

Z E T A

ELECTRIC VEHICLES

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

JUNE 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.

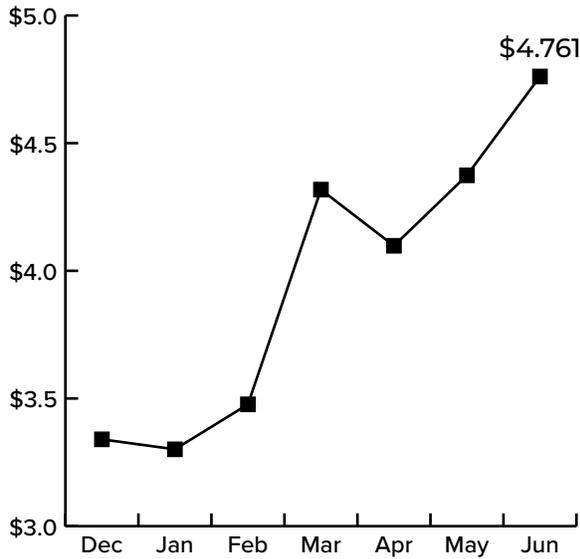
EVs are far cheaper to drive than gas-powered vehicles. Nationally, gas-powered vehicles are 3-5 times more expensive to drive per mile than EVs. In several states (including Arizona, Florida, Nevada, North Carolina, Ohio, Tennessee, and Virginia), EVs can be driven at just 15-20% of the cost of gas-powered 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.

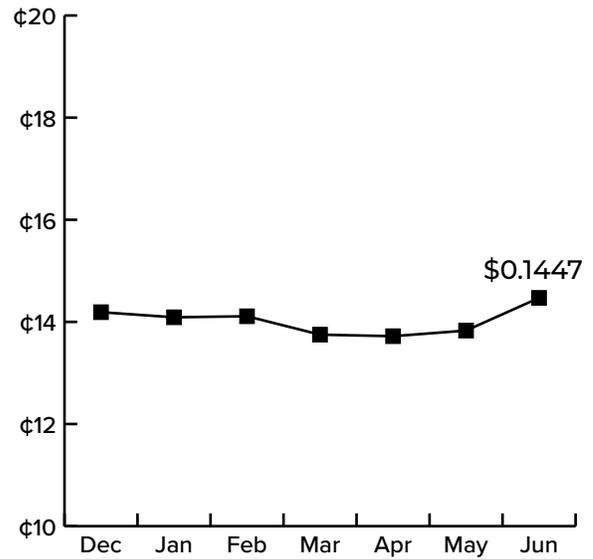
EVs will cost even less to buy if Congress passes strong EV tax credits. The proposed EV tax credit expansion in the clean energy tax plan will further reduce EV sticker prices, making it cost less to both buy and drive an EV. This will help establish American EV manufacturers compete against foreign 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

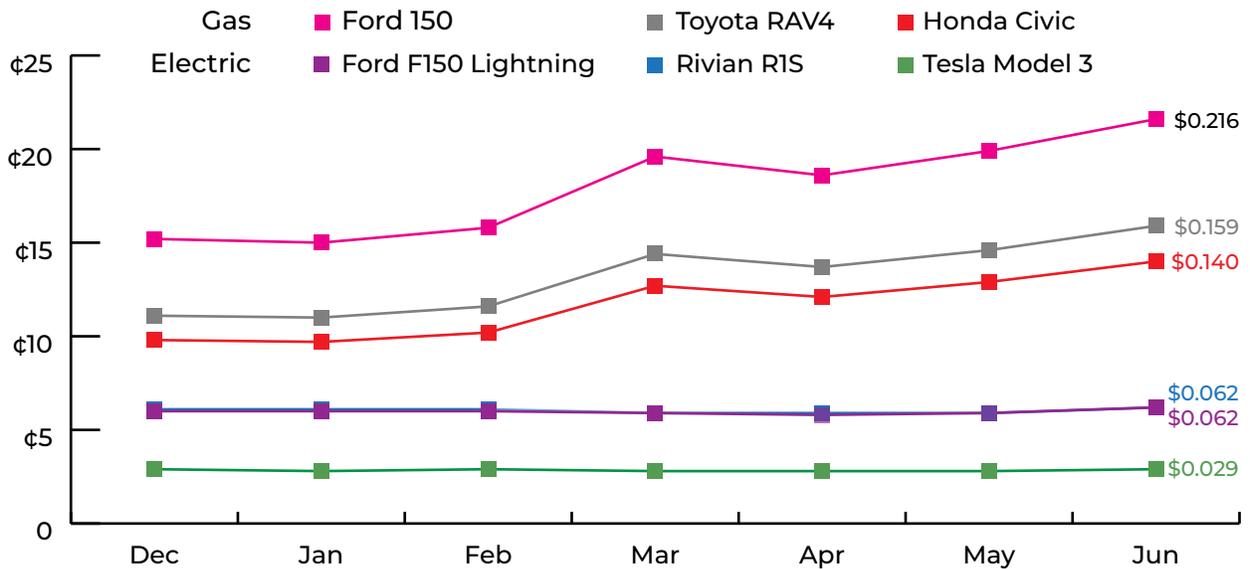
National Avg. Cost Per Gallon of Gasoline



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

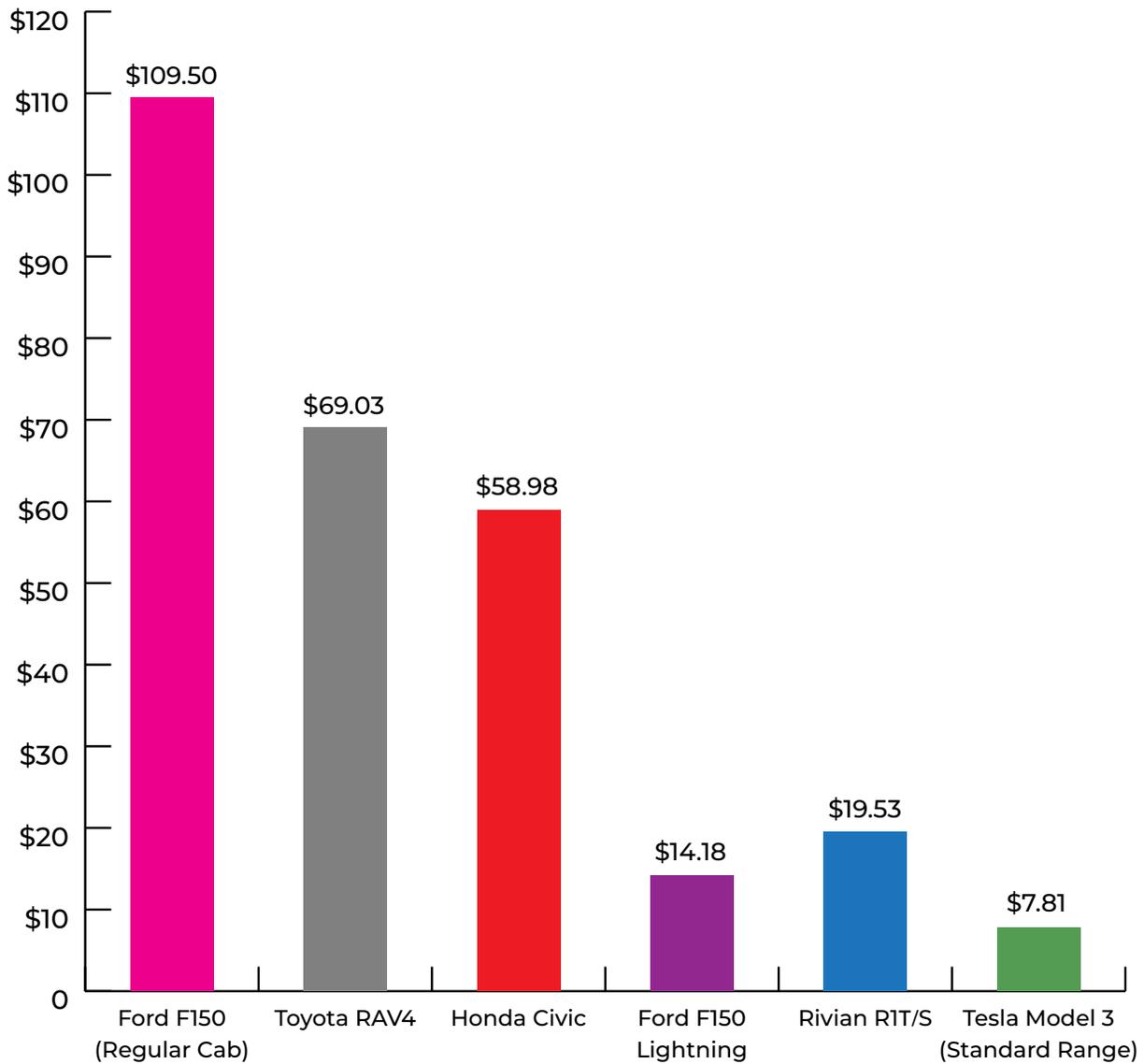
(As of June 3, 2022)

\$4.761

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1447



Total Fueling Cost

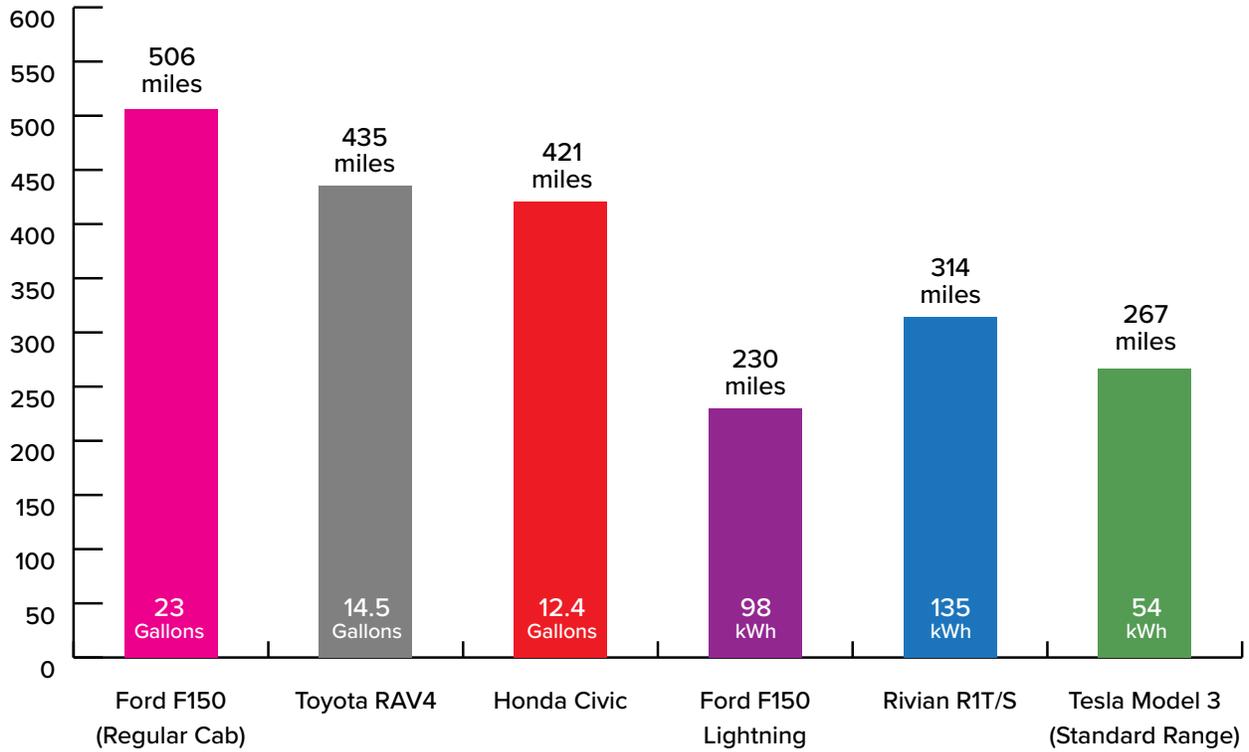
(Internal Combustion Engine Vehicles)

Total Charging Cost

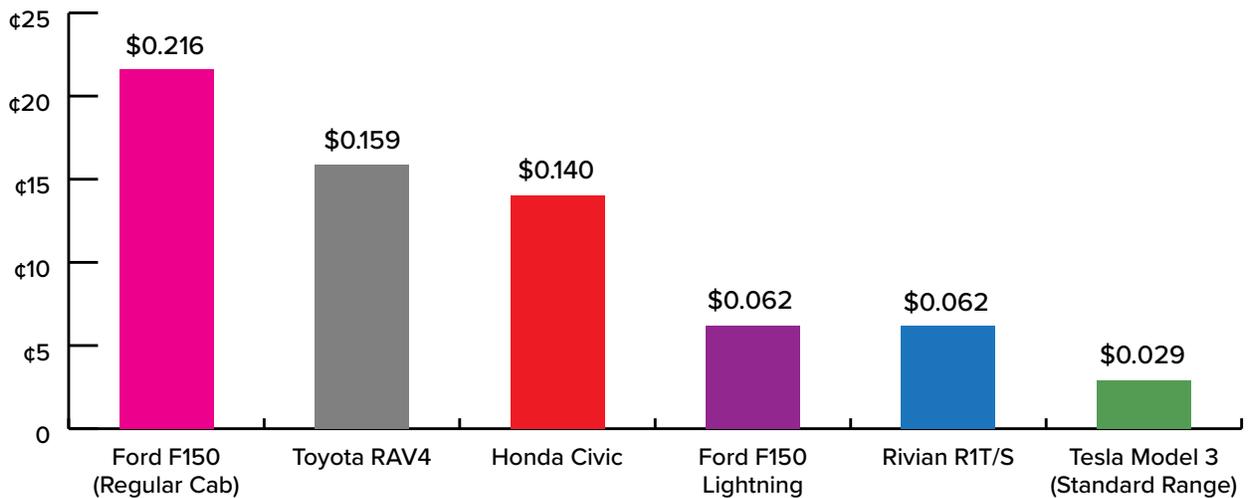
(Electric Vehicles)

