Determinants of Truck Rates in the U.S.

Hanouf Alhunayshil, Jake Wagner, Eric Jessup

Washington State University

May 23, 2024

Introduction

- **Objective:** Understanding what drives truck rates.
- **Key Factors:** Operational cost, distance, supply and demand, and economic condition.
- **Data Sources:**
  - Bulkloads.com: Platform connects commodity transporters with shippers.
  - Federal Reserve Bank of St. Louis
  - Energy Information Administration
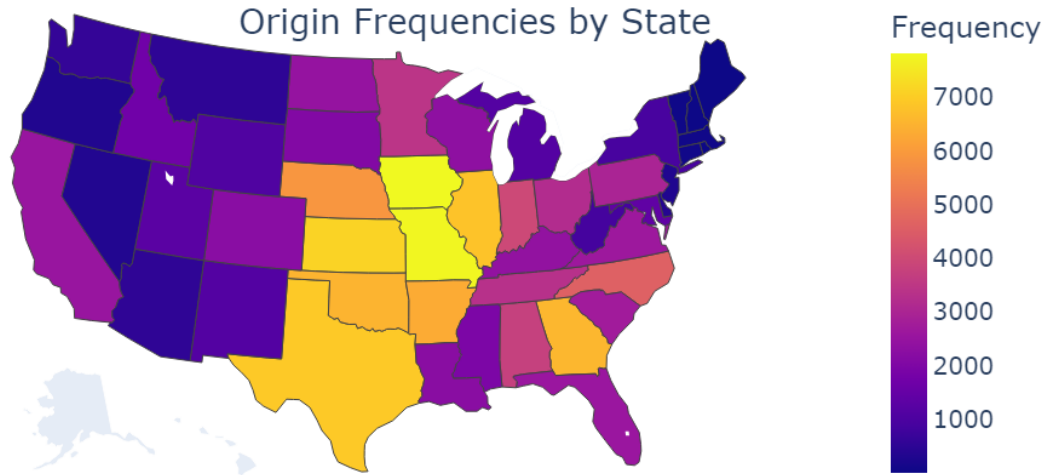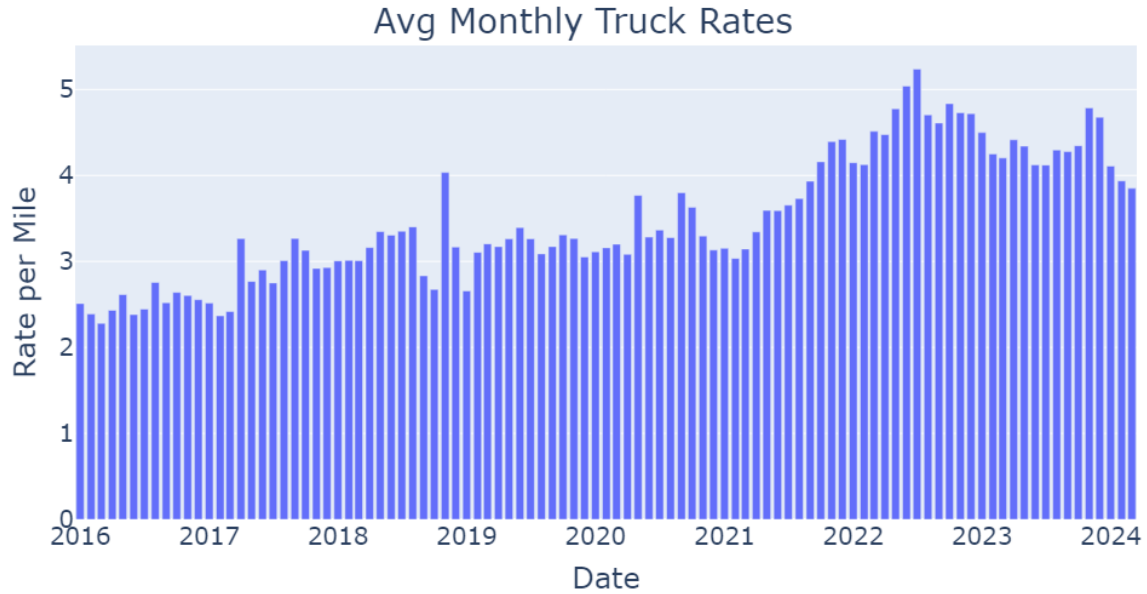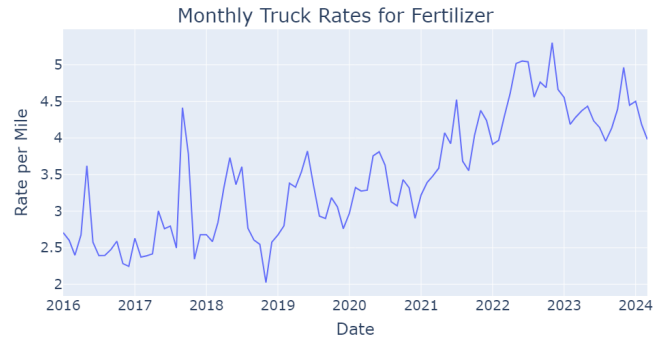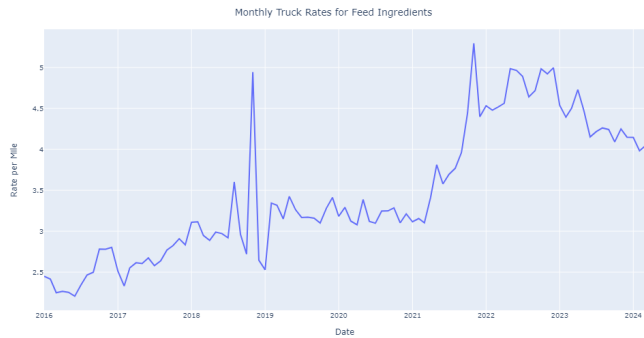
Truck Transportation

