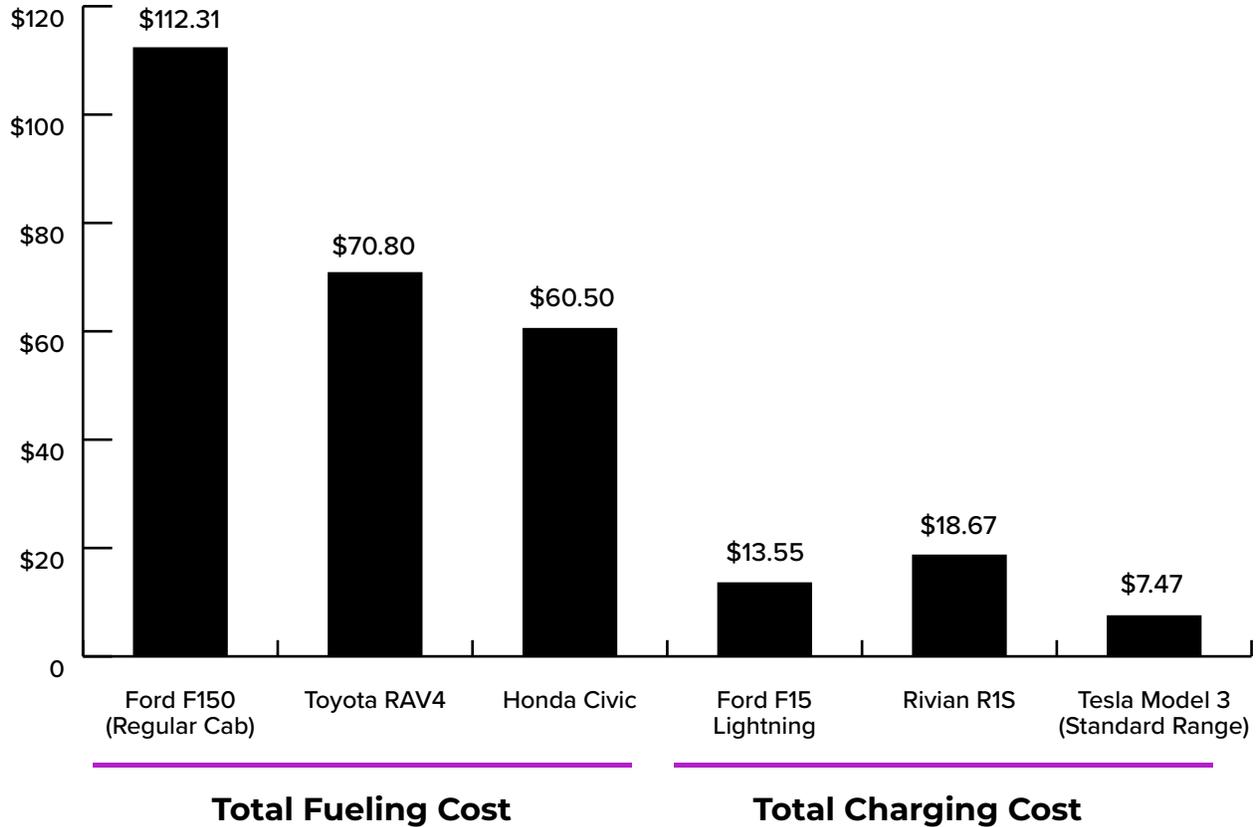
(As of July 7, 2022)

\$4.883

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1383





Florida

Avg. Energy Price per Gallon of Gasoline

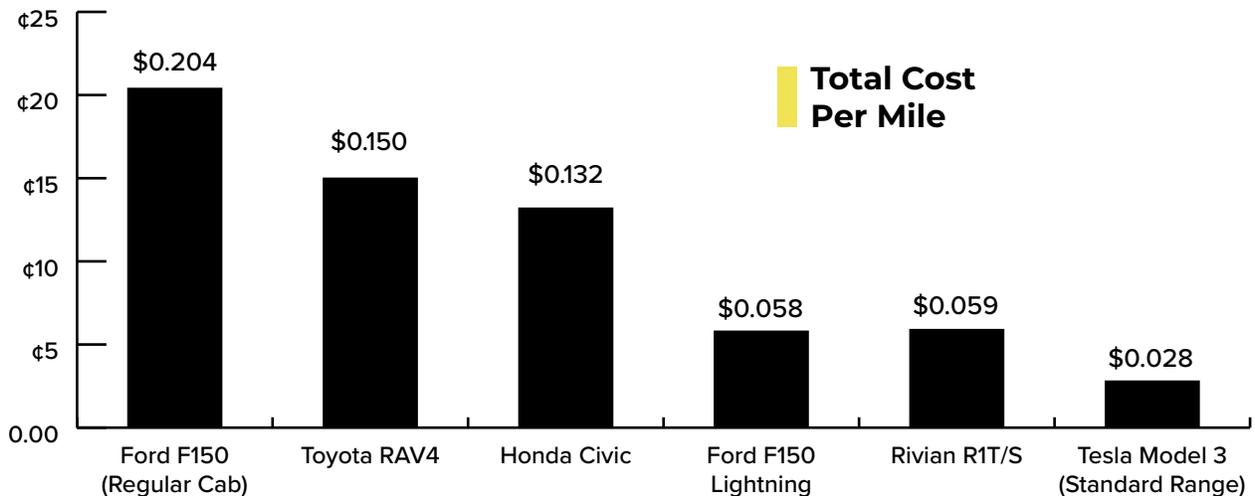
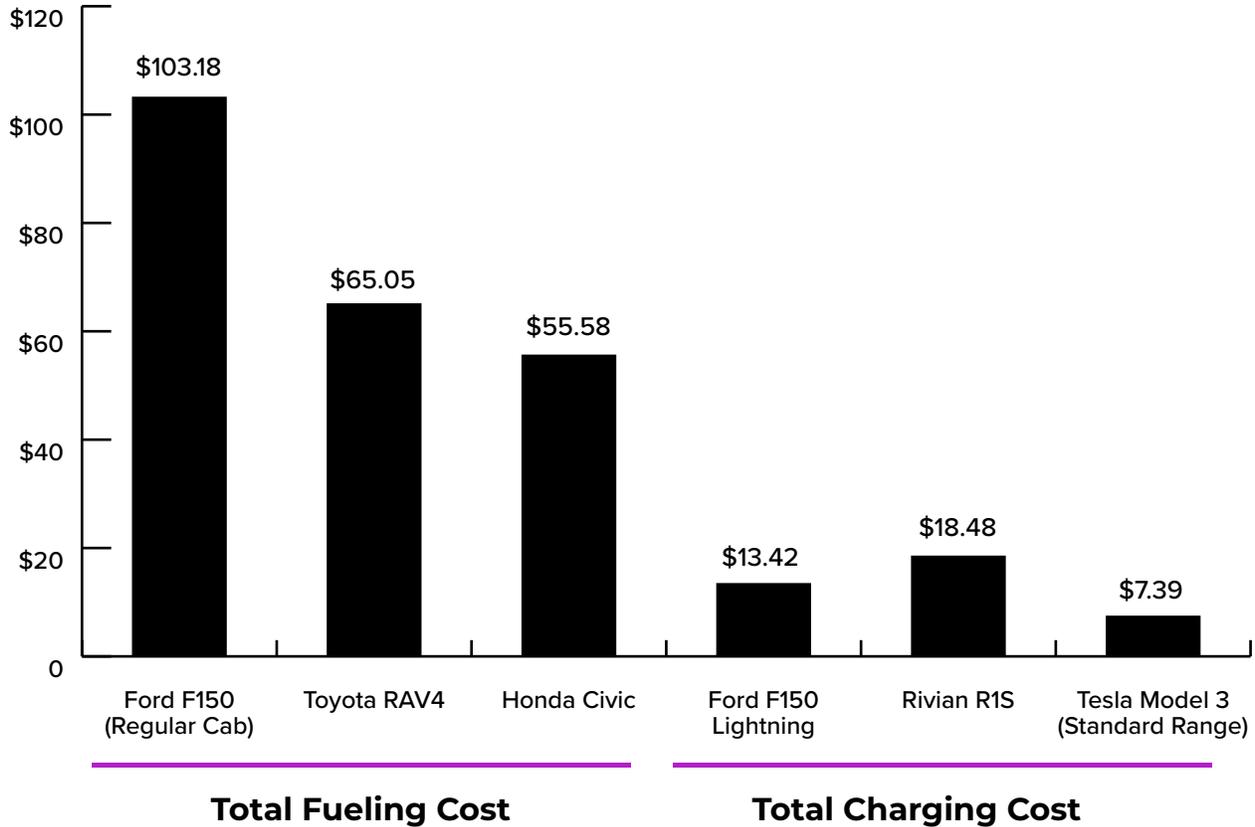
(As of July 7, 2022)