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

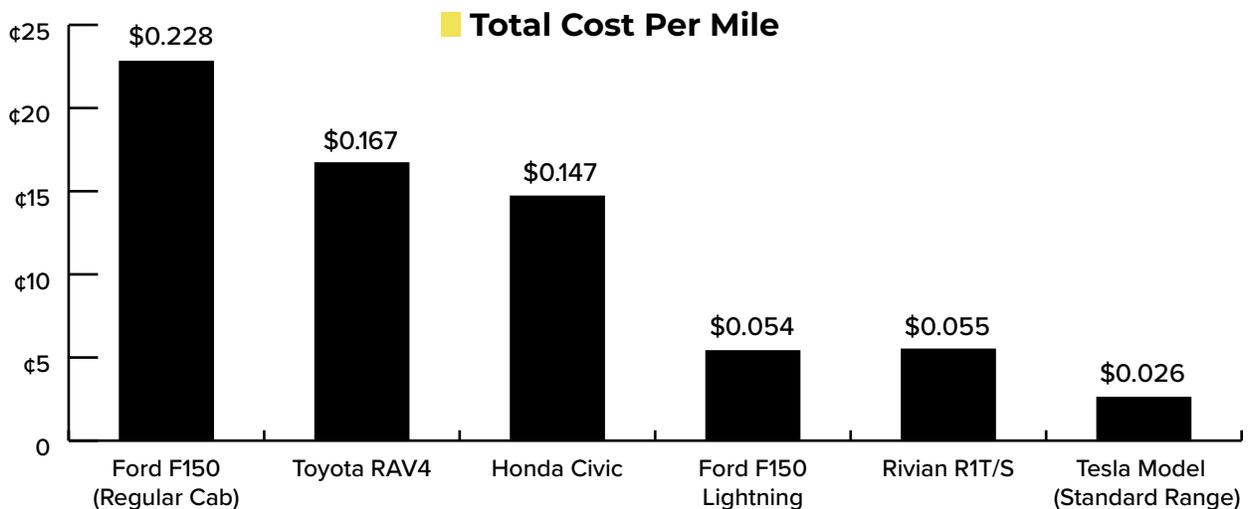
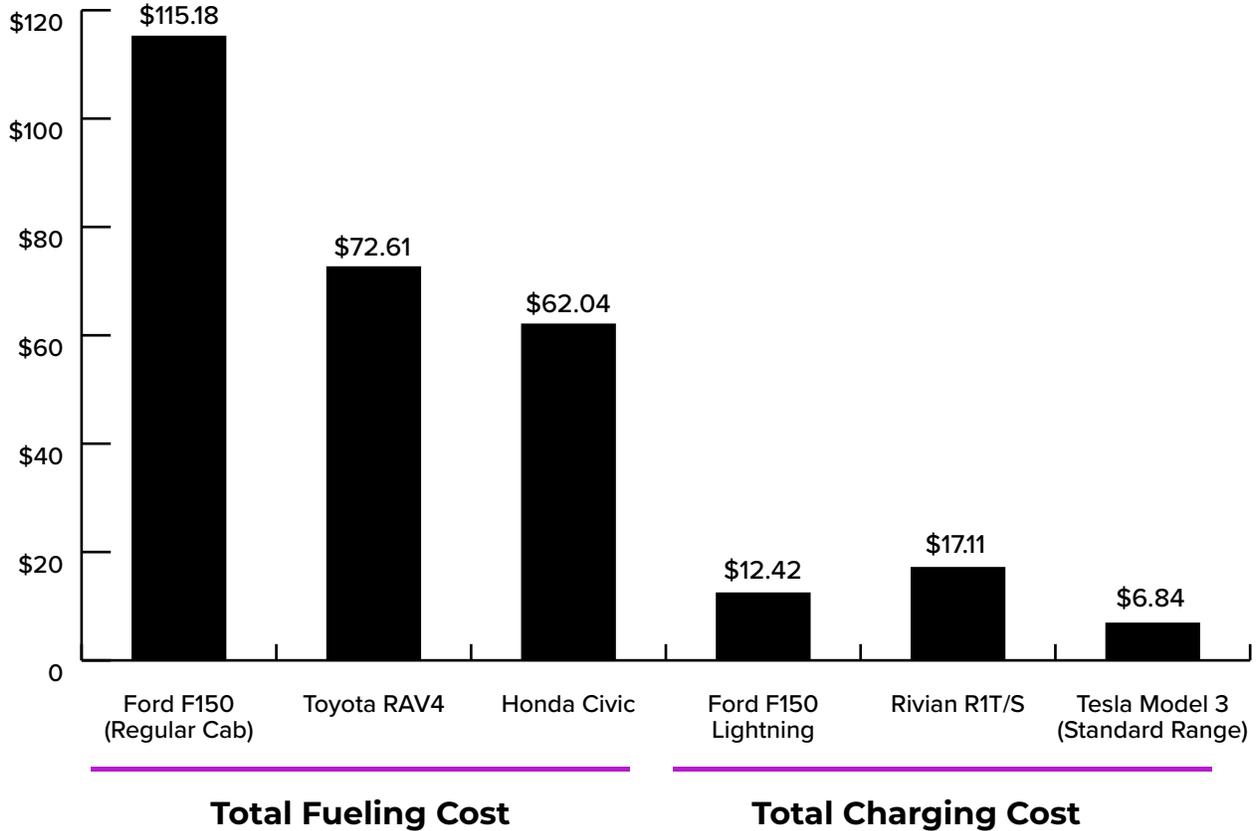
(As of June 3, 2022)

\$5.008

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1268





Avg. Energy Price per Gallon of Gasoline

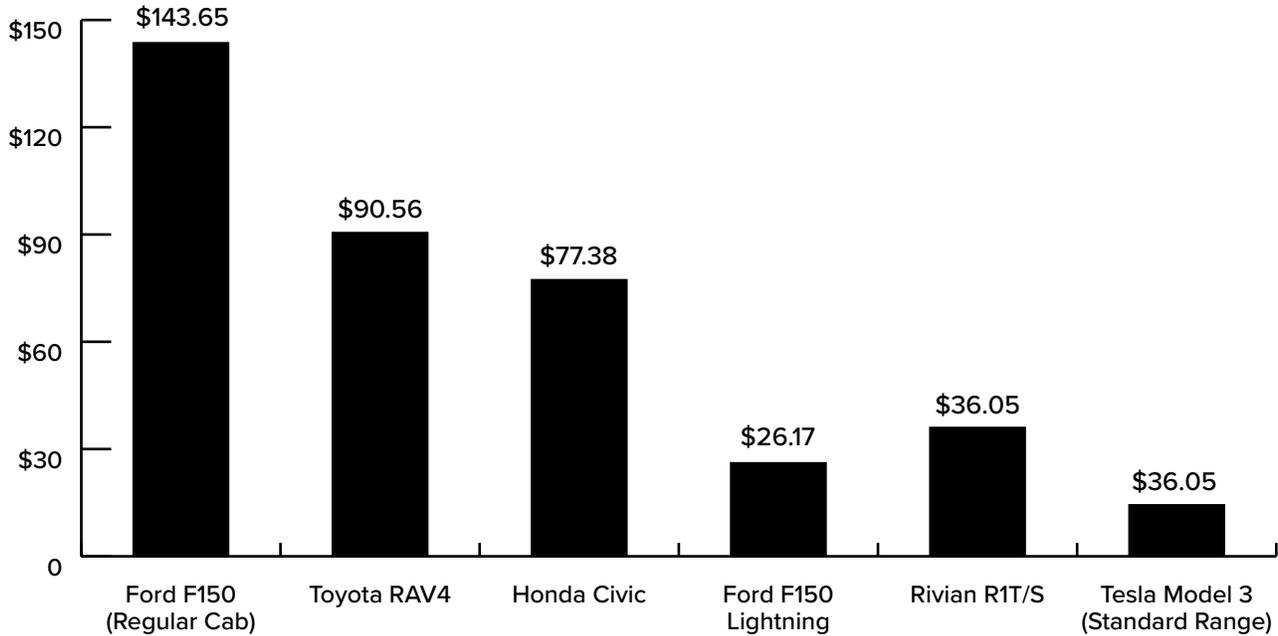
(As of June 3, 2022)

\$6.246

Avg. Energy Price per Kilowatt-hour of Electricity

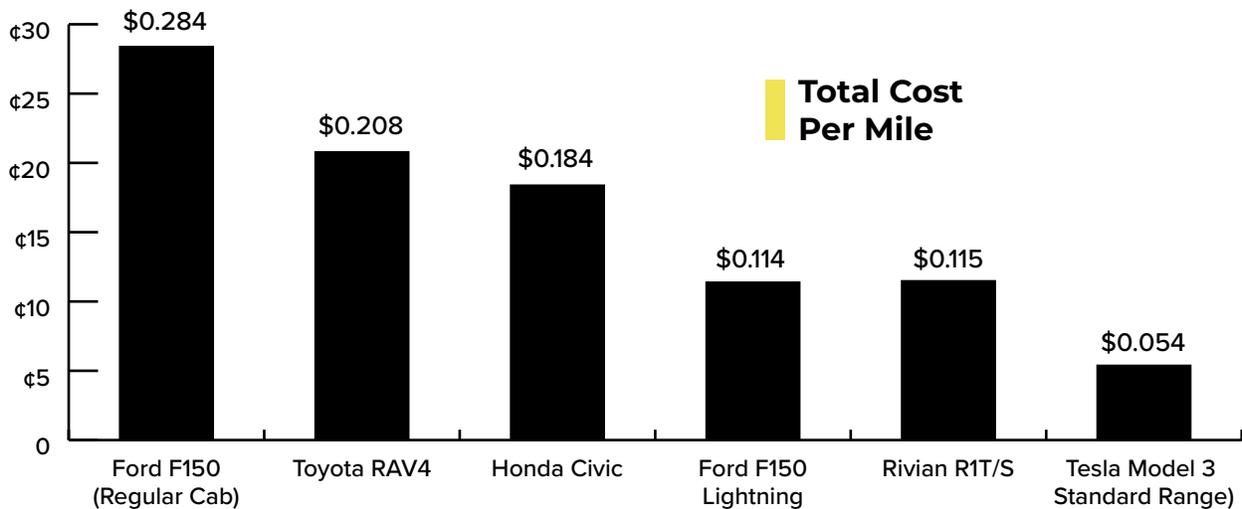
(As of March 2022)