Figure 1: Accumulative Frequency from 2016-2024

Truck Rates
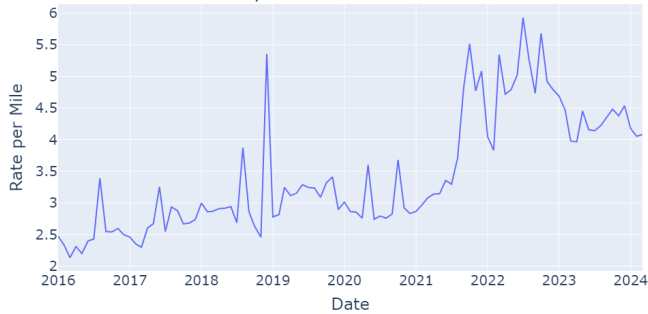

Avg Monthly Truck Rates

Truck Rates for Different Commodity

Monthly Truck Rates for Feed Ingredients

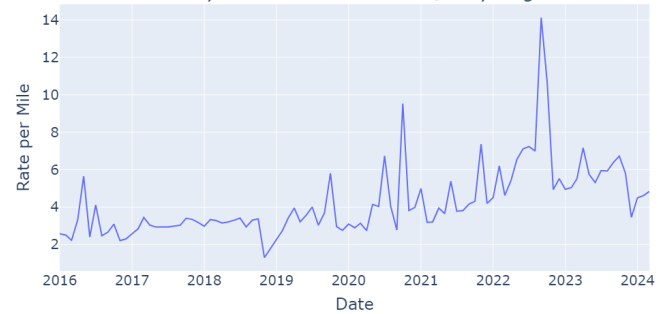Monthly Truck Rates for Fertilizer

Truck Rates for Different Commodity

Monthly Truck Rates for Grain

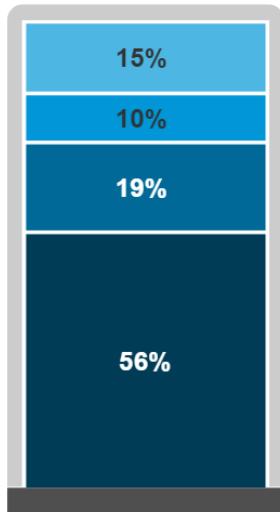Monthly Truck Rates for Metals/Recycling

Fuel Prices

Fuel Prices by Region
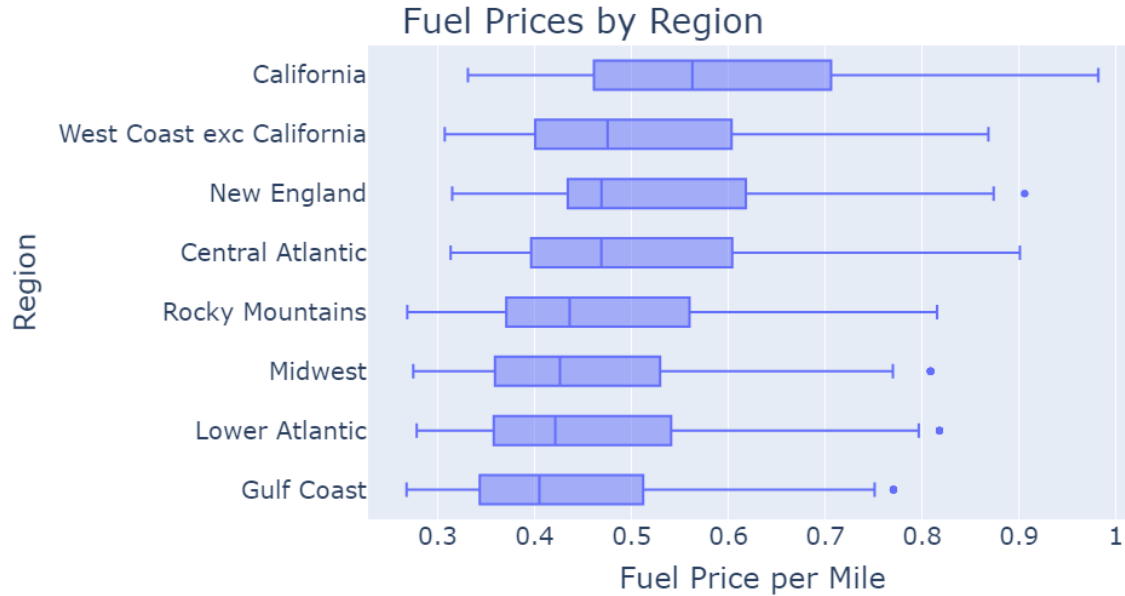
Fuel Prices

What we pay for in a gallon of:

Regular Gasoline
March 2024
Retail price: $3.43/gallon

Diesel
March 2024
Retail price: $4.02/gallon

Regular Gasoline:
- Taxes: 15%
- Distribution & Marketing: 10%
- Refining: 19%
- Crude Oil: 56%

Diesel:
- Taxes: 15%
- Distribution & Marketing: 19%
- Refining: 19%
- Crude Oil: 47%
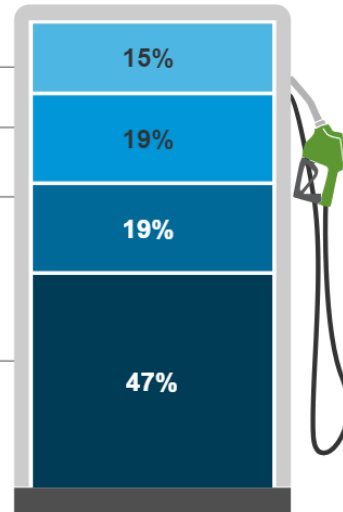
eia
Data source: U.S. Energy Information Administration, *Gasoline and Diesel Fuel Update*