\$4.486

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1369



Georgia

Avg. Energy Price per Gallon of Gasoline

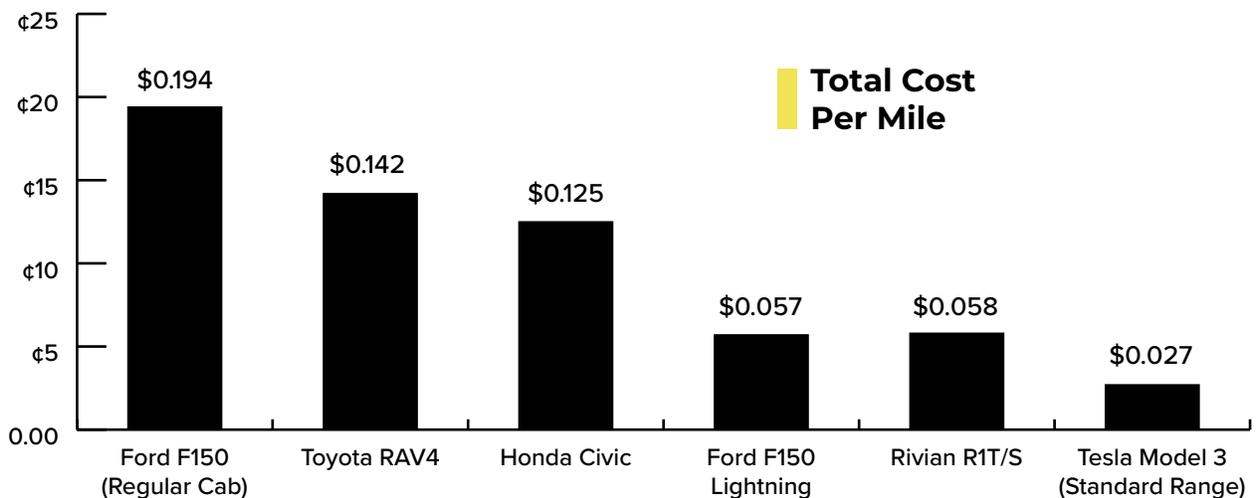
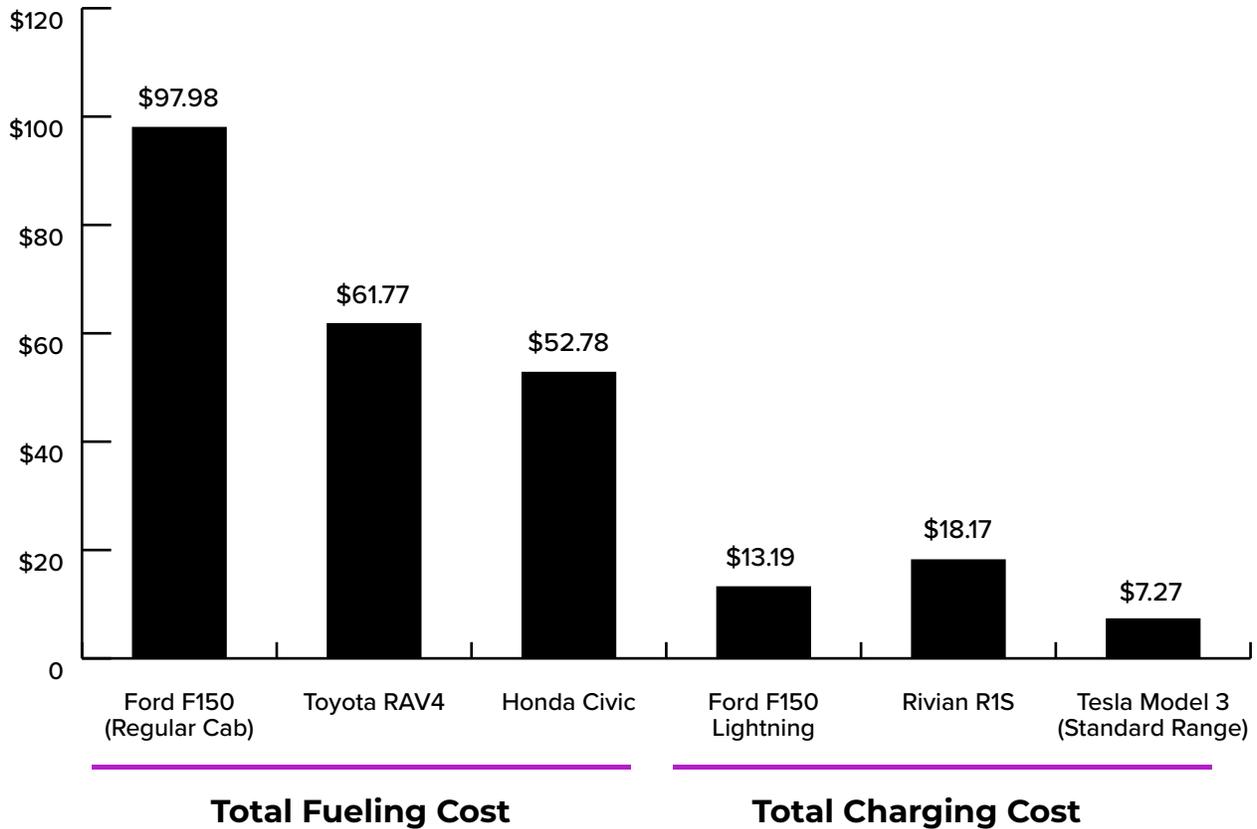
(As of July 7, 2022)

\$4.260

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1346





Michigan

Avg. Energy Price per Gallon of Gasoline

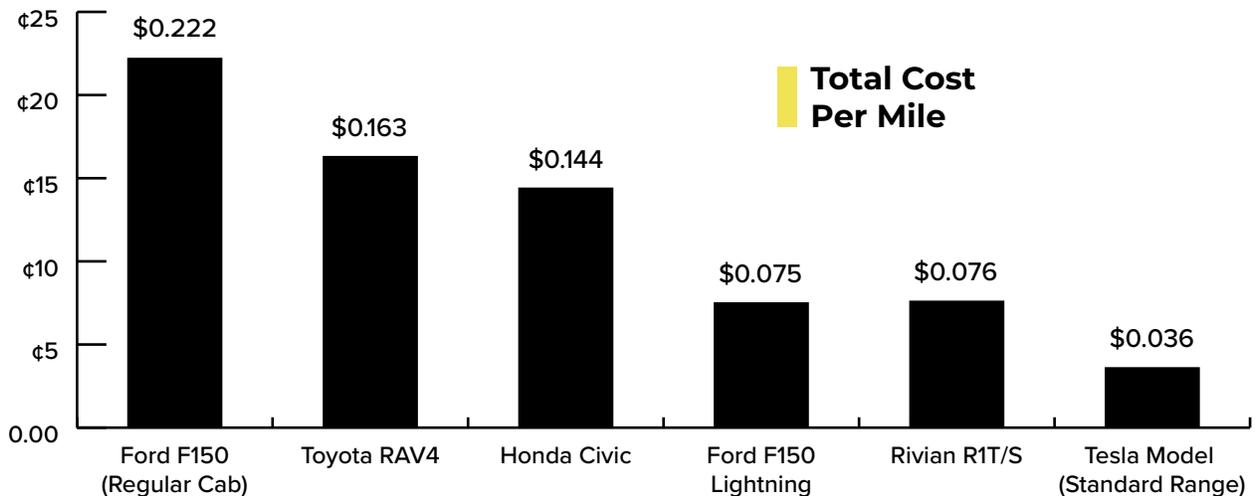
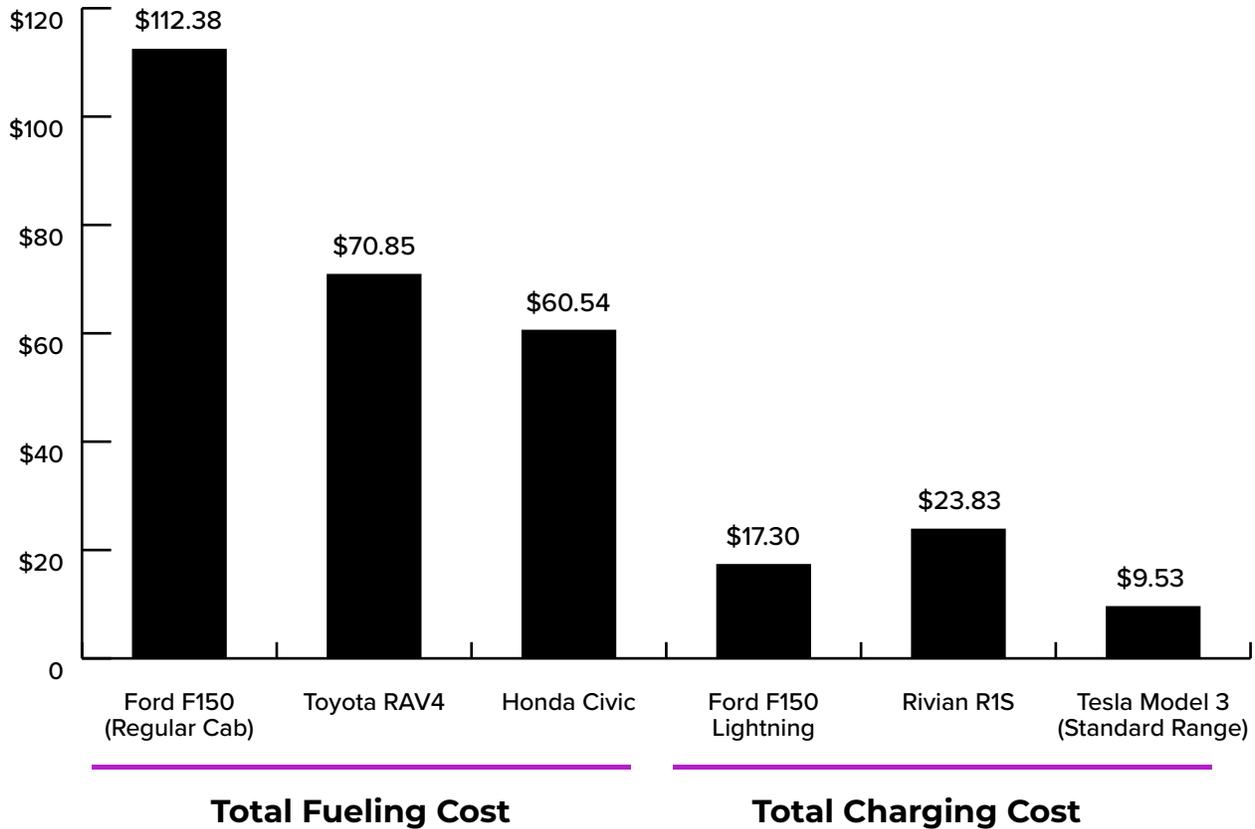
(As of July 7, 2022)