\$0.2671



Total Fueling Cost

Total Charging Cost



Colorado

Avg. Energy Price per Gallon of Gasoline

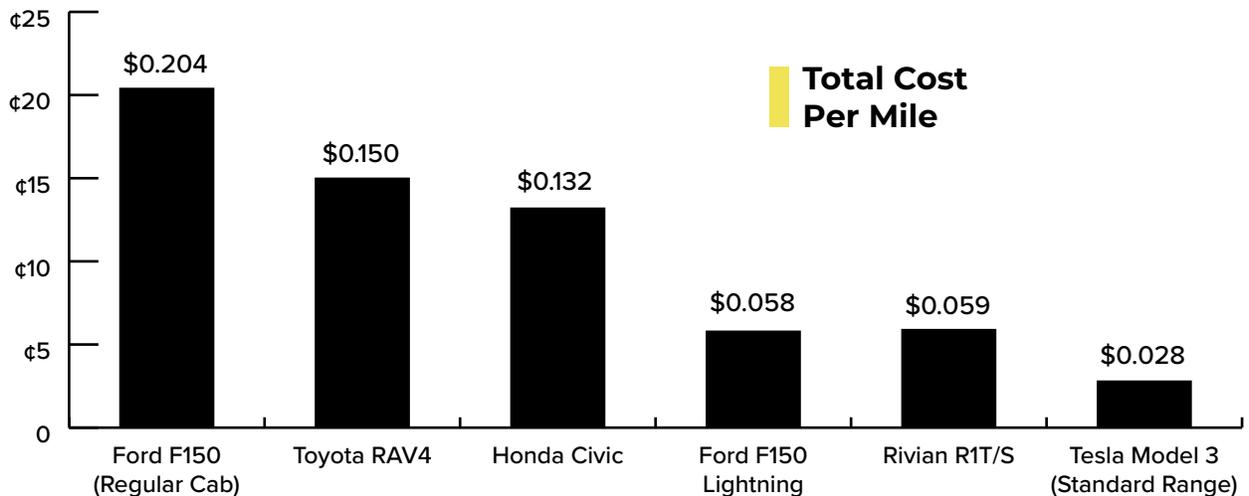
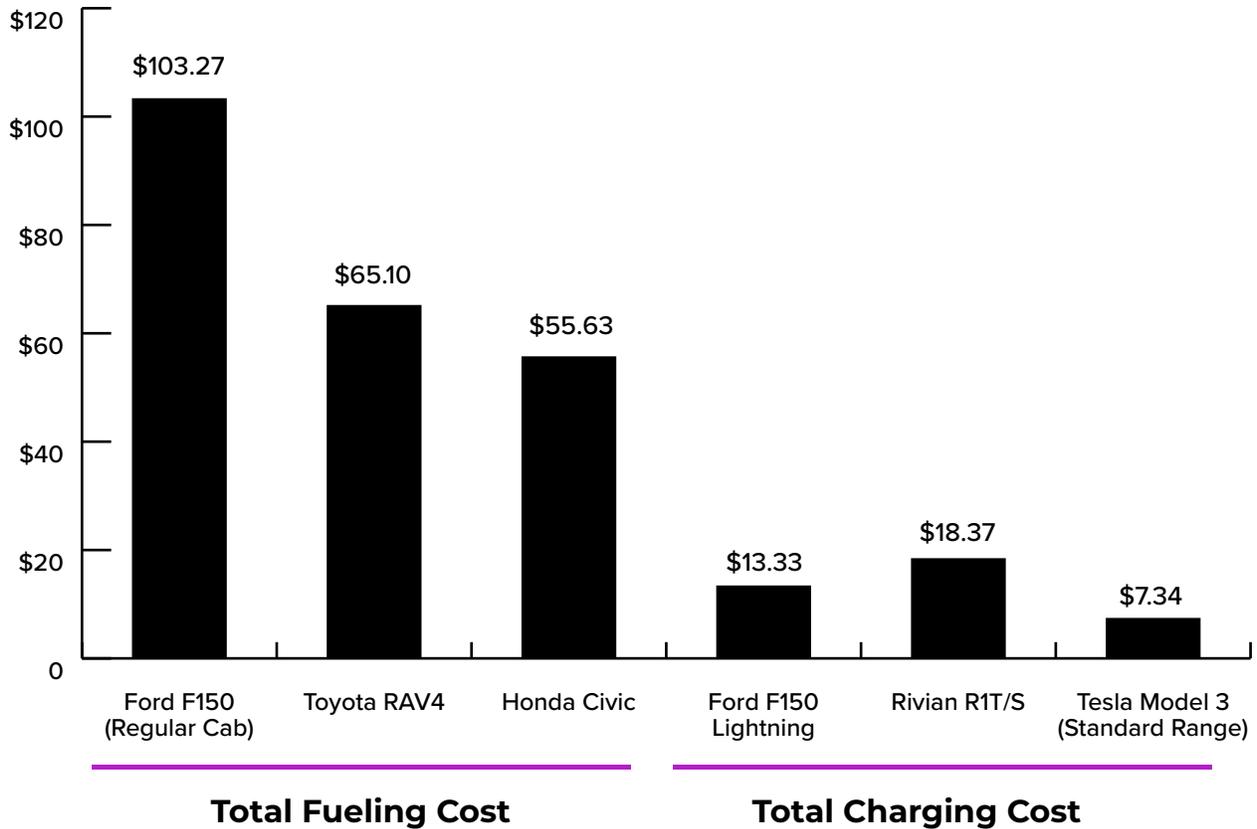
(As of June 3, 2022)

\$4.490

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1361





Florida

Avg. Energy Price per Gallon of Gasoline

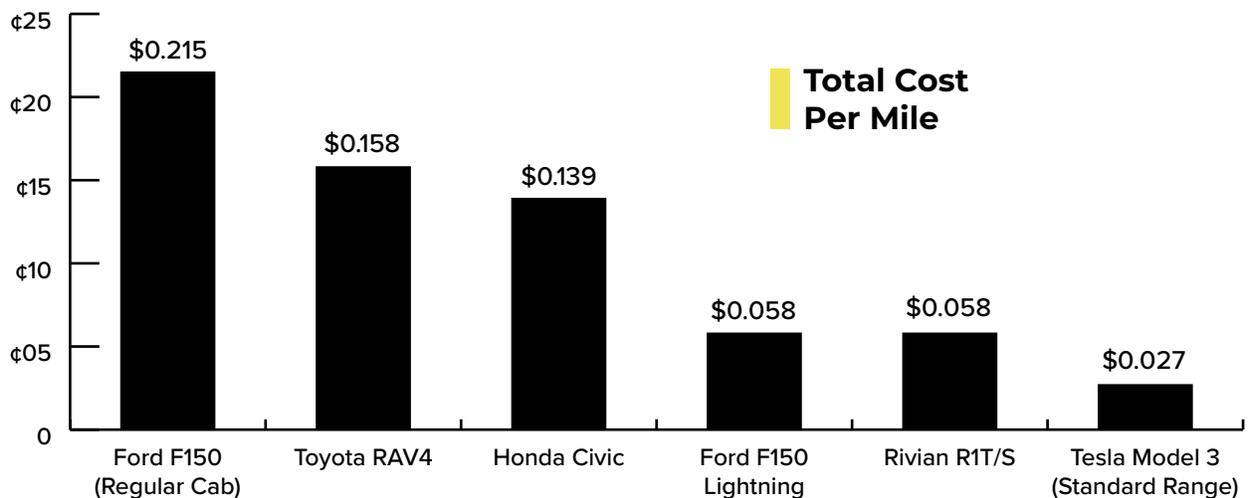
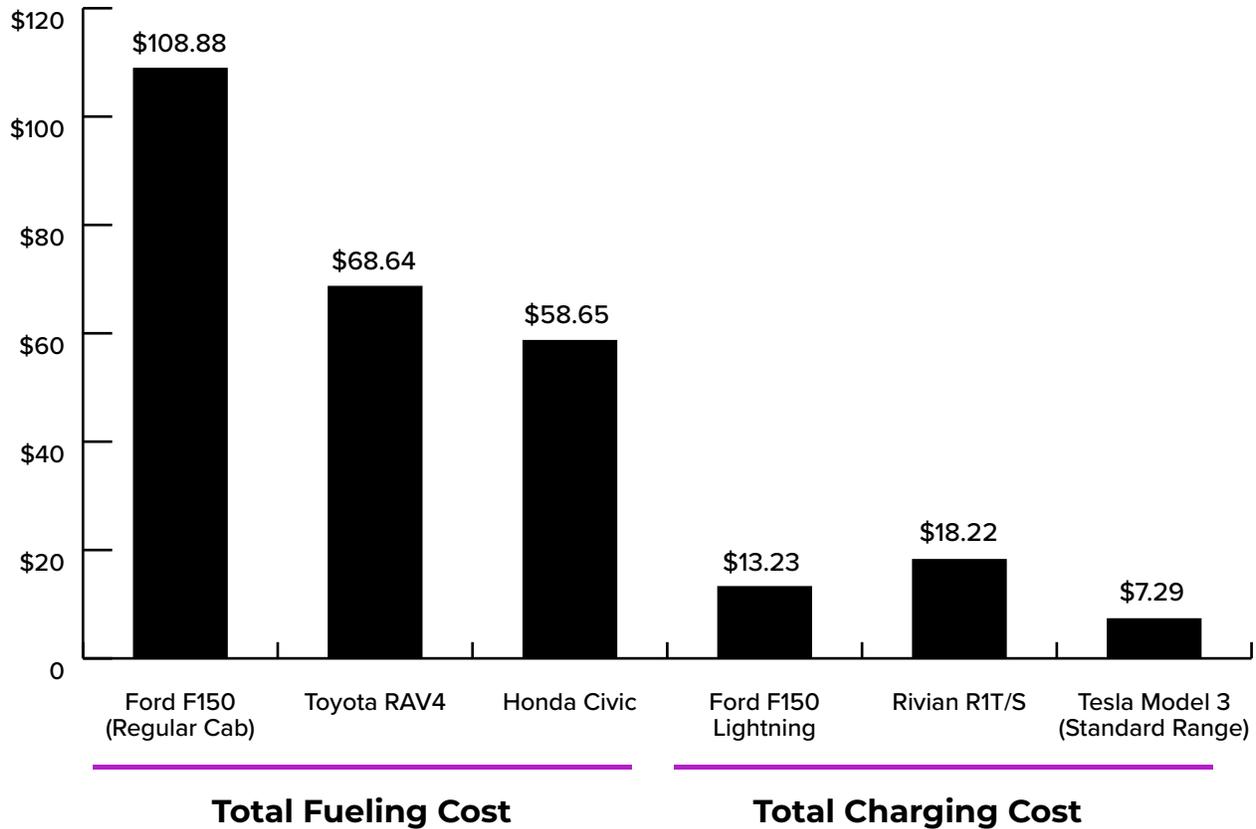
(As of June 3, 2022)

\$4.734

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1350



Georgia

Avg. Energy Price per Gallon of Gasoline

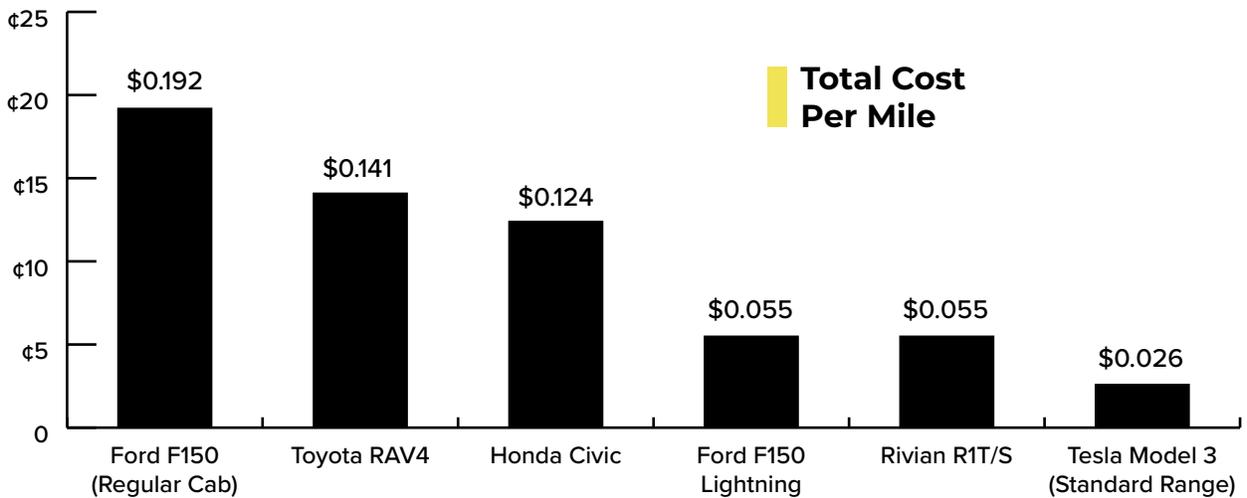
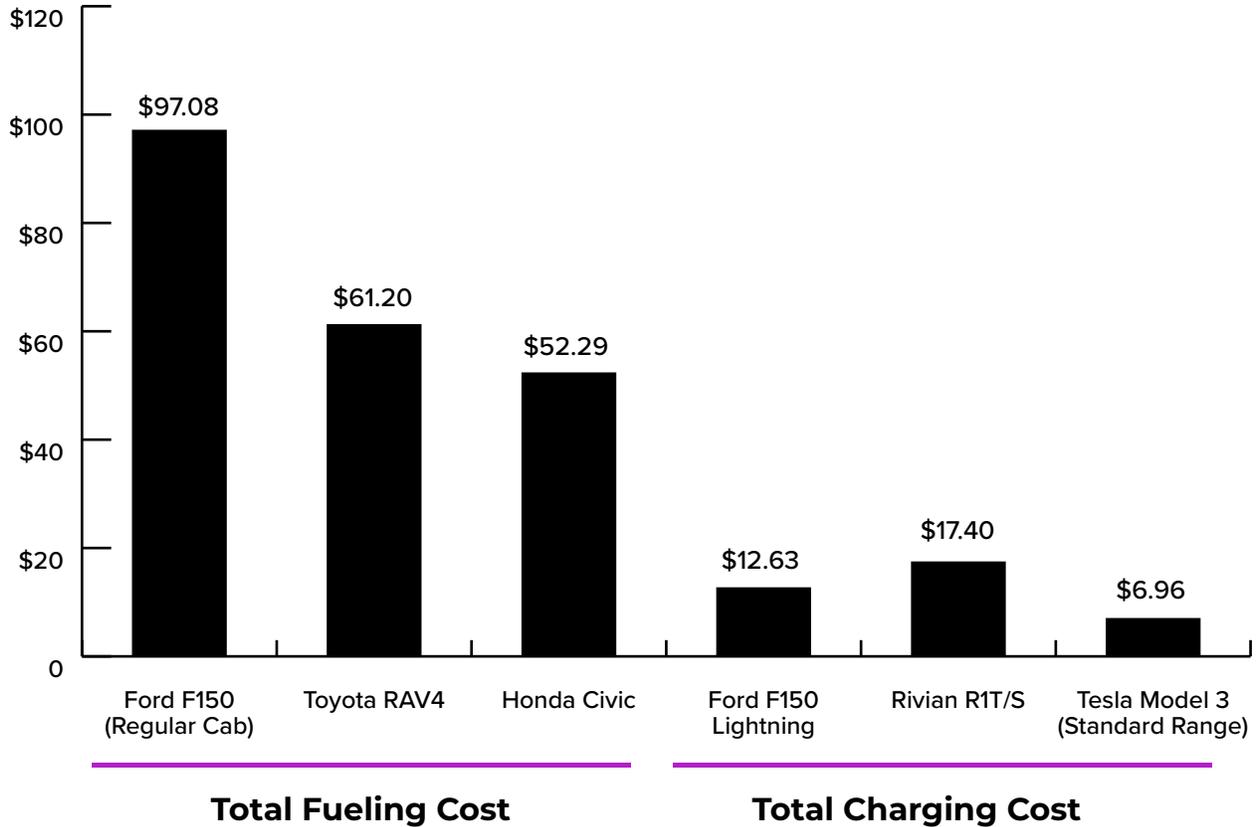
(As of June 3, 2022)