Truck Rates vs Diesel

Fuel Prices and Truck Rates
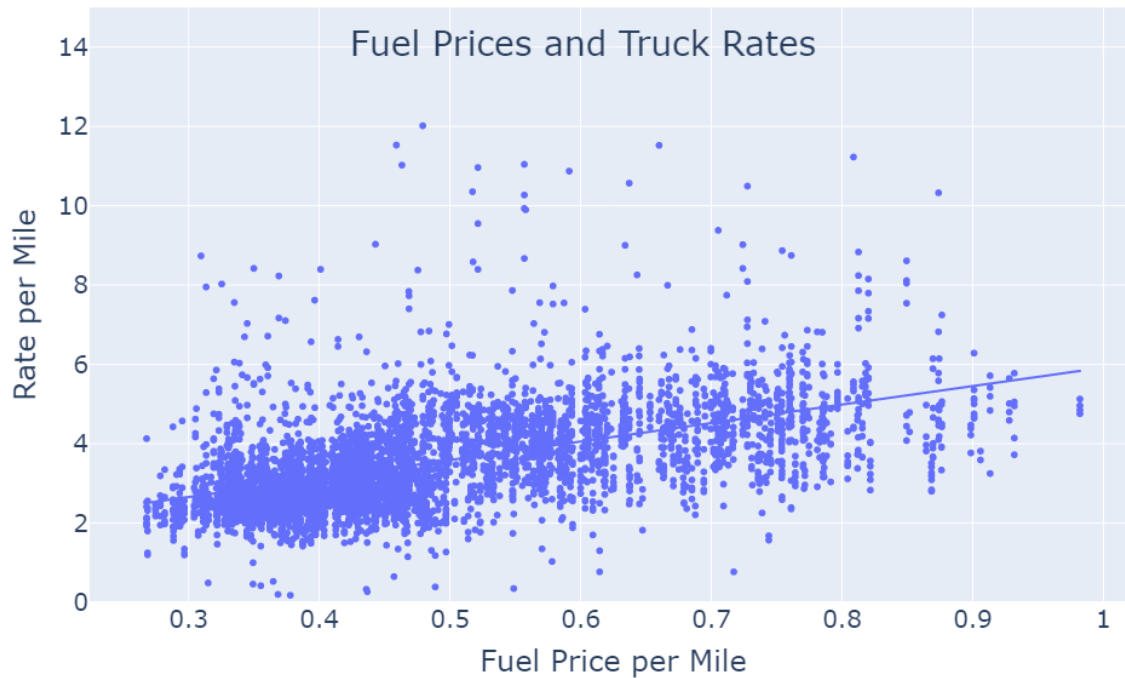
Truck Rates vs Economic Indicator

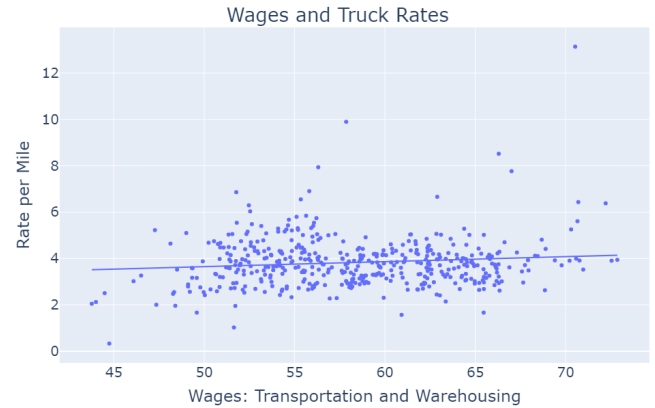# OLS Regression Results for Commodity

	Coef. (Std.Err.)
Aggregates	2.5438 (0.5861)***
Feed Ingredients	2.9108 (0.4307)***
Fertilizer	3.0549 (0.5710)***
Grain	1.7733 (0.6757)**
Industrial	2.6740 (0.5392)***
Metals/Recycling	3.2883 (0.8218)***
Other	3.0875 (6.6921)
Unemployment	1.5897 (1.8504)
Wages	0.0193 (0.0134)
Year	0.0567 (0.0283)**

Table 1: OLS Regression Results for Commodity

OLS Regression Results for Region

	Coef. (Std.Err.)
California	1.7071 (1.3196)
Central Atlantic	2.6982 (0.6205)***
Gulf Coast	4.4344 (0.6701)***
Lower Atlantic	3.5385 (0.5269)***
Midwest	2.4306 (0.4063)***
New England	-0.7016 (2.6077)
Rocky Mountains	2.8634 (0.7712)***
West Coast exc California	-1.2123 (1.1728)
Unemployment	1.9604 (1.8549)
Wages	0.0279 (0.0136)**

Table 2: OLS Regression Results for Region

Questions?

Thank you!