\$4.886

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1765





New Jersey

Avg. Energy Price per Gallon of Gasoline

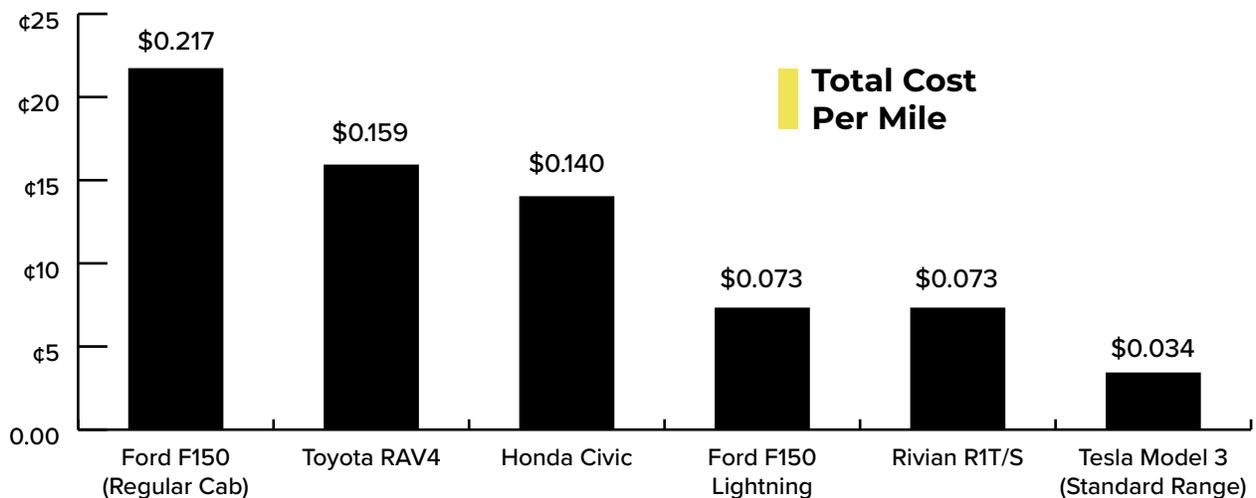
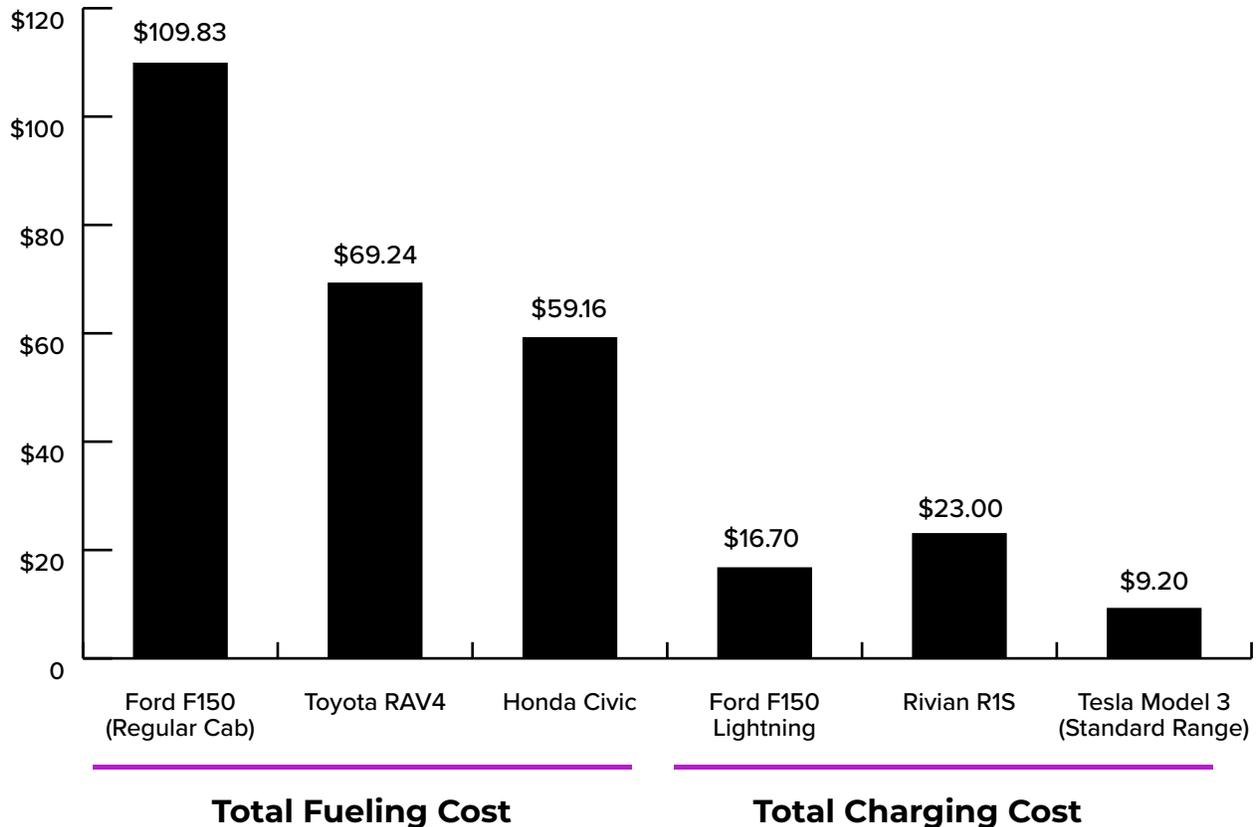
(As of July 7, 2022)

\$4.775

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1704



Nevada

Avg. Energy Price per Gallon of Gasoline

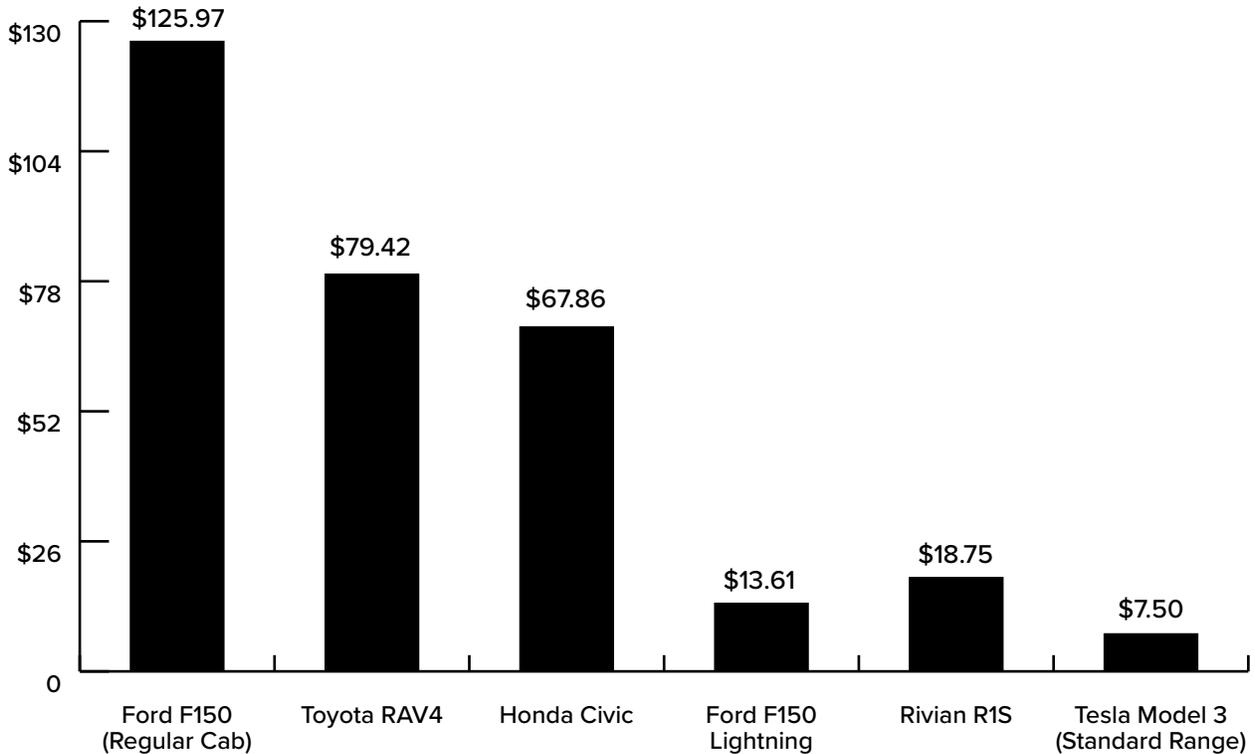
(As of July 7, 2022)

\$5.477

Avg. Energy Price per Kilowatt-hour of Electricity

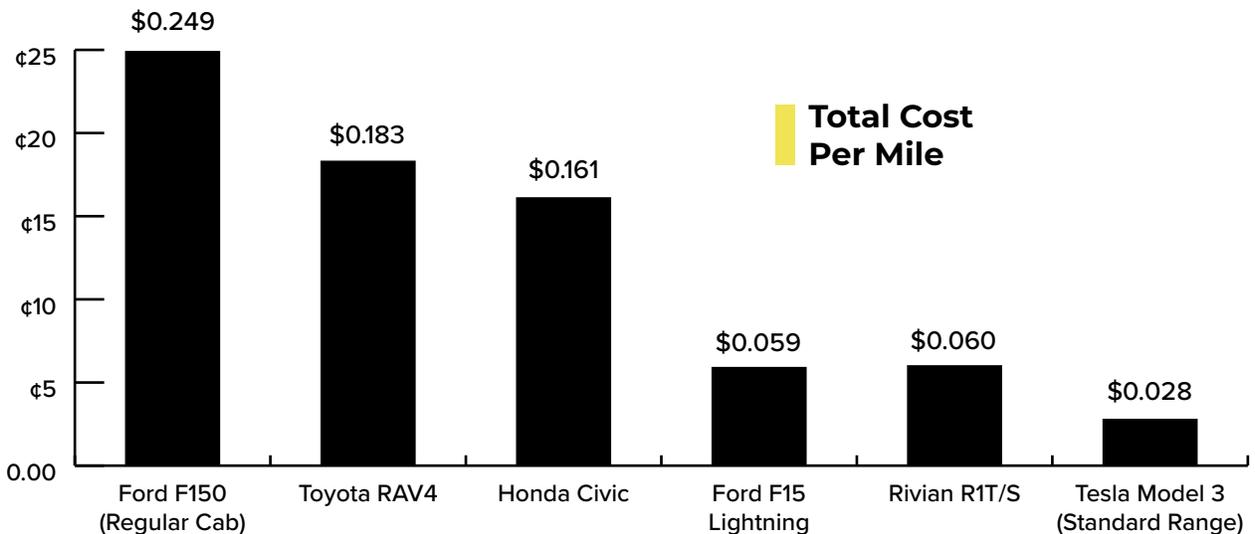
(As of April 2022)