\$4.221

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1289





Michigan

Avg. Energy Price per Gallon of Gasoline

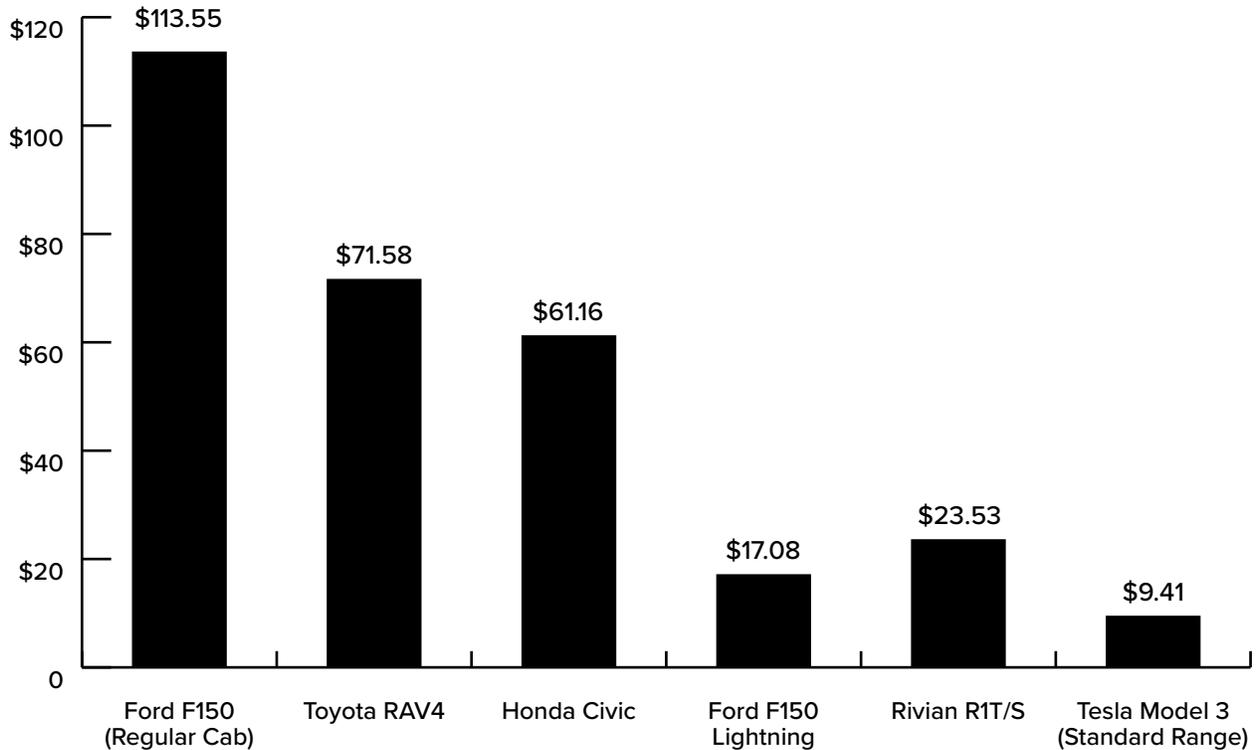
(As of June 3, 2022)

\$4.937

Avg. Energy Price per Kilowatt-hour of Electricity

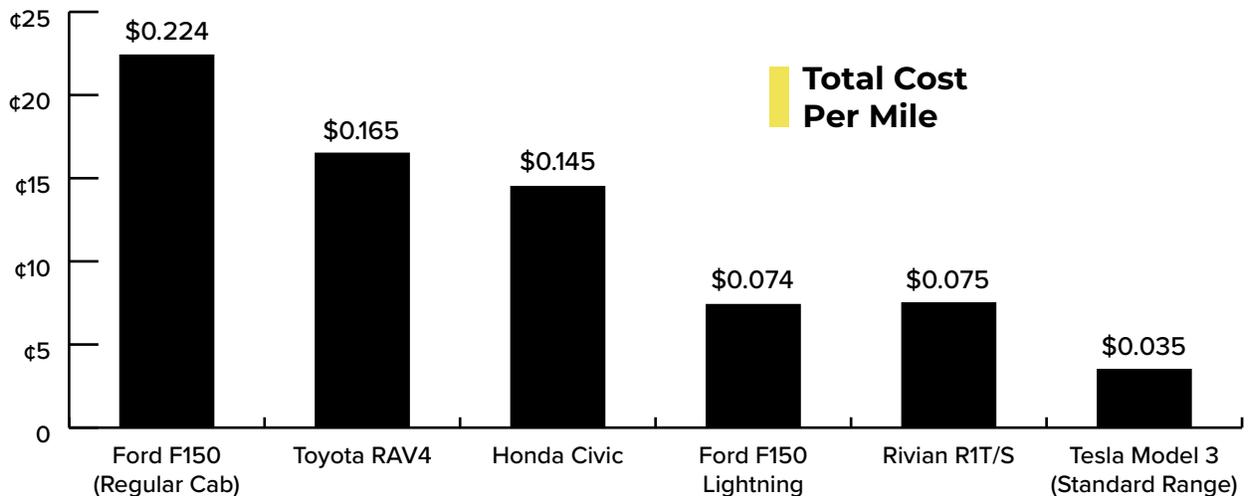
(As of March 2022)

\$0.1743



Total Fueling Cost

Total Charging Cost





New Jersey

Avg. Energy Price per Gallon of Gasoline

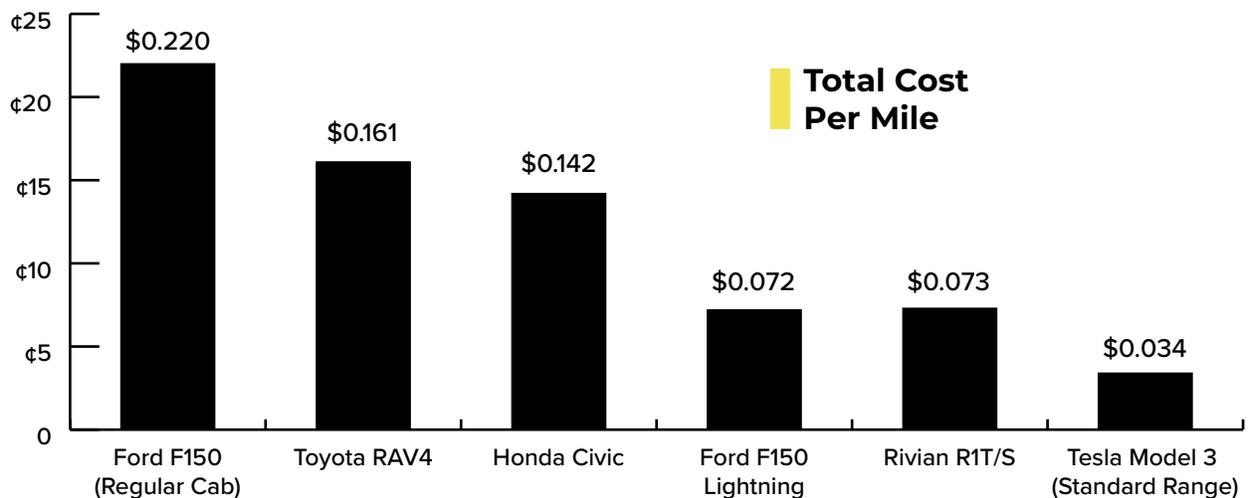
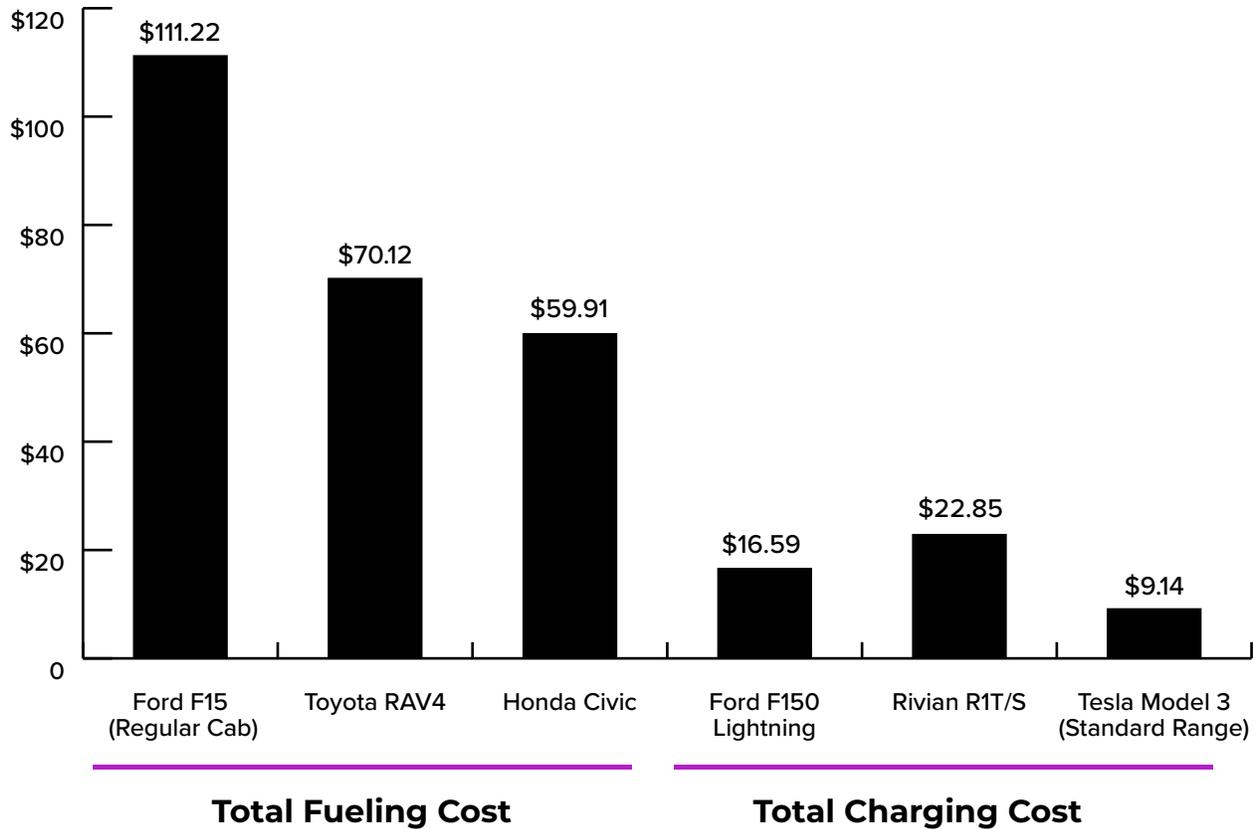
(As of June 3, 2022)

