

Analysis of SUV's2 Wheel & 4 WheelDrive

## Overview

The popularity of Sports Utility Vehicles (SUVs) have been on the rise in the United States

According to the New York Times SUVs outsold sedans for the first time in 2015 and the growth is expected to continue

## Problem Statement

What is the difference between a 2WD and 4WD SUV?

How does it affect the combined MPG and the Annual fuel costs of the car?

How much of a difference is it?

# Data Analyzed

# Data from <u>FuelEconomy.gov</u> Data on approximately 38,000 vehicles

#### The Data includes:

- Year
- Make
- Model
- Class
  - Drive
- Fuel Type
- City MPG
- Highway MPG
- Combined MPG
- Annual fuel costs

## 2 Wheel or 4 Wheel Drive

Is 2WD or 4WD better?

Is one better for certain situations?

Can one drive for a drive for a longer amount of time?

Can I save money?

## The Combined MPG

#### A statistically significant difference



#### With 95% confidence



2 Wheel Drive SUV is 1.5 to 2 MPG higher

This translates to a SUV with a 20 gallon gas tank to be able to travel a possible 30 to 40 more miles without having to stop a fill up.



## **Annual Fuel Costs**

With 95% confidence

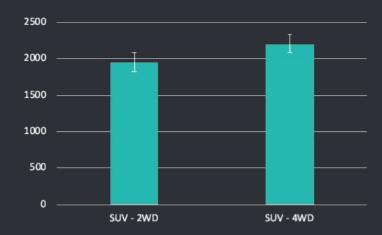
Average annual fuel cost



Between \$220 and \$277 lower

Over the average lifetime of a car (8 years) that would translate to possible savings of \$1,700 to \$1,800 in fuel costs.

#### A statistically significant difference



## Recommendations

If the power of the 4 Wheel Drive is not needed

A 2 Wheel Drive SUV would save money on annual fuel costs and they have a higher combined MPG.

### Let's look at the fuel used by SUVs.

#### Does the type fuel affect the Annual Fuel Costs and Combined MPG?

The approximately 3700 Sports Utility Vehicles use 7 different fuels.

Types of Fuel	Amount of Vehicles
Diesel	34
Electricity	8
Gasoline or E85	295
Midgrade	4
Premium	664
Premium or E85	1
Regular	2703
Grand Total	3709

- Which fuel has the highest annual fuel cost?
- Does the regular fuel type have a higher lower annual fuel cost than the other fuel types?
- Does a certain type of fuel have a higher combined MPG?