\$0.1389



Total Fueling Cost

Total Charging Cost



New Mexico

Avg. Energy Price per Gallon of Gasoline

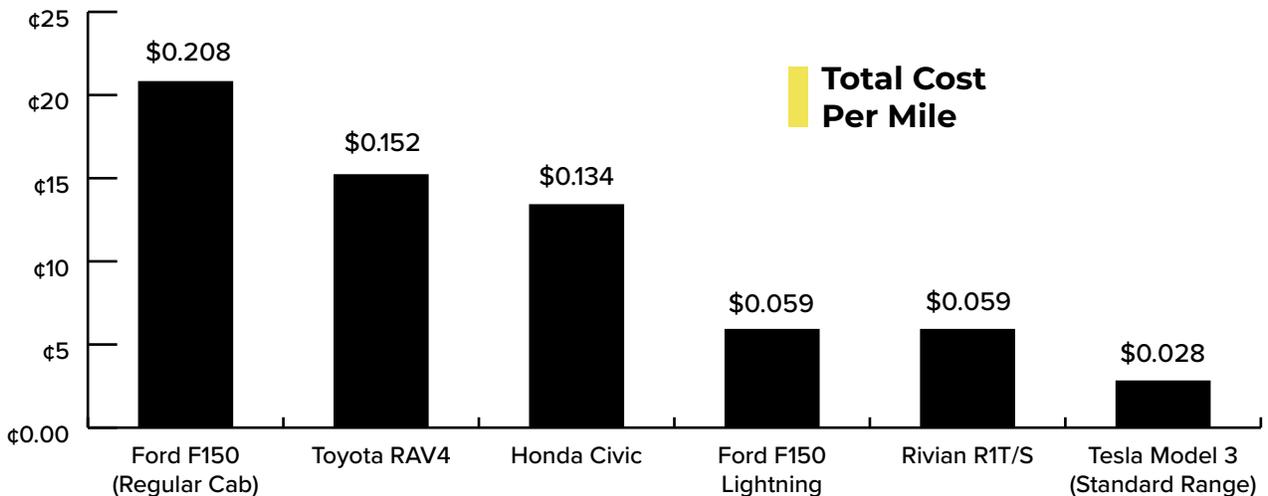
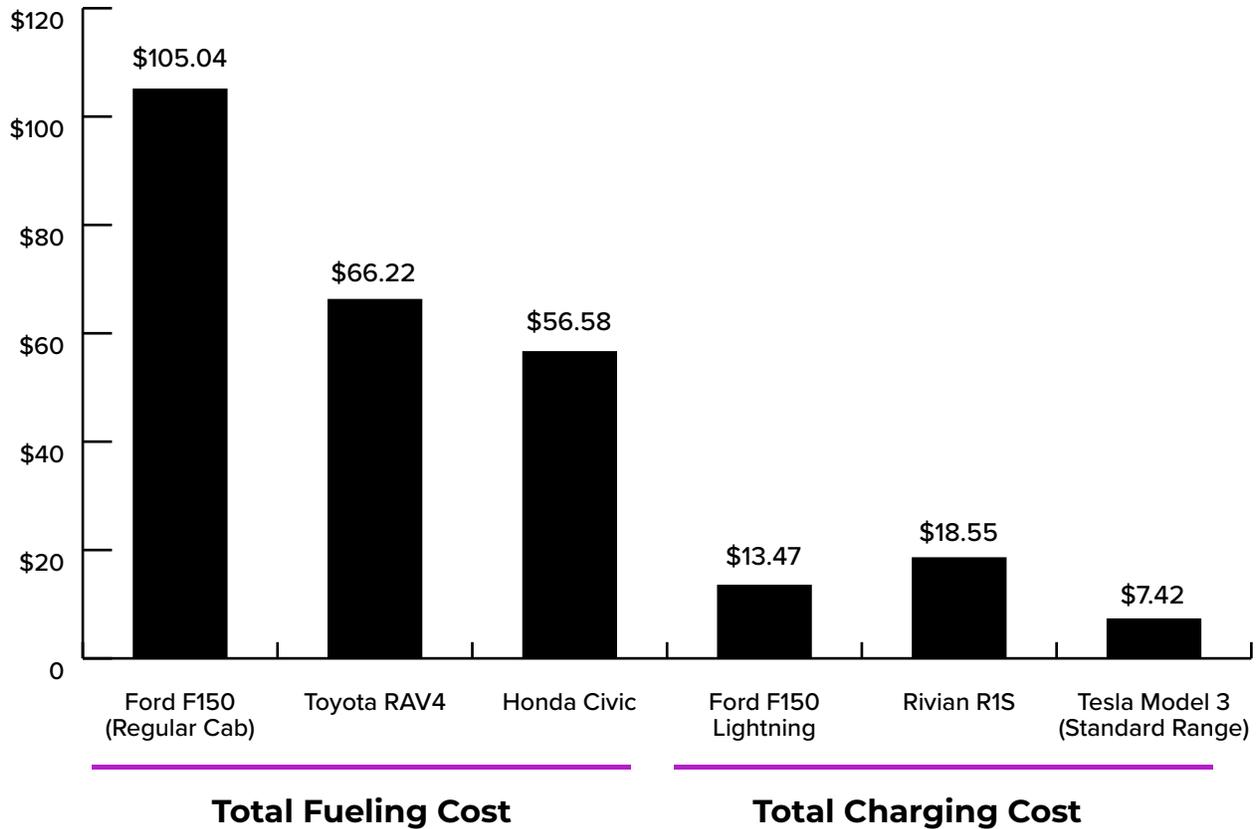
(As of July 7, 2022)

\$4.567

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1374





North Carolina

Avg. Energy Price per Gallon of Gasoline

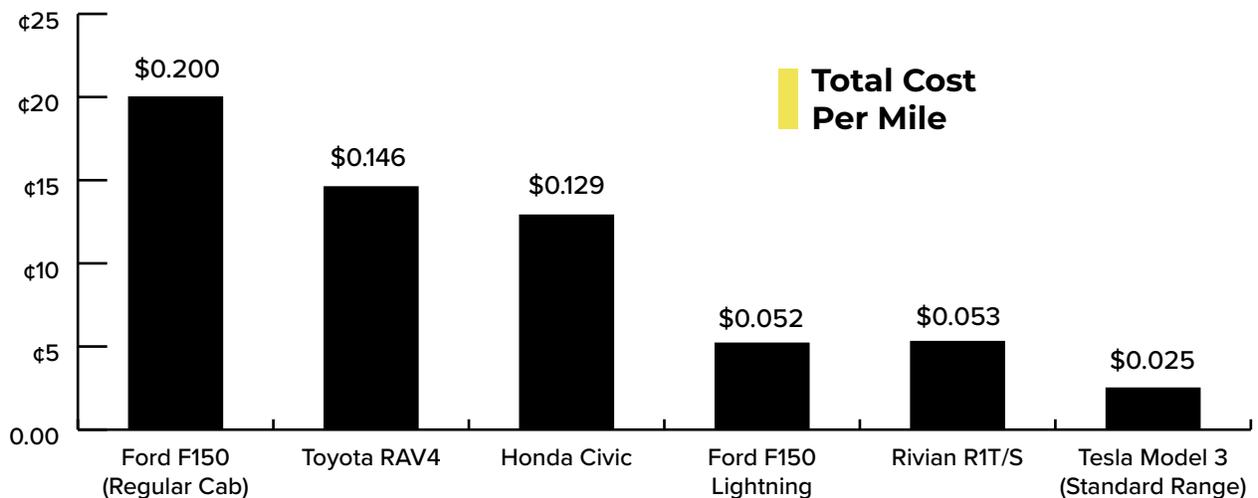
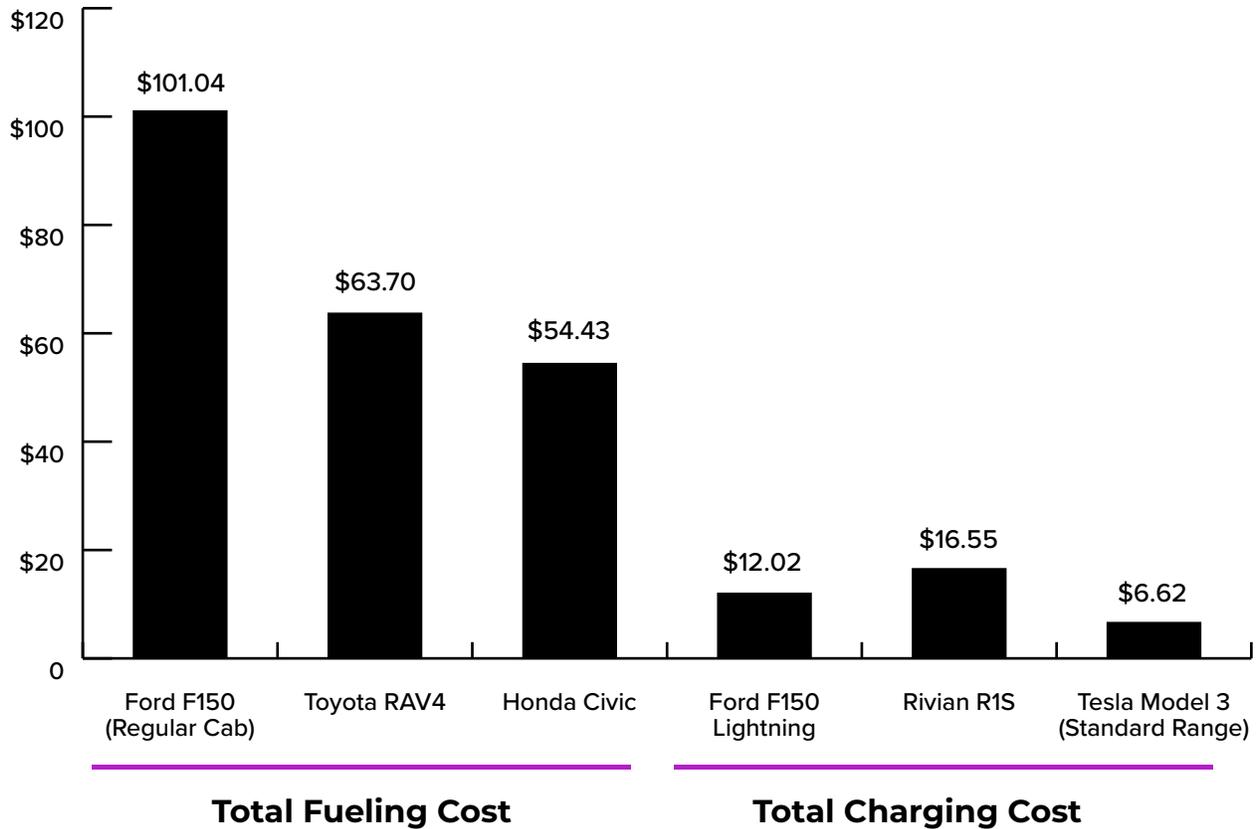
(As of July 7, 2022)