\$4.836

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1693

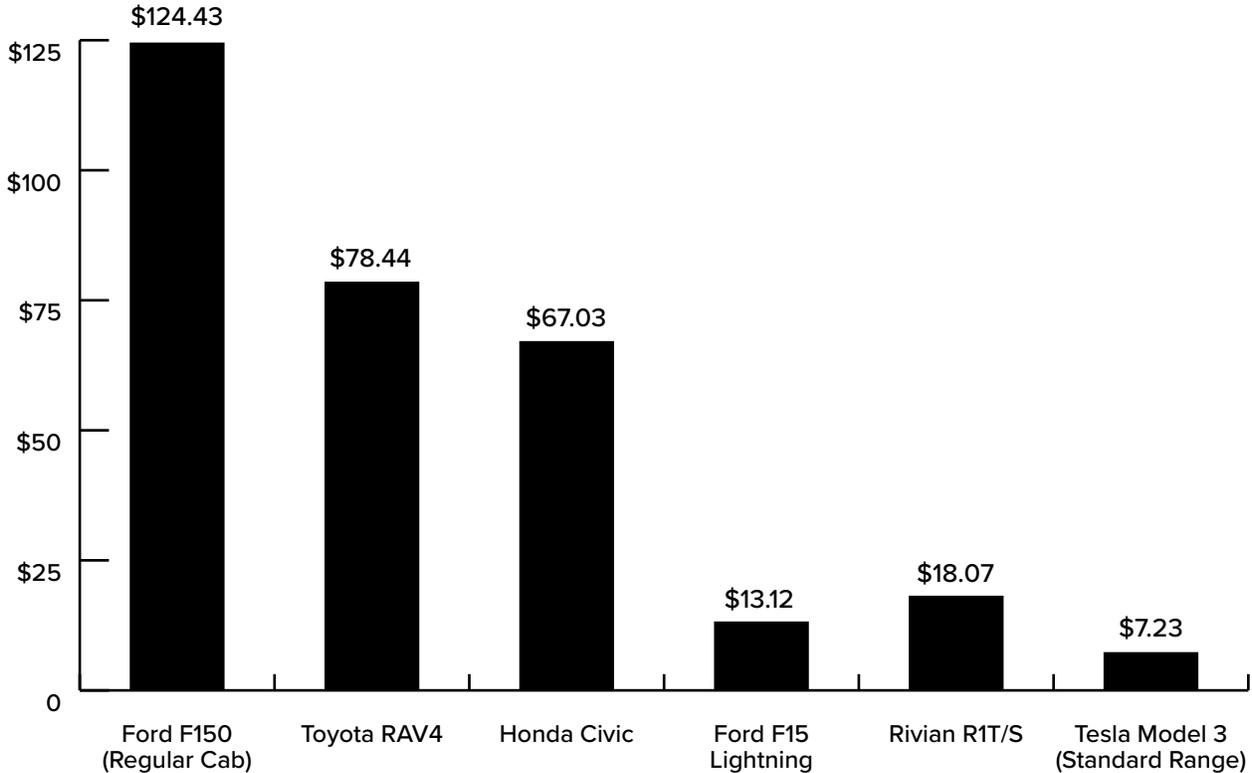


Nevada

Avg. Energy Price per Gallon of Gasoline

(As of June 3, 2022)

\$5.410



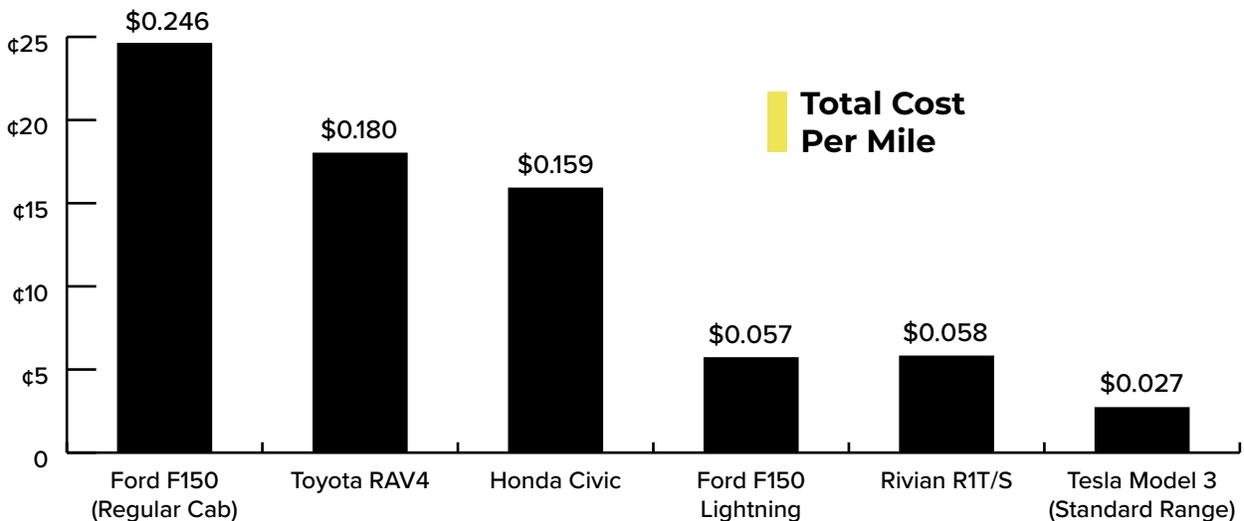
Total Fueling Cost

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1339

Total Charging Cost



New Mexico

Avg. Energy Price per Gallon of Gasoline

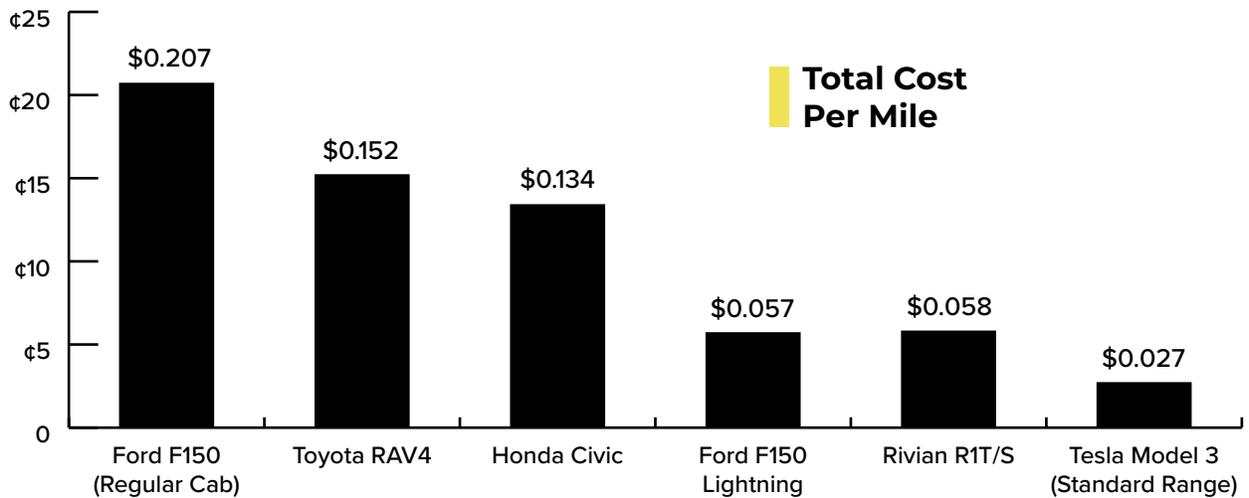
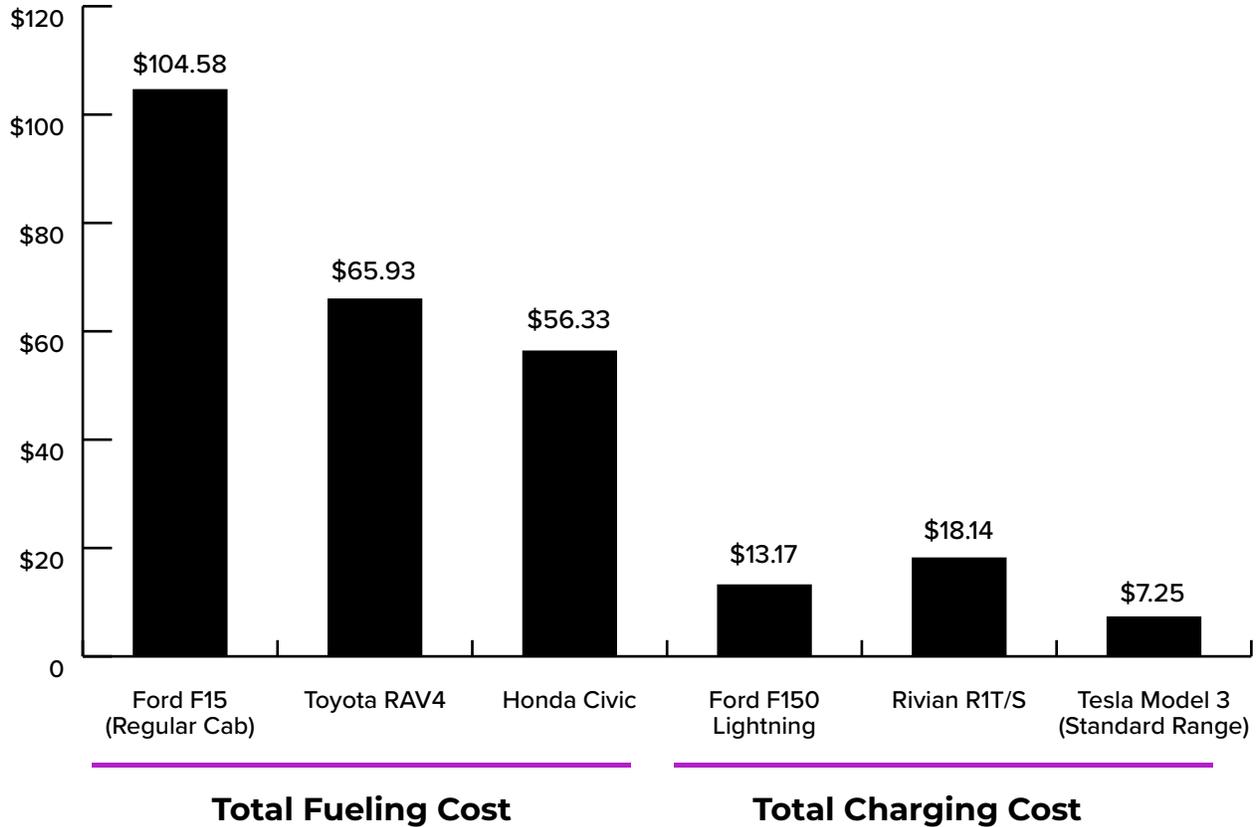
(As of June 3, 2022)

\$4.547

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1344





North Carolina

Avg. Energy Price per Gallon of Gasoline

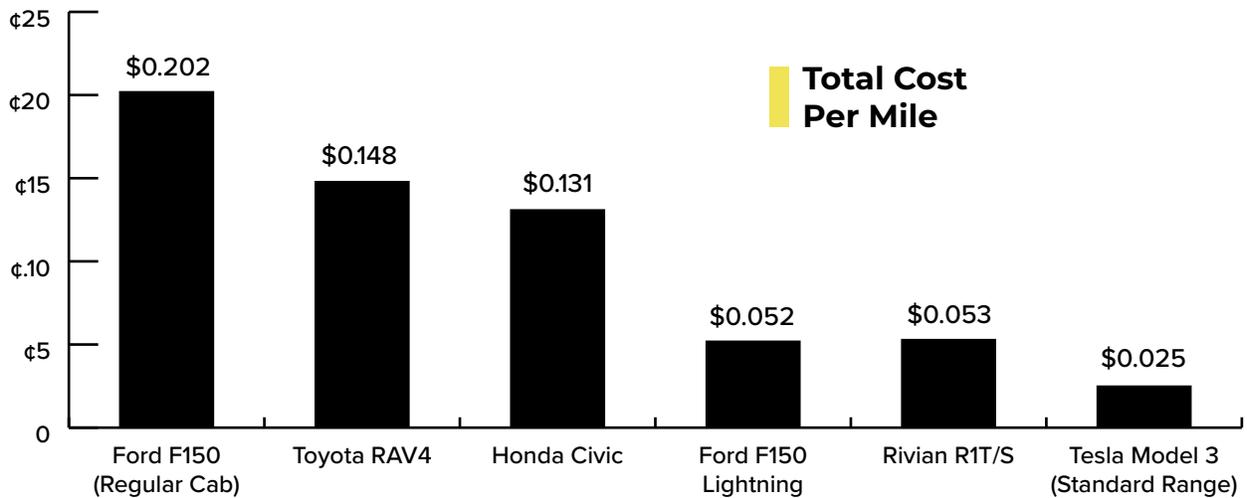
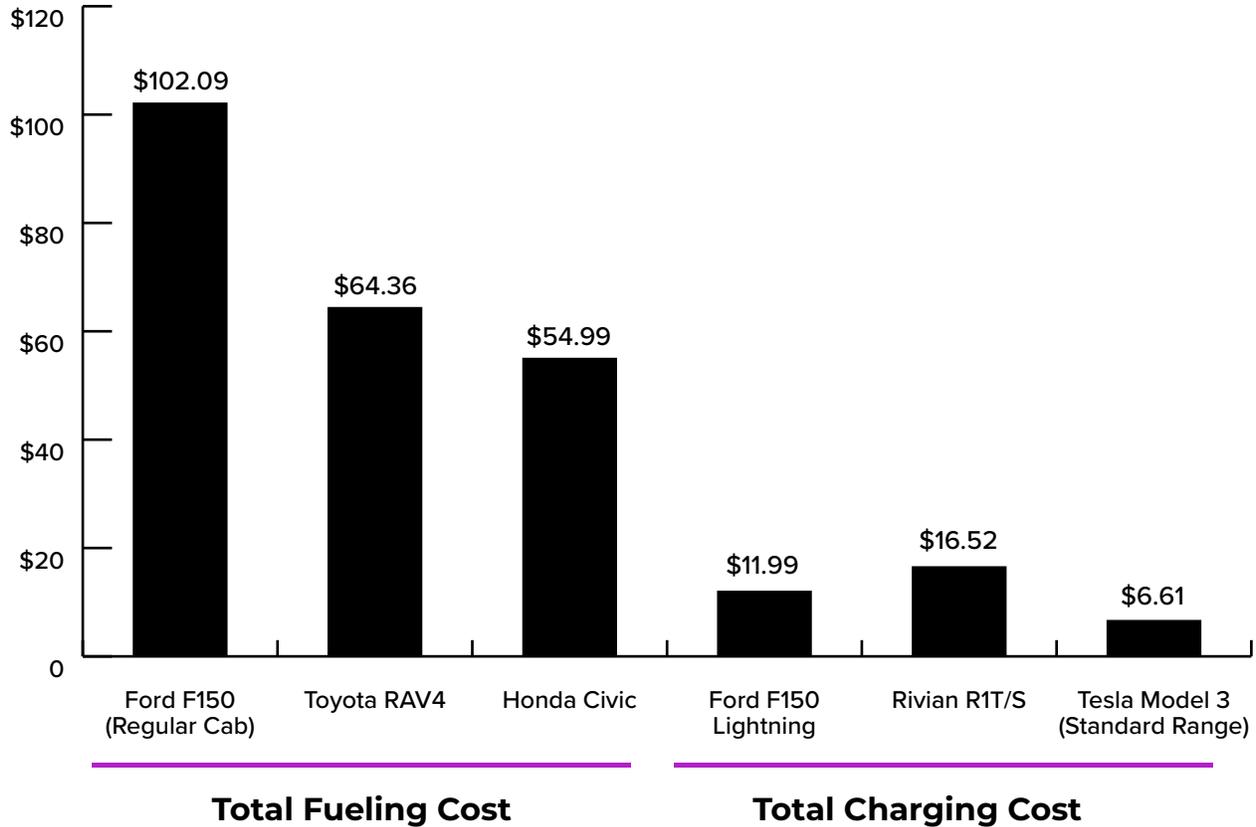
(As of June 3, 2022)

\$4.439

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1224





Avg. Energy Price per Gallon of Gasoline

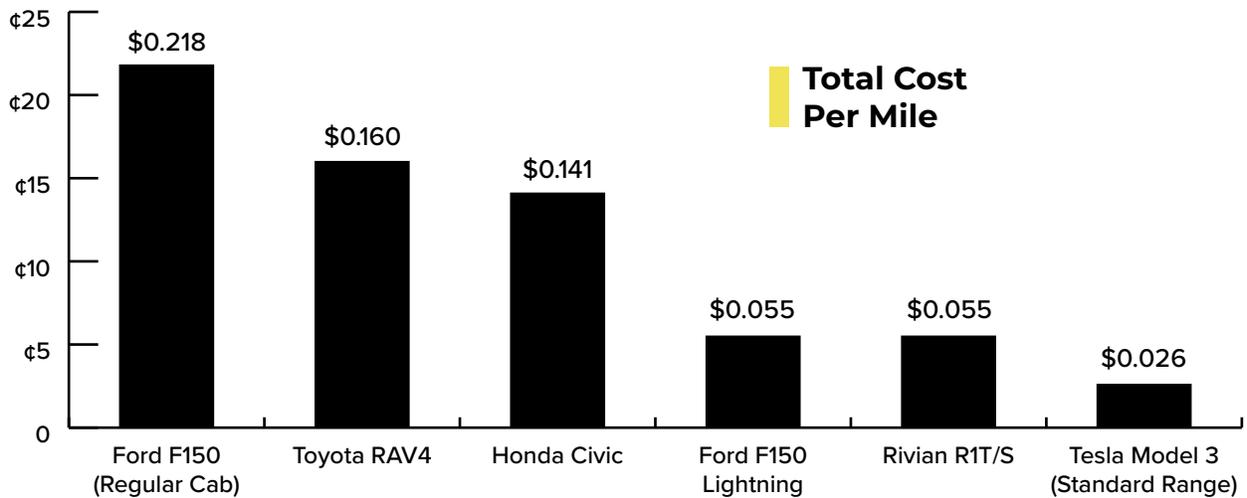
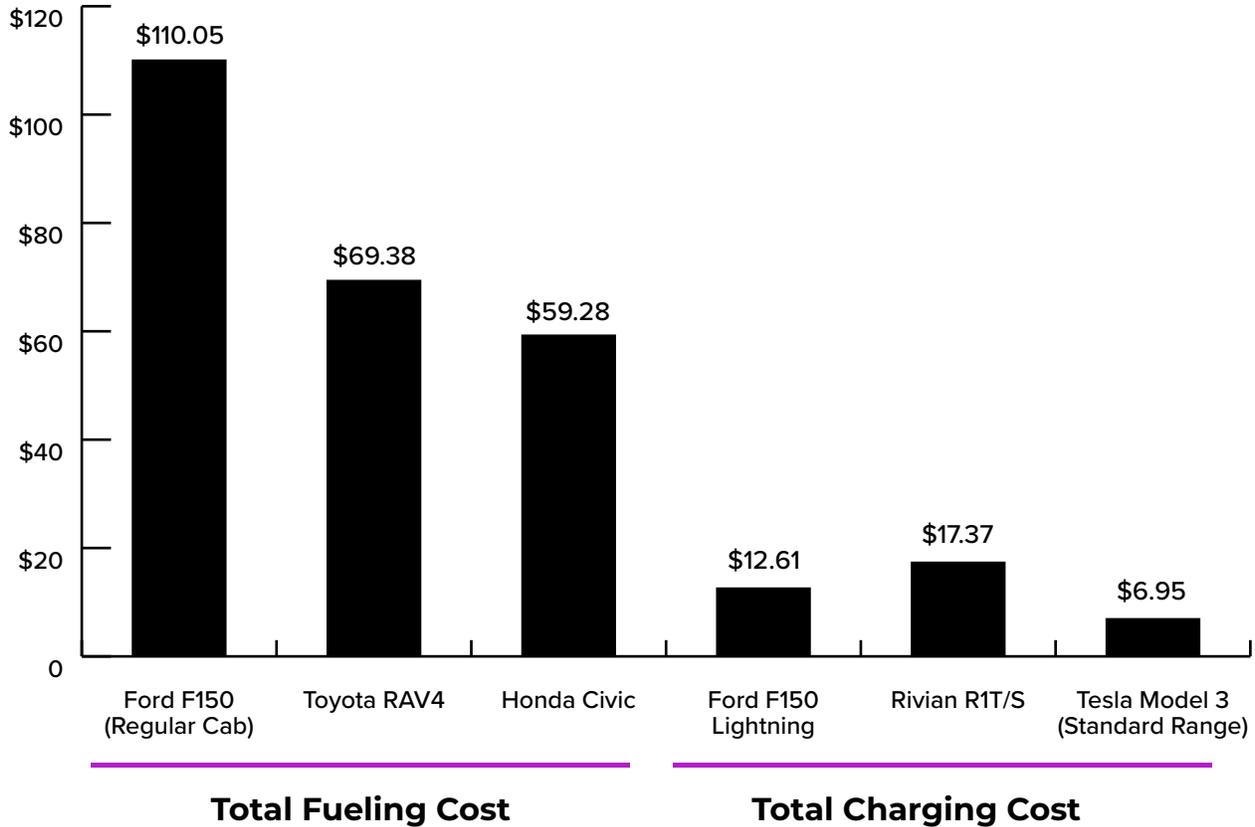
(As of June 3, 2022)

\$4.785

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1287



Pennsylvania

Avg. Energy Price per Gallon of Gasoline

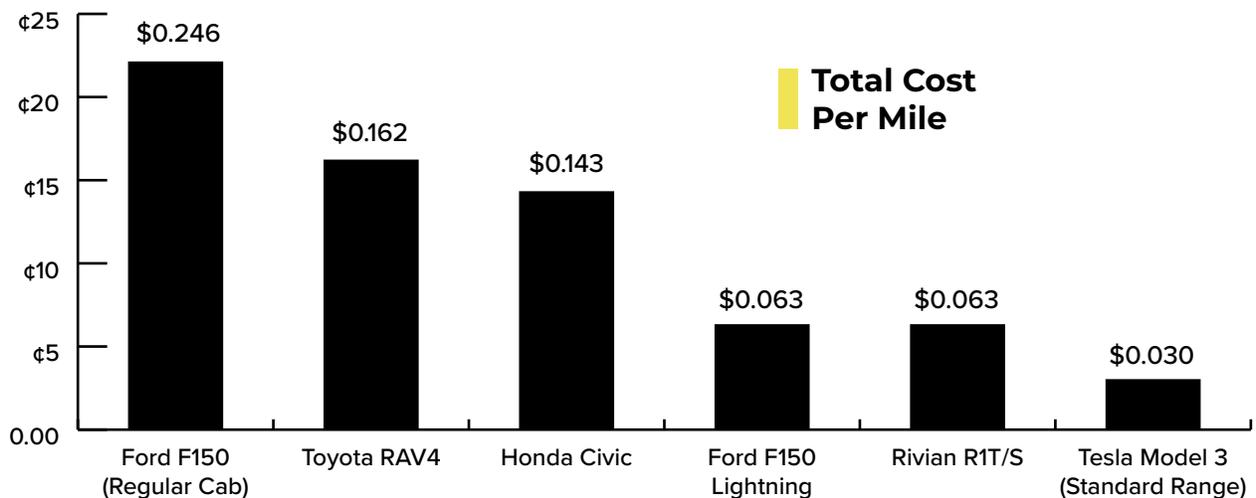
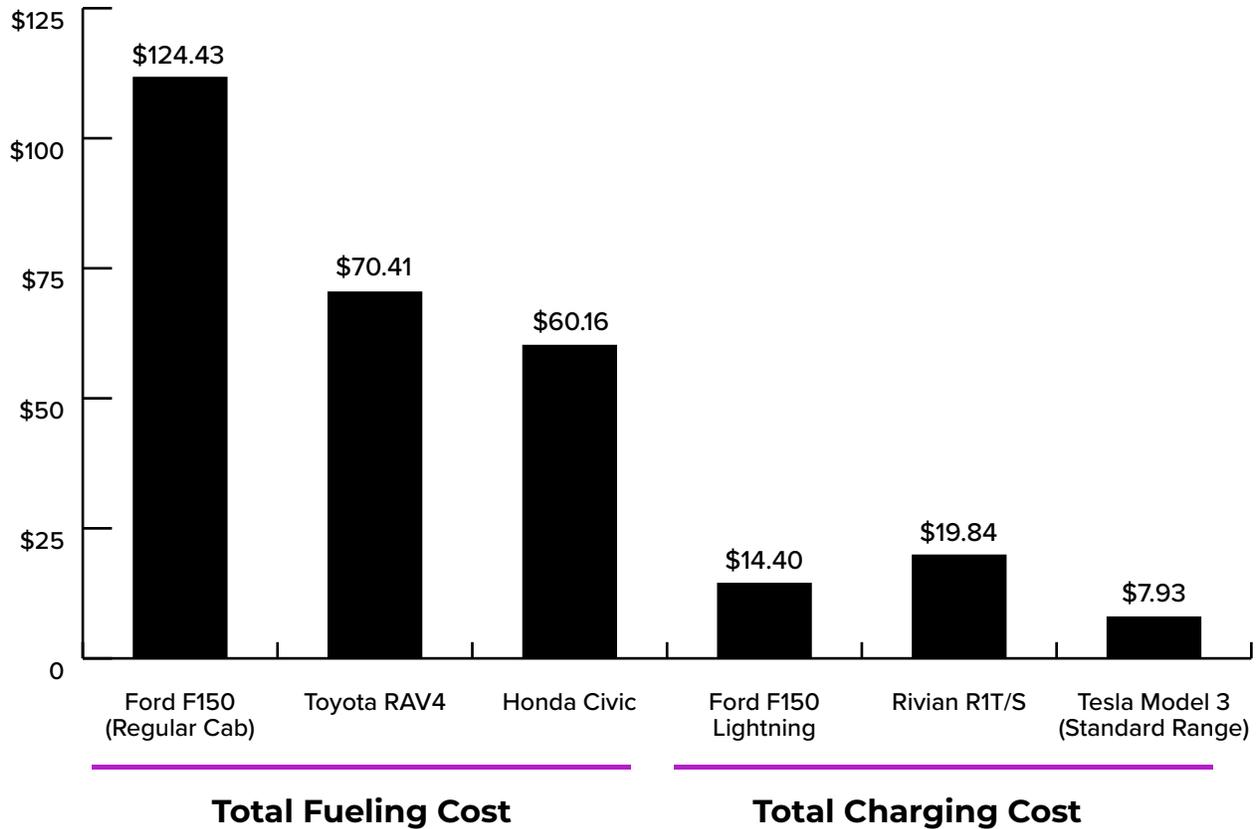
(As of June 3, 2022)