\$4.393

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1226





Avg. Energy Price per Gallon of Gasoline

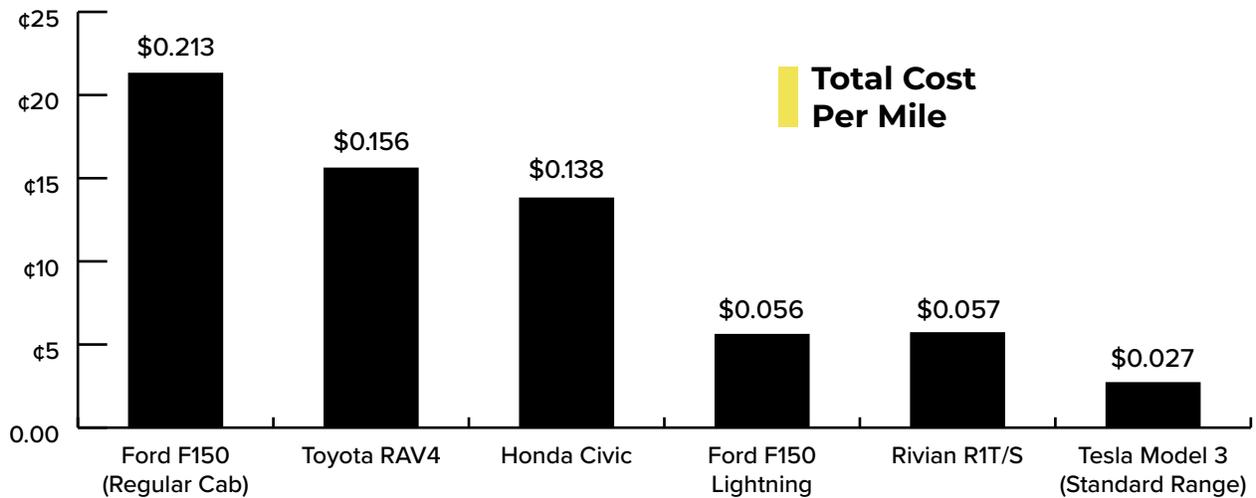
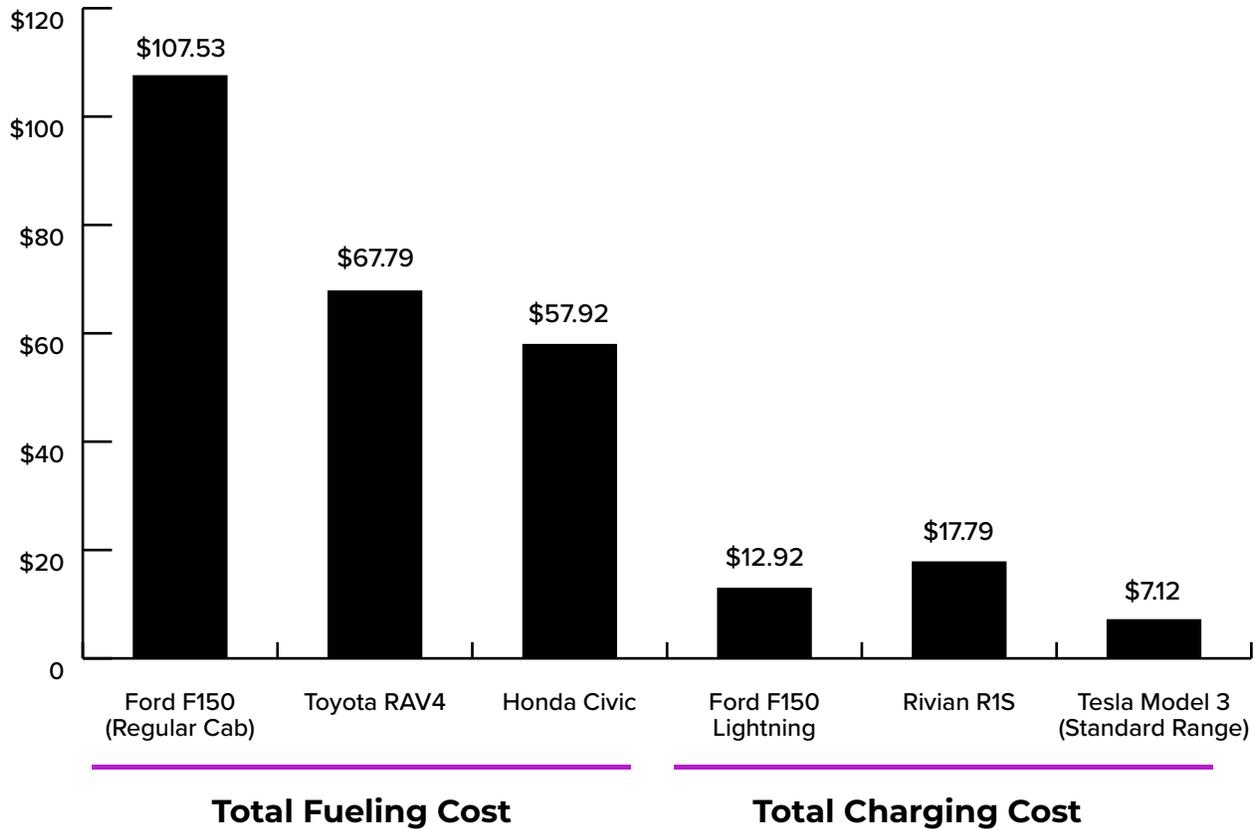
(As of July 7, 2022)

\$4.675

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1318



Pennsylvania

Avg. Energy Price per Gallon of Gasoline

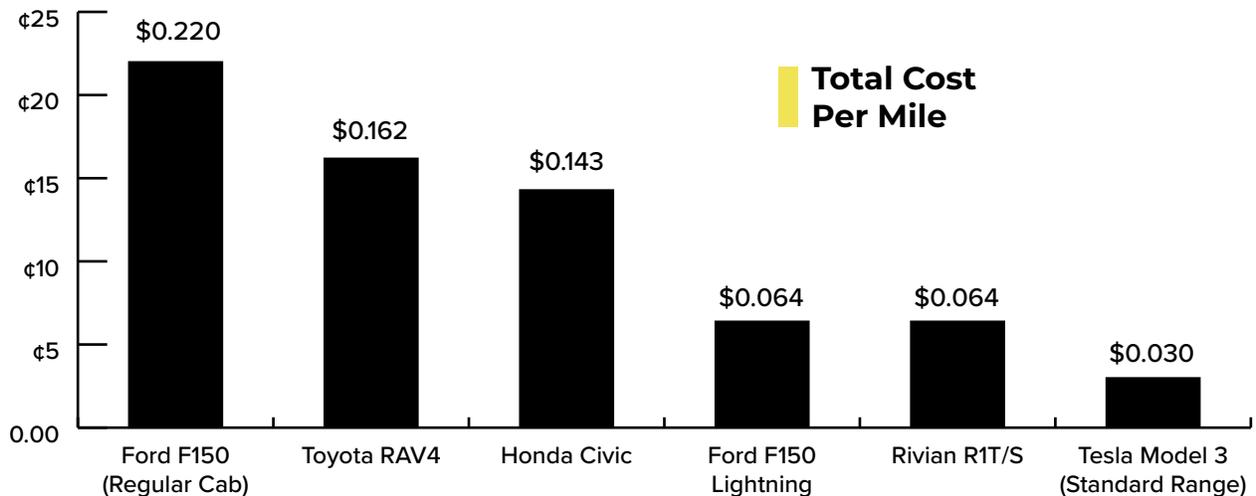
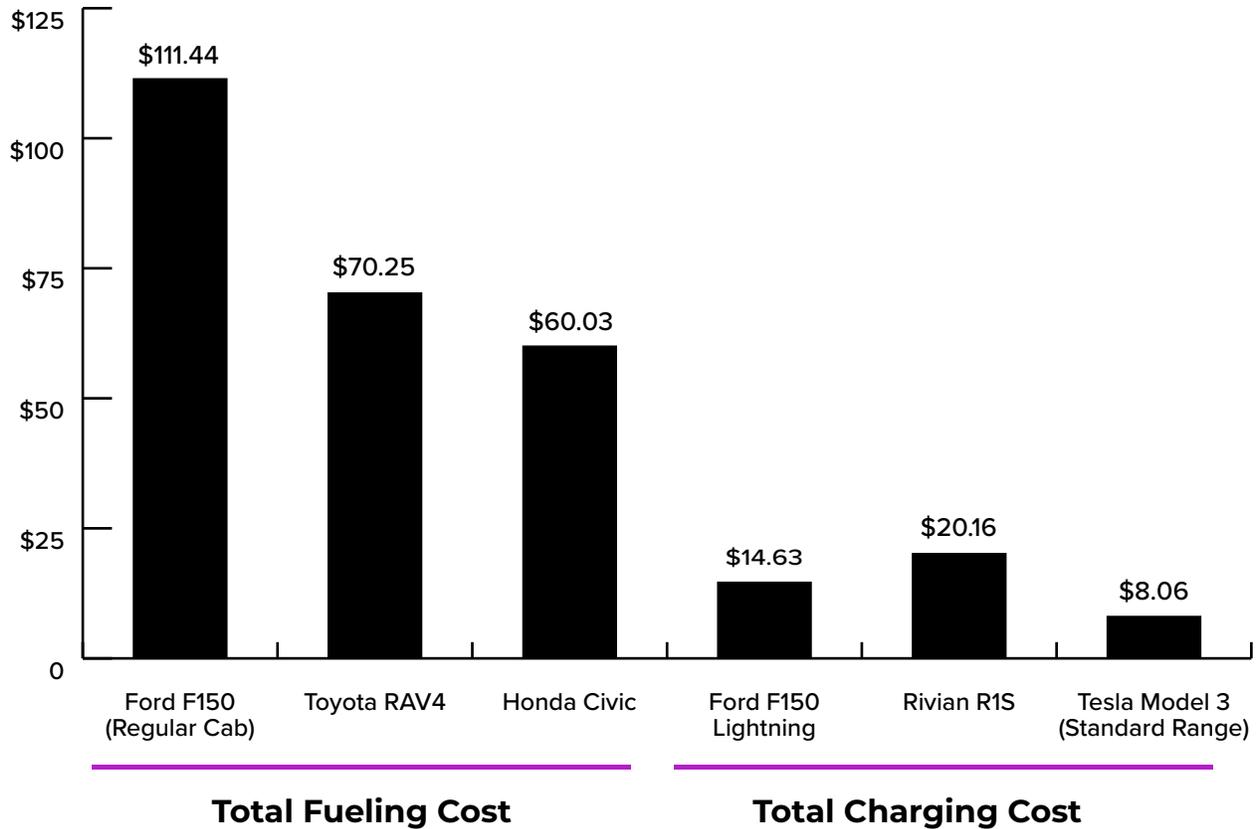
(As of July 7, 2022)

\$4.845

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1493





Tennessee

Avg. Energy Price per Gallon of Gasoline

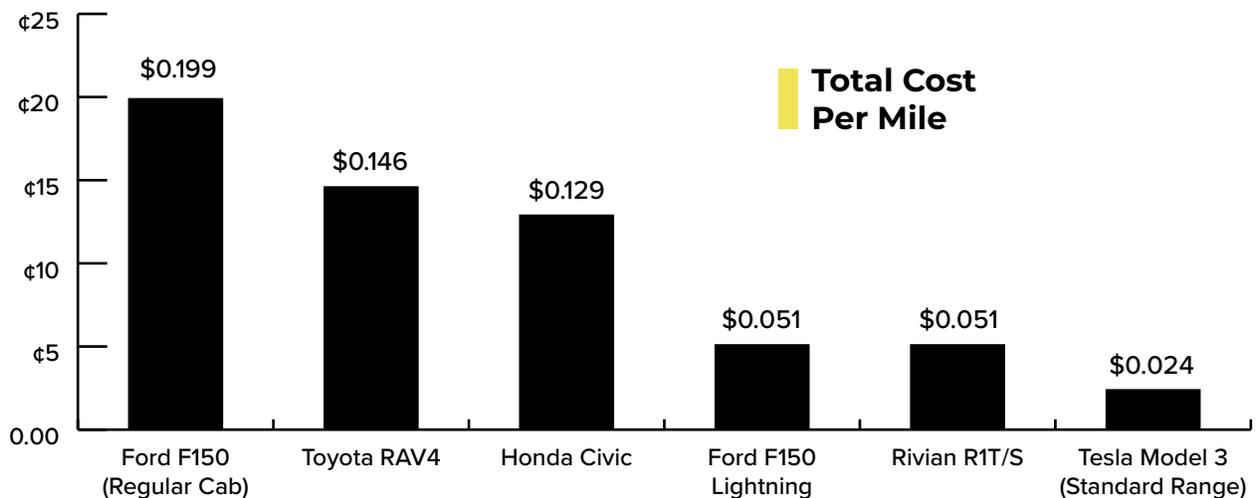
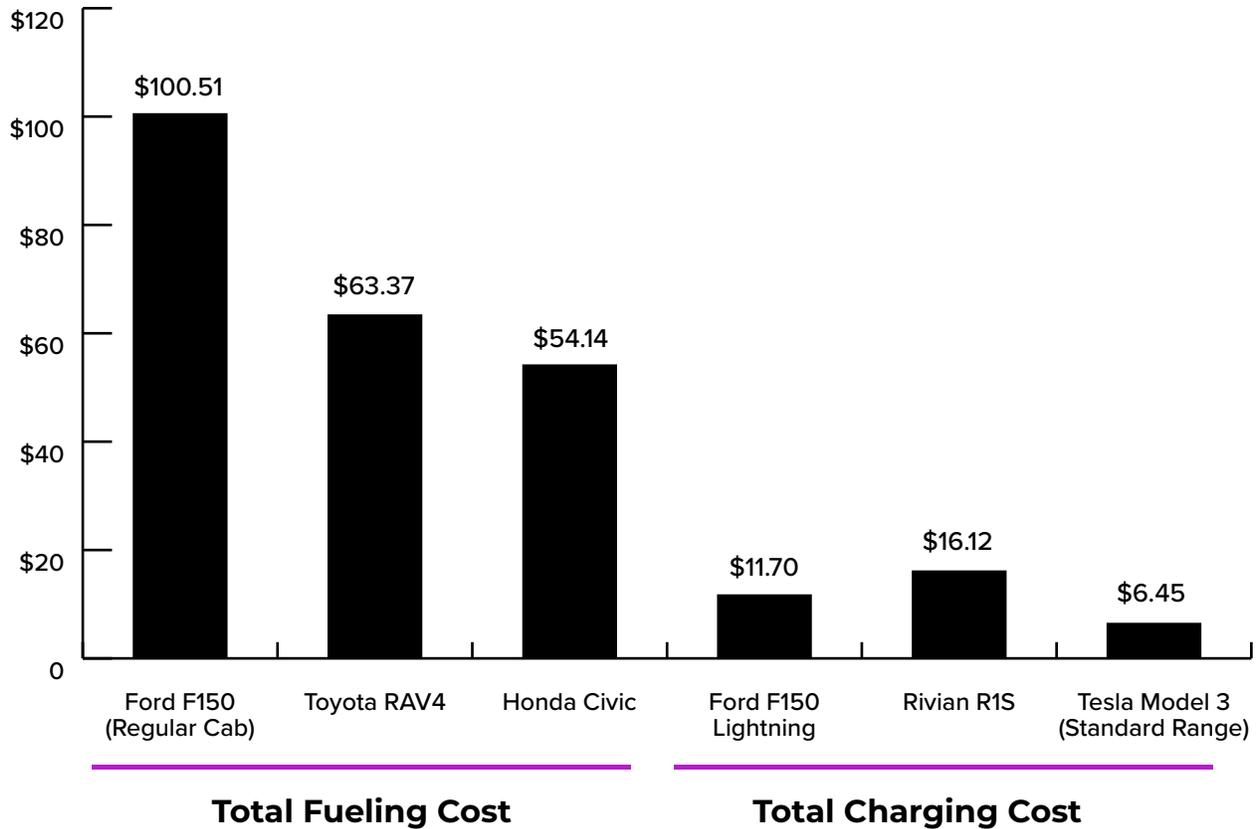
(As of July 7, 2022)

\$4.370

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1194





Texas

Avg. Energy Price per Gallon of Gasoline

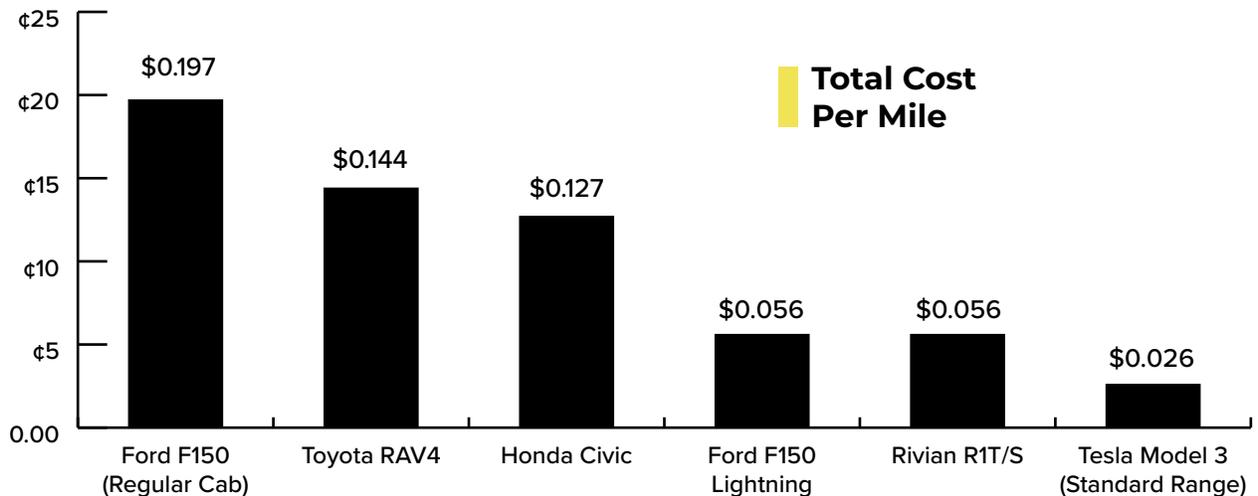
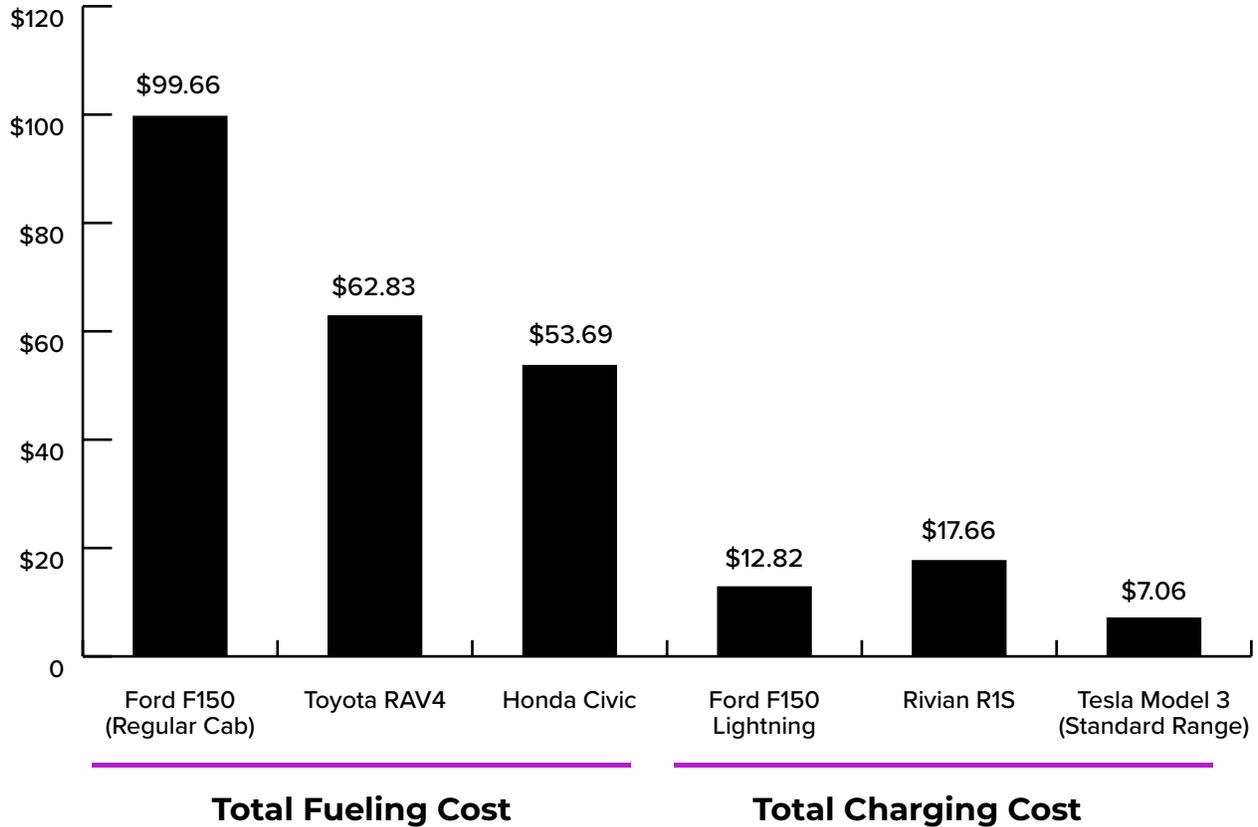
(As of July 7, 2022)