\$4.856

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1470





Tennessee

Avg. Energy Price per Gallon of Gasoline

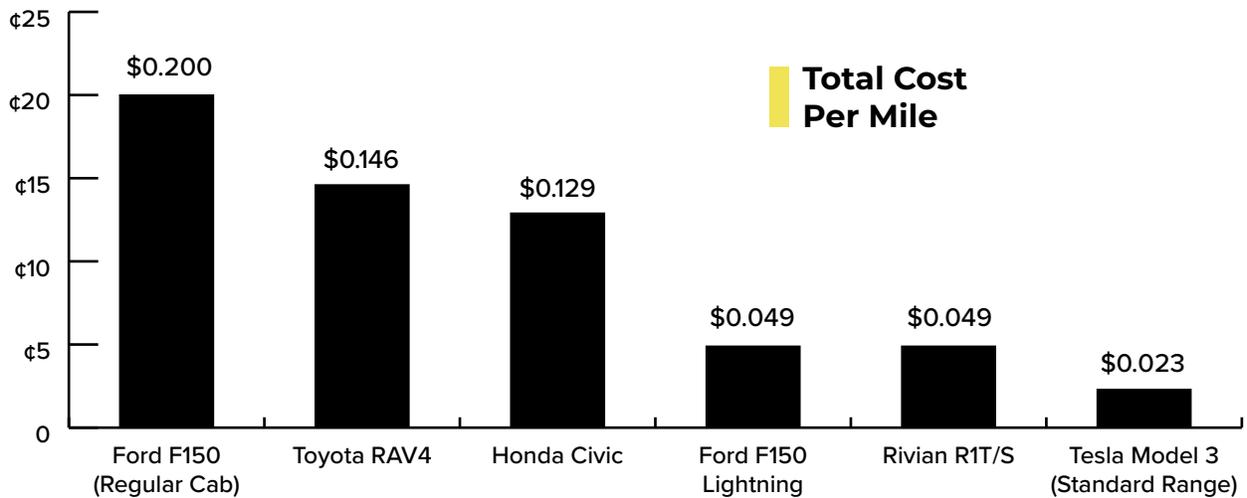
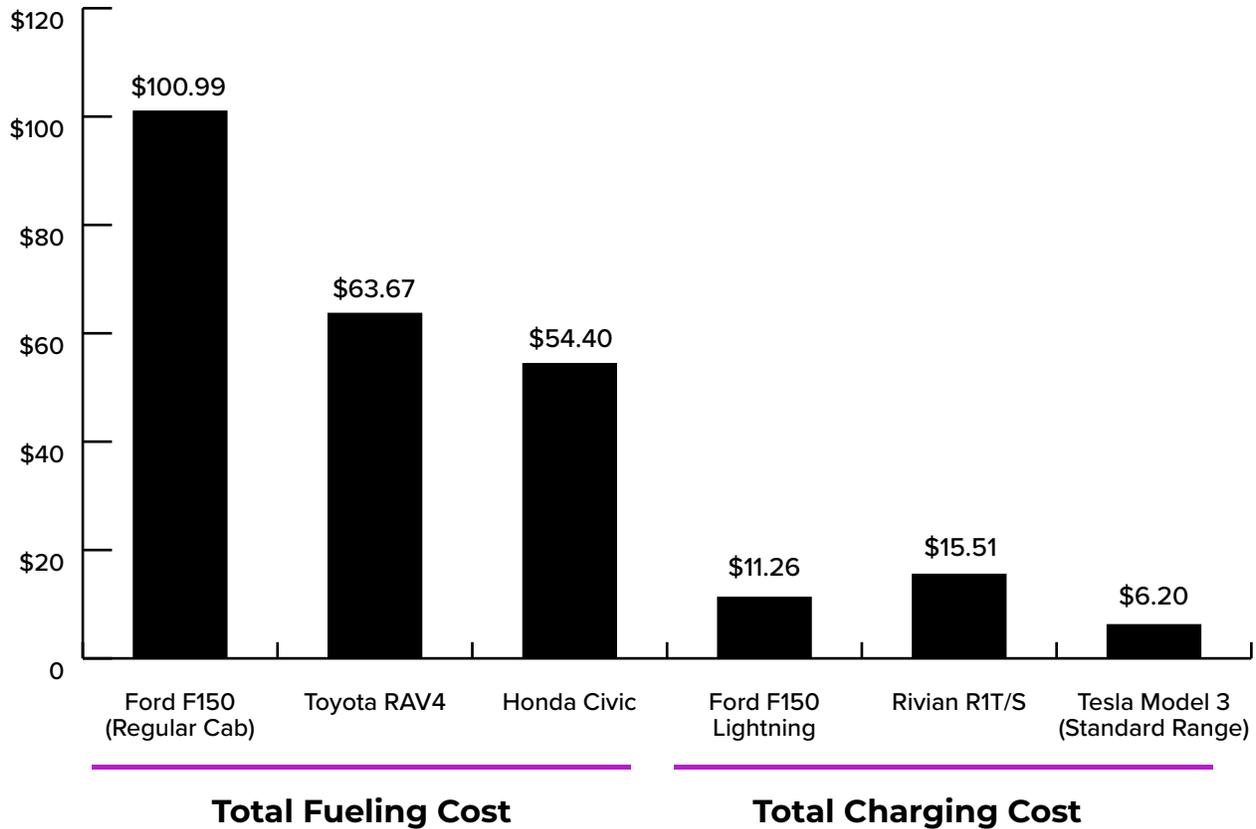
(As of June 3, 2022)

\$4.391

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1149





Texas

Avg. Energy Price per Gallon of Gasoline

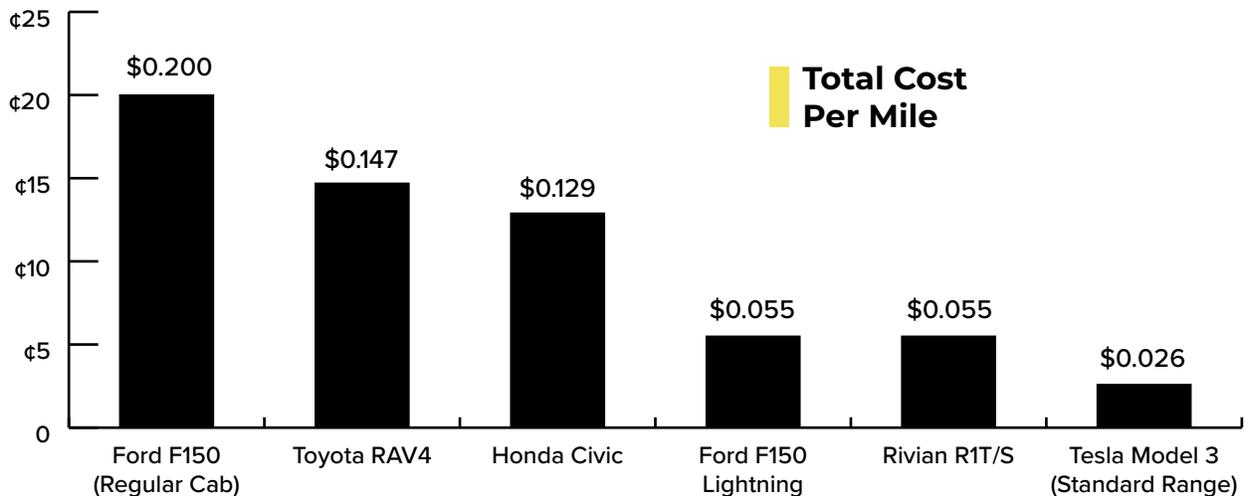
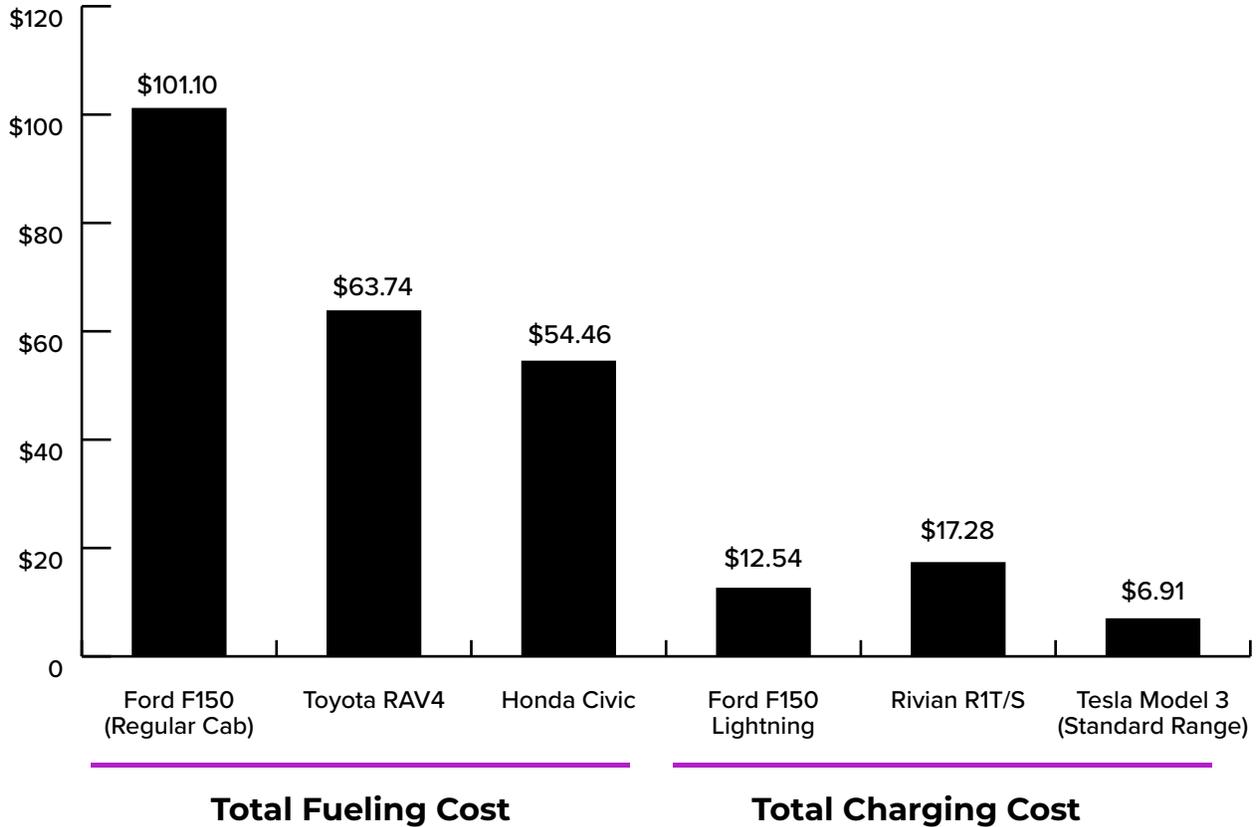
(As of June 3, 2022)

\$4.396

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1280





Avg. Energy Price per Gallon of Gasoline

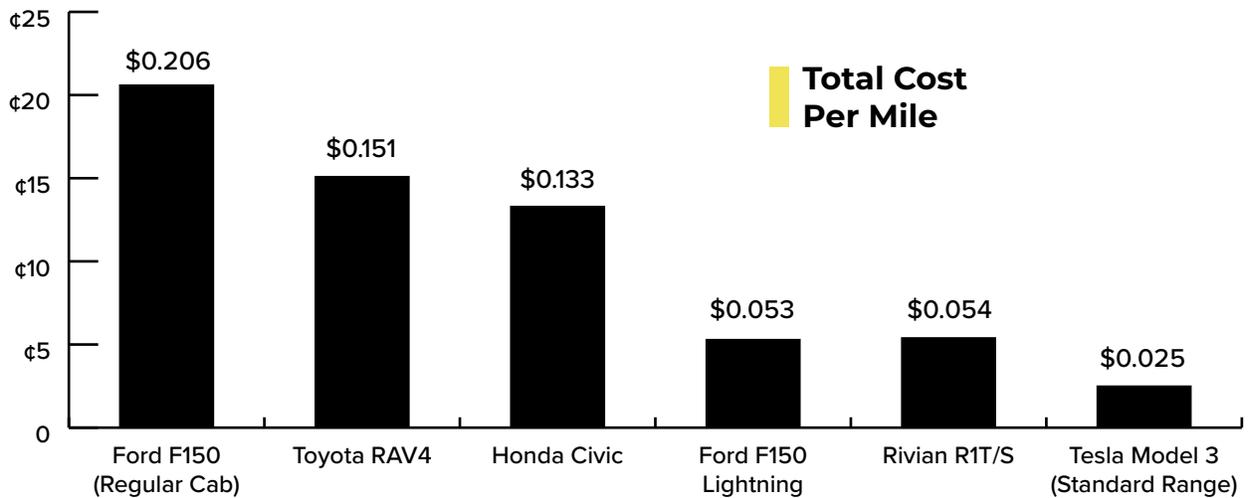
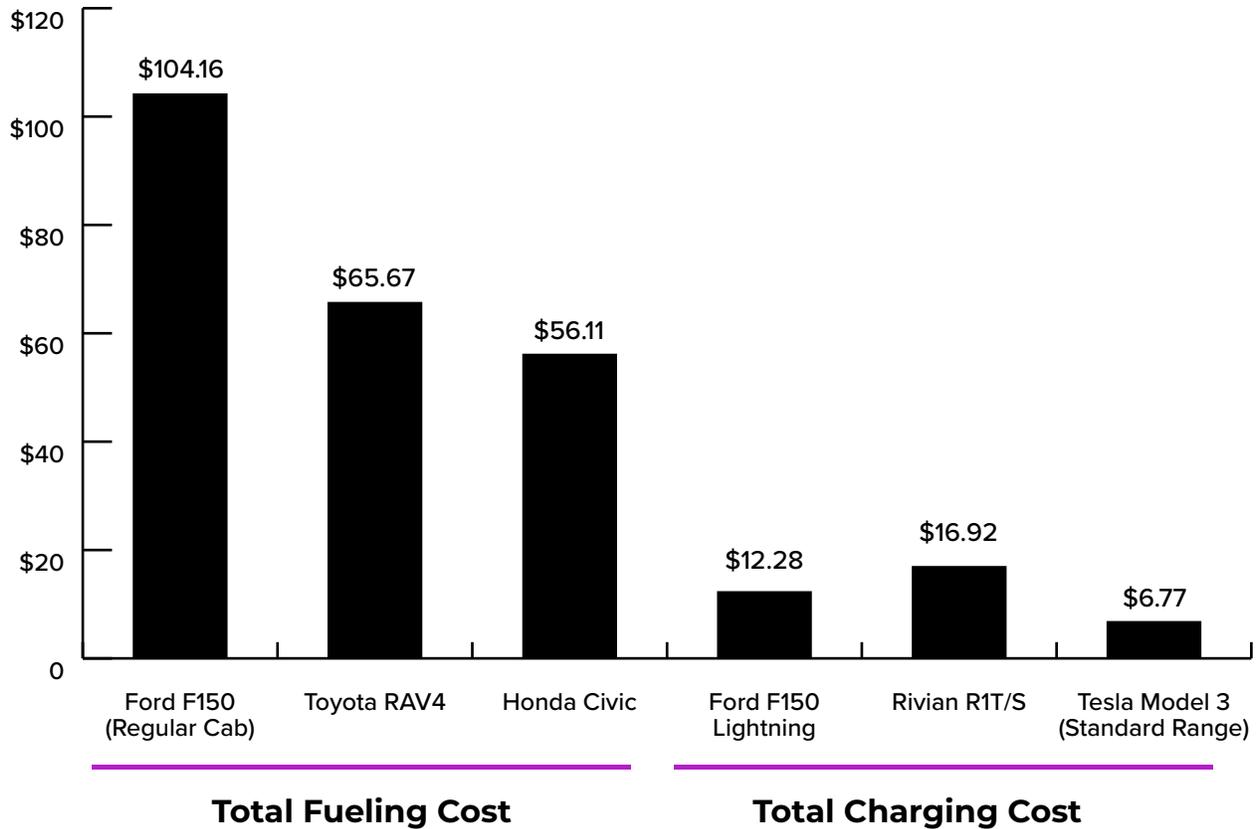
(As of June 3, 2022)