\$4.333

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1308





Avg. Energy Price per Gallon of Gasoline

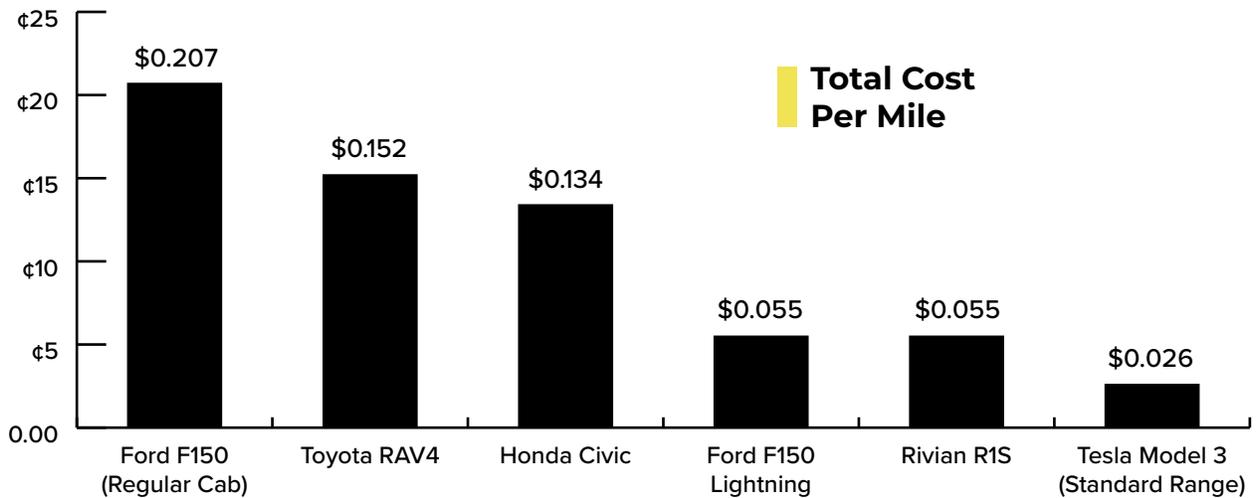
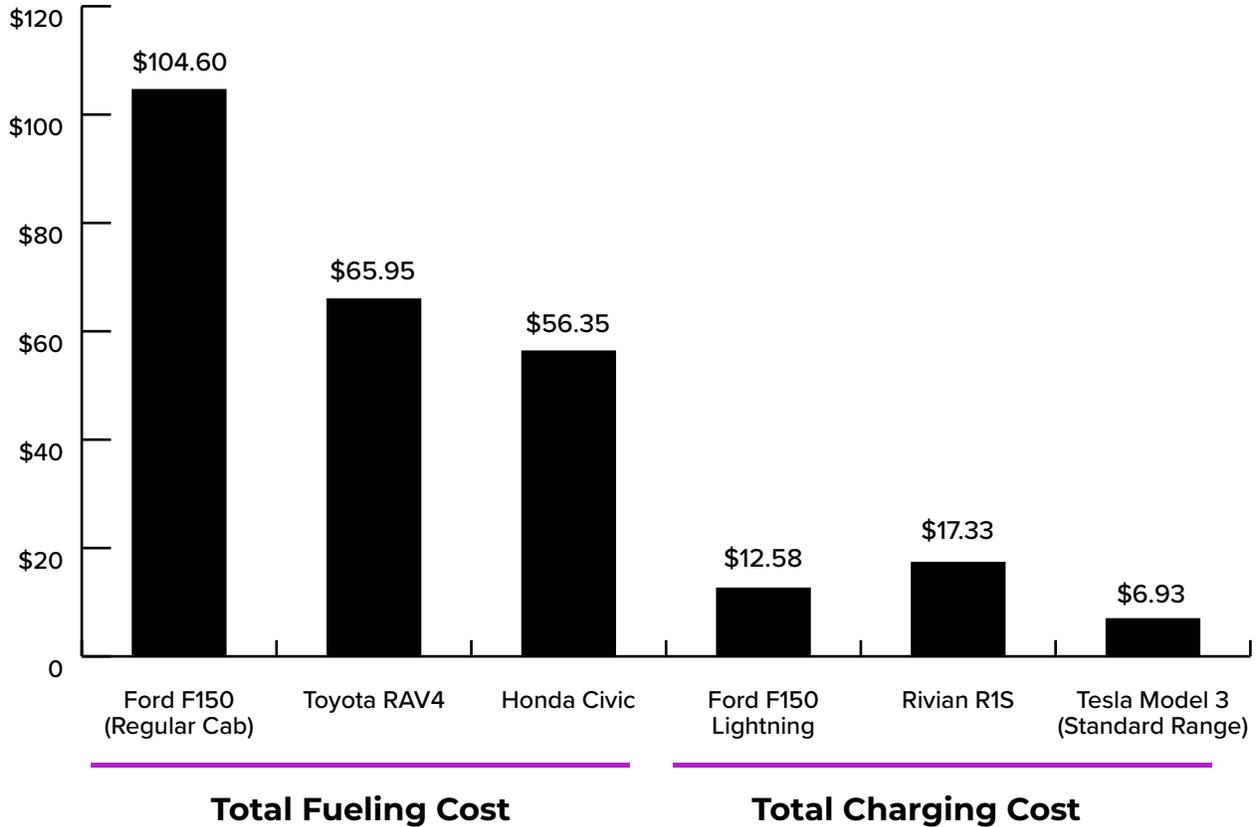
(As of July 7, 2022)

\$4.548

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1284





West Virginia

Avg. Energy Price per Gallon of Gasoline

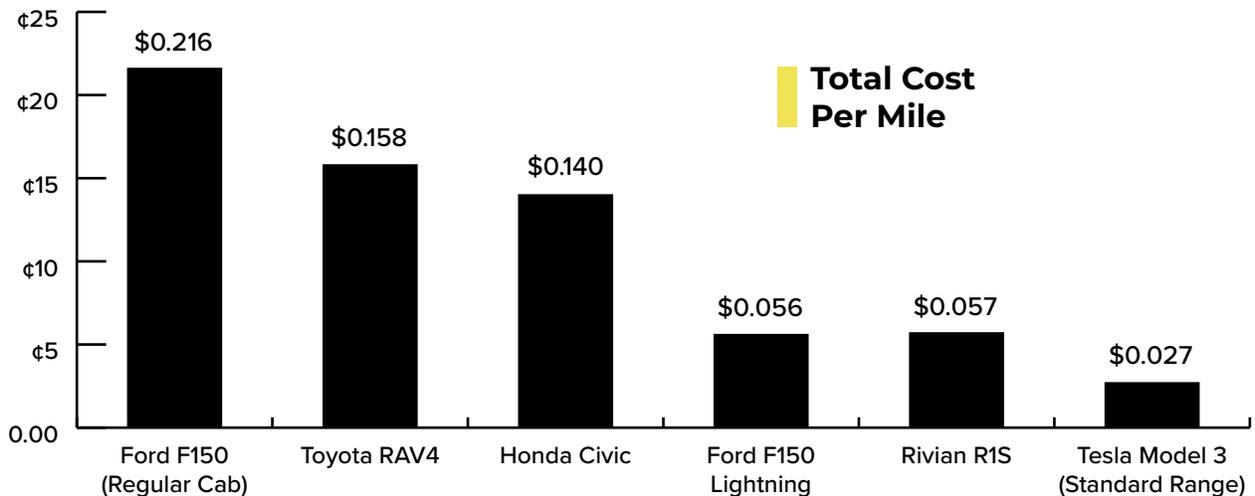
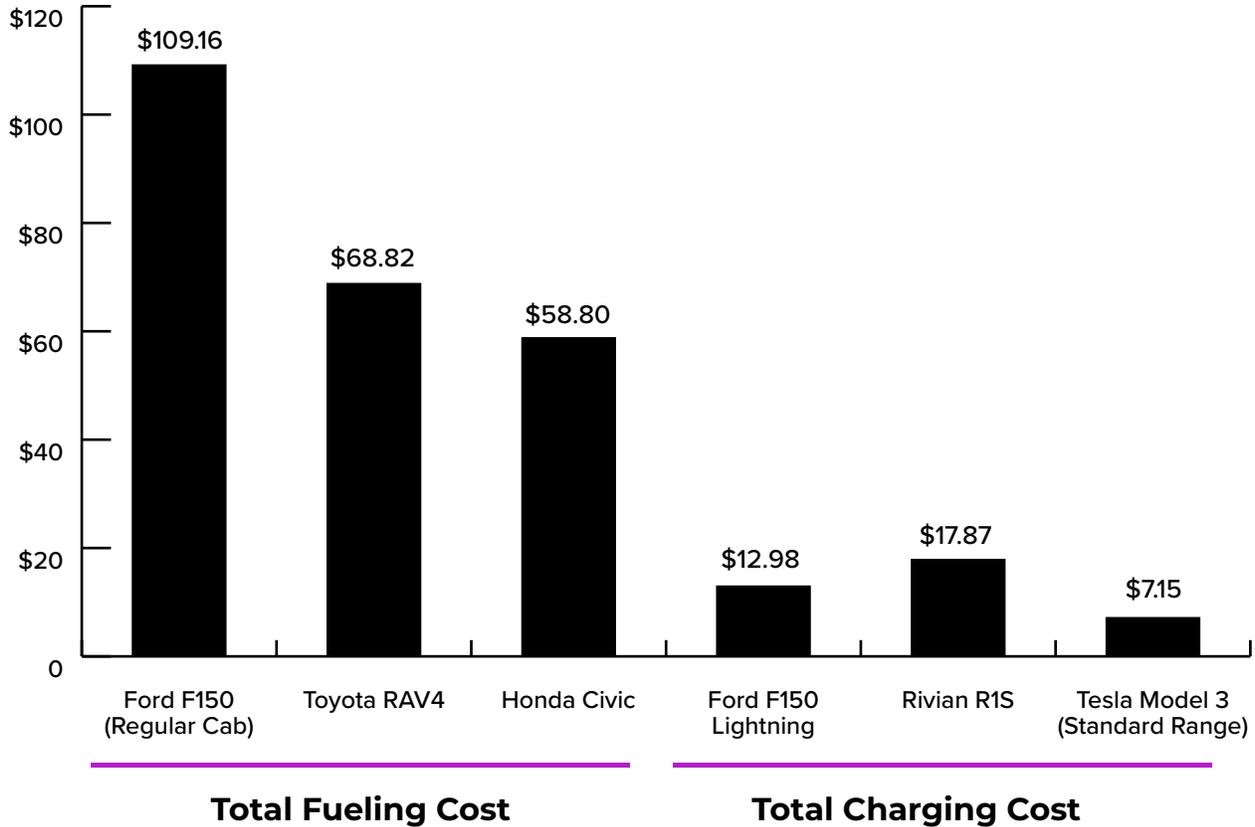
(As of July 7, 2022)

\$4.746

Avg. Energy Price per Kilowatt-hour of Electricity

(As of April 2022)

\$0.1324





Avg. Energy Price per Gallon of Gasoline

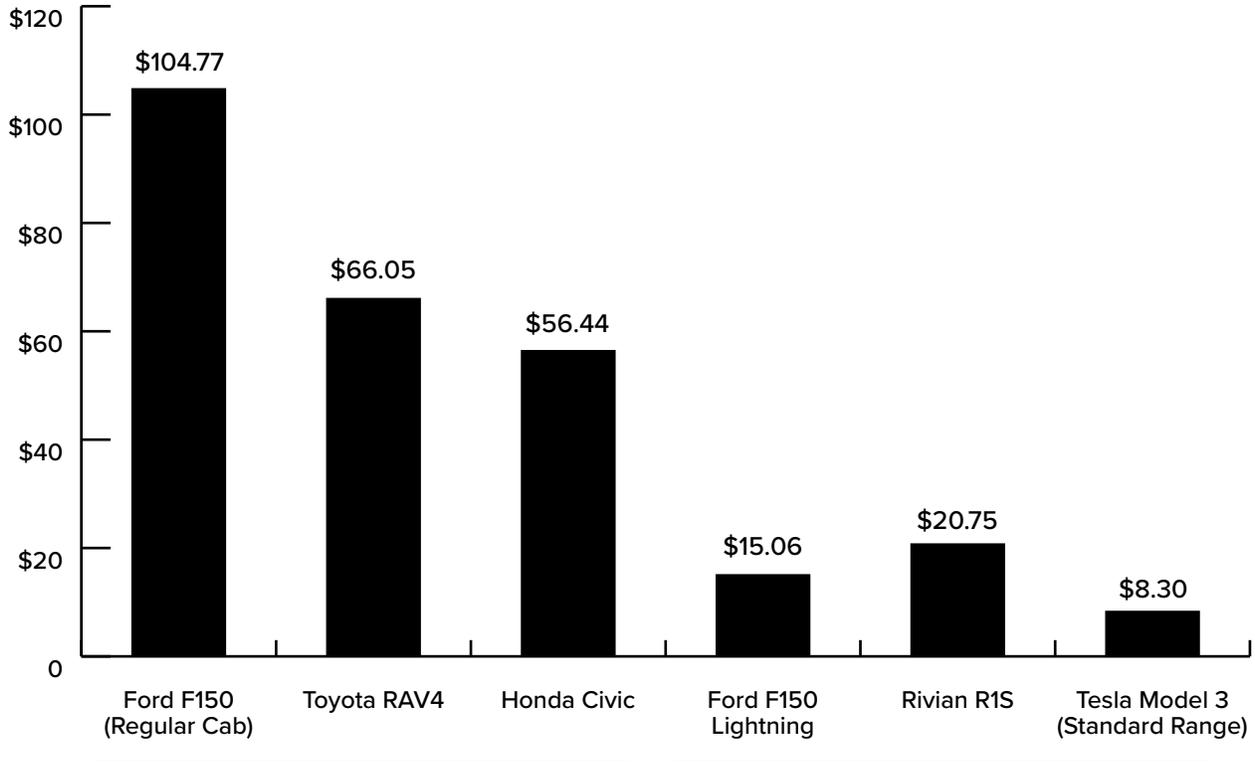
(As of July 7, 2022)

\$4.555

Avg. Energy Price per Kilowatt-hour of Electricity

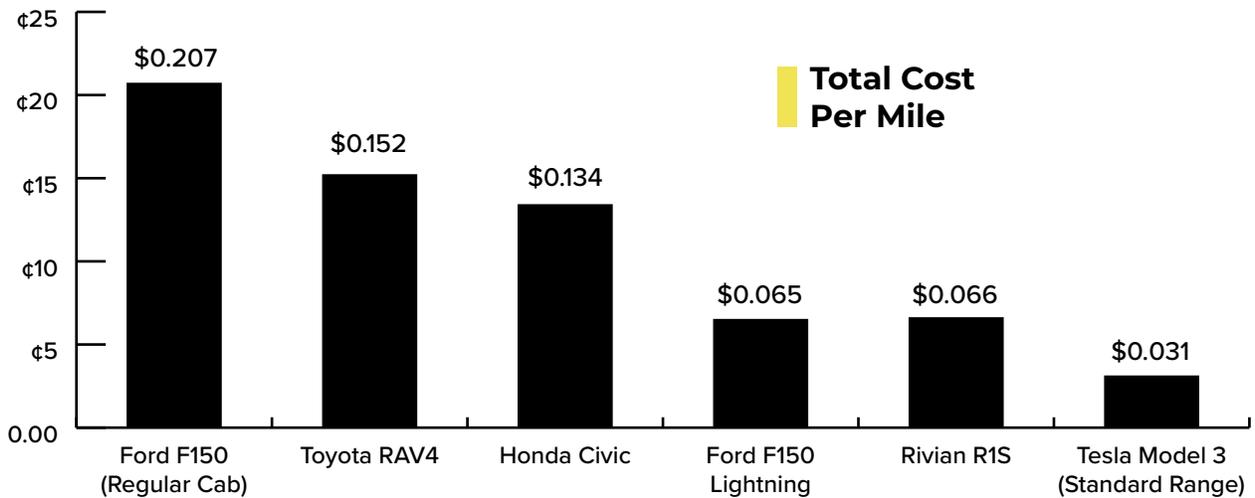
(As of April 2022)

\$0.1537



Total Fueling Cost

Total Charging Cost



■ Sources and Info

*Gasoline prices are based on July 2022 data, and residential end-use sector electricity prices are based on April 2022 data. In both cases, these are the most recent available data. Electricity prices have been relatively static; in many states, the price of residential end-use sector electricity has decreased from previous iterations of this report, which is updated monthly.

Gas Prices as of July 7, 2022: <https://gasprices.aaa.com/>

Electricity Prices in Residential End-Use Sector in April 2022 (most recent data available):
<https://www.eia.gov/electricity/monthly/>

Ford F150: <https://www.ford.com/trucks/f150/models/f150-xl/>

Toyota RAV4: <https://www.toyota.com/rav4/features/mpg/4430>

Honda Civic:

<https://hondanews.com/en-US/honda-automobiles/releases/release-abdd33728c044217ba85db3c233b2483-2020-civic-hatchback-specifications-features>

Ford F150 Lightning:

https://www.greencarreports.com/news/1134532_ford-confirms-f-150-lightning-ev-battery-pack-details-range-estimates

Rivian R1T + R1S: <https://www.caranddriver.com/news/a37500438/rivian-r1t-r1s-epa-range/>

Tesla Model 3: <https://www.evspecifications.com/en/model-driving-range/cc48e0>

■ Additional Resources

Gas Gallons vs. Electricity E-Gallons: <https://www.energy.gov/maps/egallon>

Vehicle Fueling Cost Calculator: <https://afdc.energy.gov/calc/>

■ About ZETA

The Zero Emission Transportation Association (ZETA) is a federal coalition focused on advocating for 100% EV sales by 2030. ZETA is committed to enacting policies that drive EV adoption, create hundreds of thousands of jobs, secure American global EV manufacturing leadership, drastically improve public health, and significantly reduce carbon pollution.