\$4.529

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1254





West Virginia

Avg. Energy Price per Gallon of Gasoline

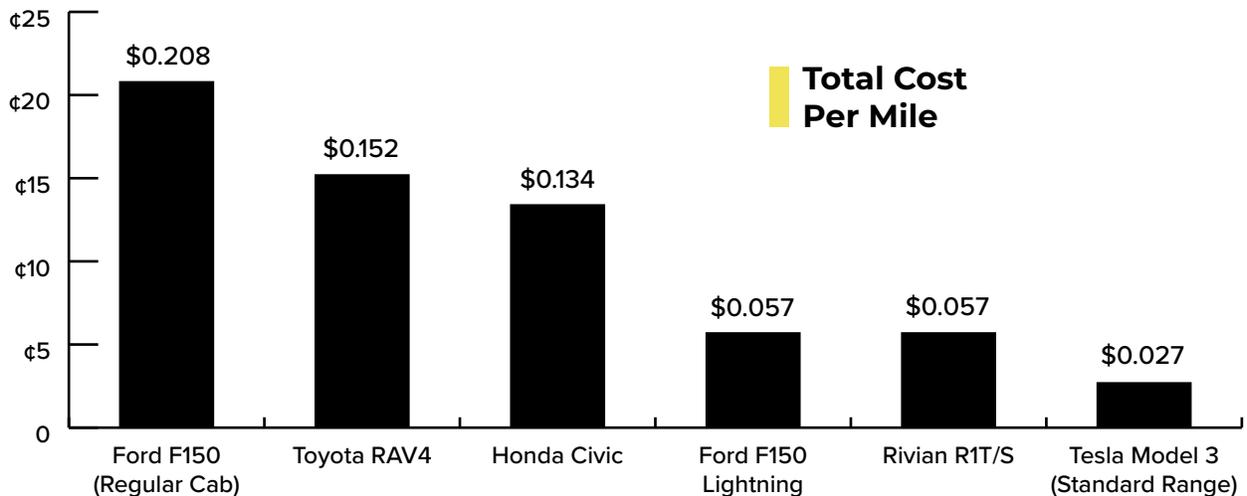
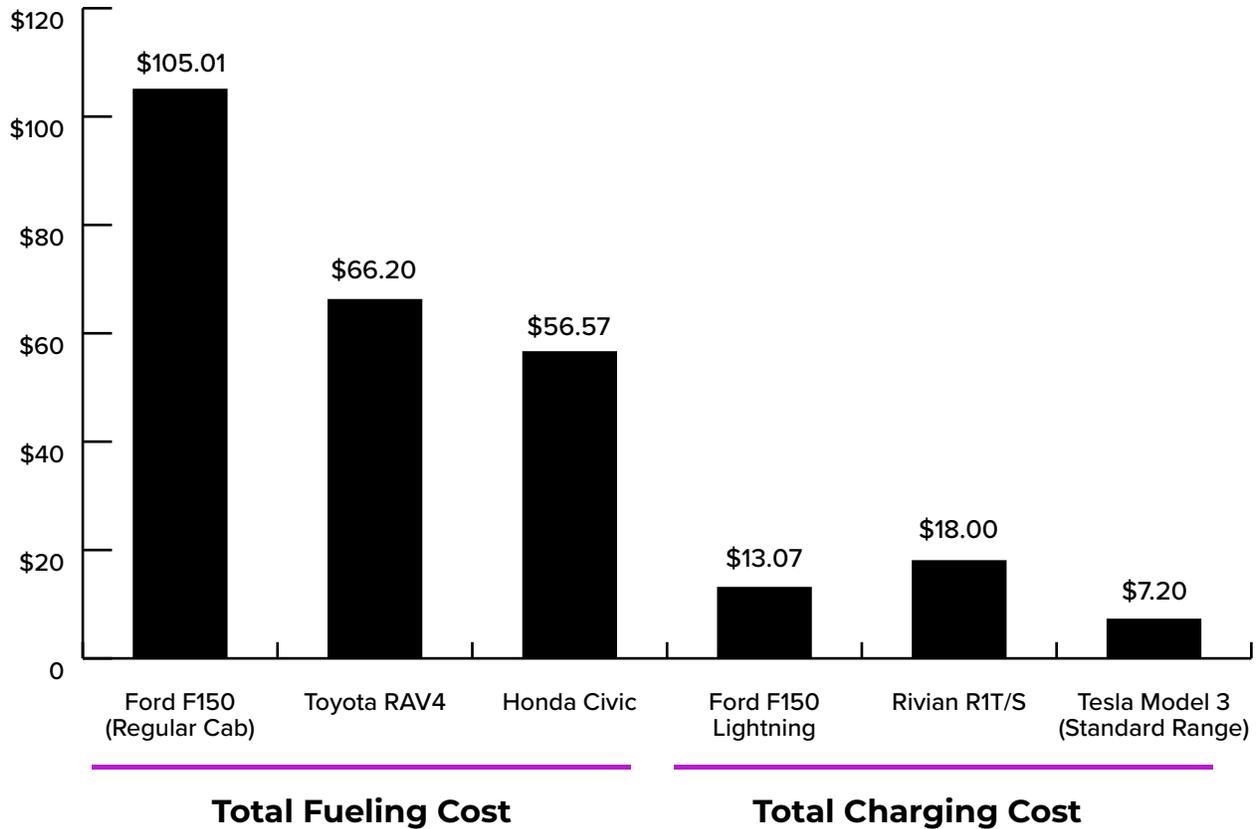
(As of June 3, 2022)

\$4.566

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1334





Avg. Energy Price per Gallon of Gasoline

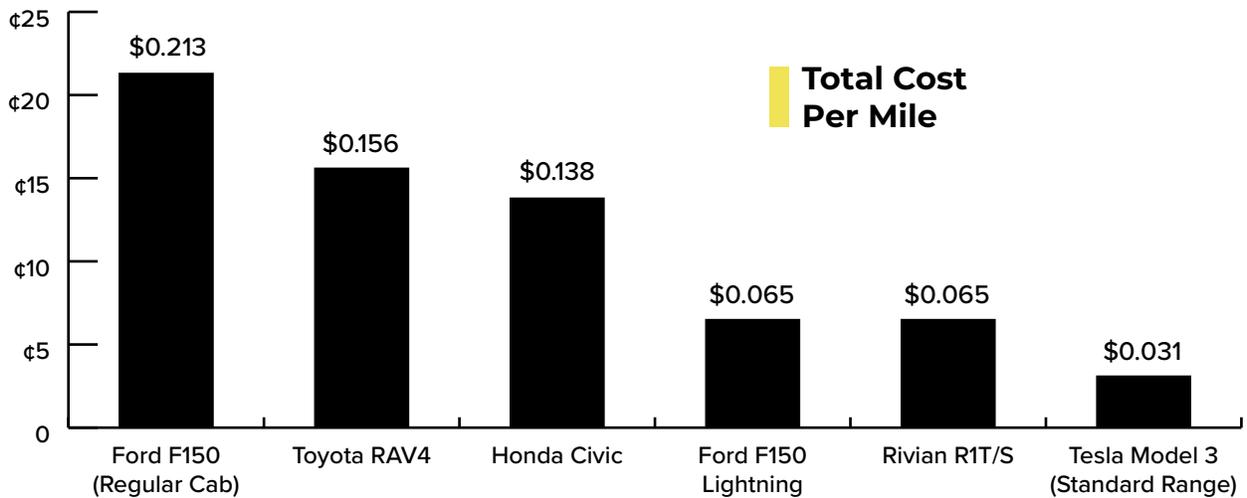
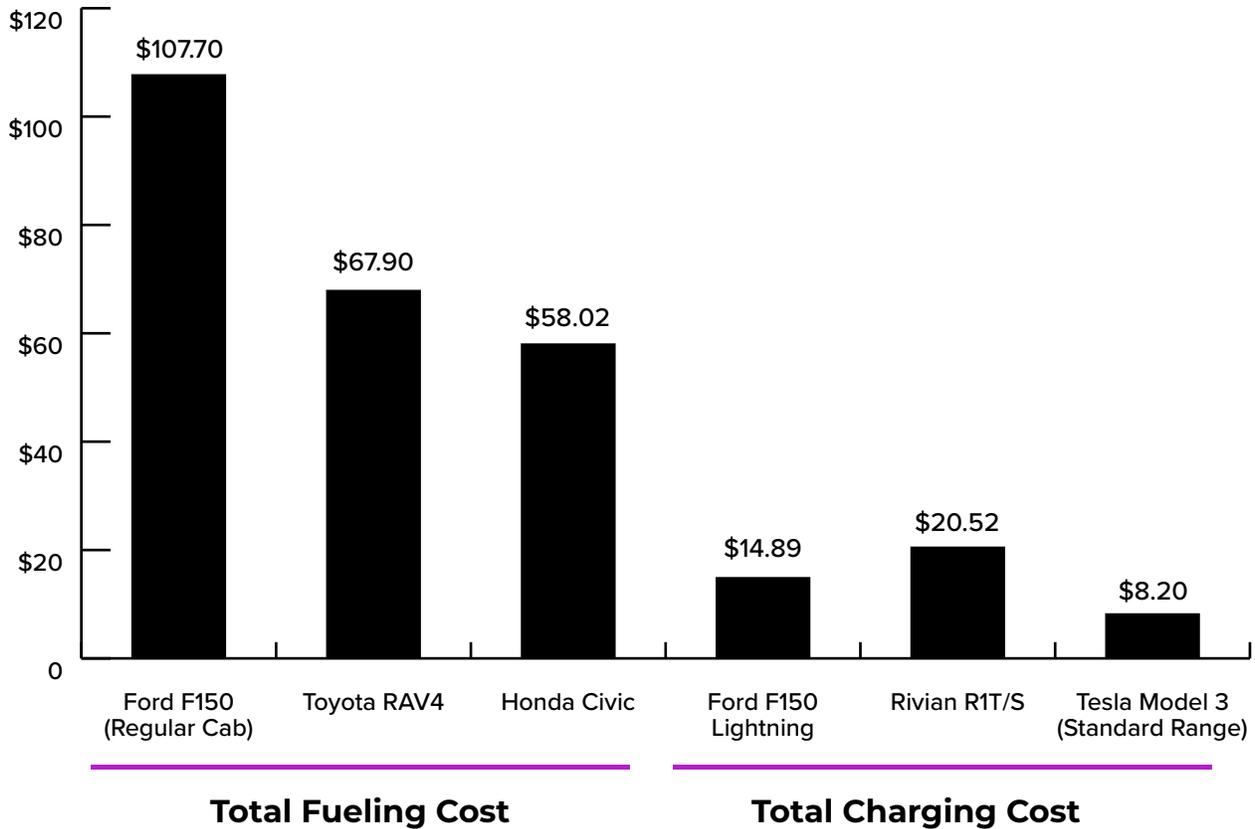
(As of June 3, 2022)

\$4.683

Avg. Energy Price per Kilowatt-hour of Electricity

(As of March 2022)

\$0.1520



■ Sources and Info

*Gasoline prices are based on June 2022 data, and residential end-use sector electricity prices are based on March 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 June 3, 2022: <https://gasprices.aaa.com/>

Electricity Prices in Residential End-Use Sector in March 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.