Impact of Car Features

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Project Description:

Overview of the project and its purpose : - The dataset contains information on various car models and their specifications, and is titled "Car Features and MSRP". It was provided by Trainity.link, a private college located in New York City.

Here is a brief overview of the dataset:

Number of observations after data cleaning: 8082 (I did Data Cleaning on MS Excel
Number of variables: 16
Initial File type: CSV (Comma Separated Values)
Current File Type: Xlsx (Microsoft Excel Worksheet)

The variables in the dataset are:

Make: the make or brand of the car
Model: the specific model of the car
Year: the year the car was released
Engine Fuel Type: the type of fuel used by the car (gasoline, diesel, etc.)
Engine HP: the horsepower of the car's engine
Engine Cylinders: the number of cylinders in the car's engine
Transmission Type: the type of transmission (automatic or manual)
Driven_Wheels: the type of wheels driven by the car (front, rear, all)
Number of Doors: the number of doors the car has
Market Category: the market category the car belongs to (Luxury, Performance, etc.)
Vehicle Size: the size of the car
Vehicle Style: the style of the car (Sedan, Coupe, etc.)
Highway MPG: the estimated miles per gallon the car gets on the highway
City MPG: the estimated miles per gallon the car gets in the city
Popularity: a ranking of the popularity of the car (based on the number of times it has been viewed on Edmunds.com)
MSRP: the manufacturer's suggested retail price of the car

About The Project : - In this project, I am going to address various business issues and uncover insights for stakeholders to enhance their understanding.

(Analysis Tool Microsoft Excel 365)

Task 1: How does the popularity of a car model vary across different market categories?
Task 2: What is the relationship between a car's engine power and its price?
Task 3: Which car features are most important in determining a car's price?
Task 4: How does the average price of a car vary across different manufacturers?
Task 5: What is the relationship between fuel efficiency and the number of cylinders in a car's engine?

(Analysis Tool Microsoft Power BI Desktop Version -2.119.986.0 64-bit)

Task 1: How does the distribution of car prices vary by brand and body style?
Task 2: Which car brands have the highest and lowest average MSRPs, and how does this vary by body style?
Task 3: How do the different feature such as transmission type affect the MSRP, and how does this vary by body style?
Task 4: How does the fuel efficiency of cars vary across different body styles and model years?
Task 5: How does the car's horsepower, MPG, and price vary across different Brands?

Approach:

To the analysis I am going through these steps :

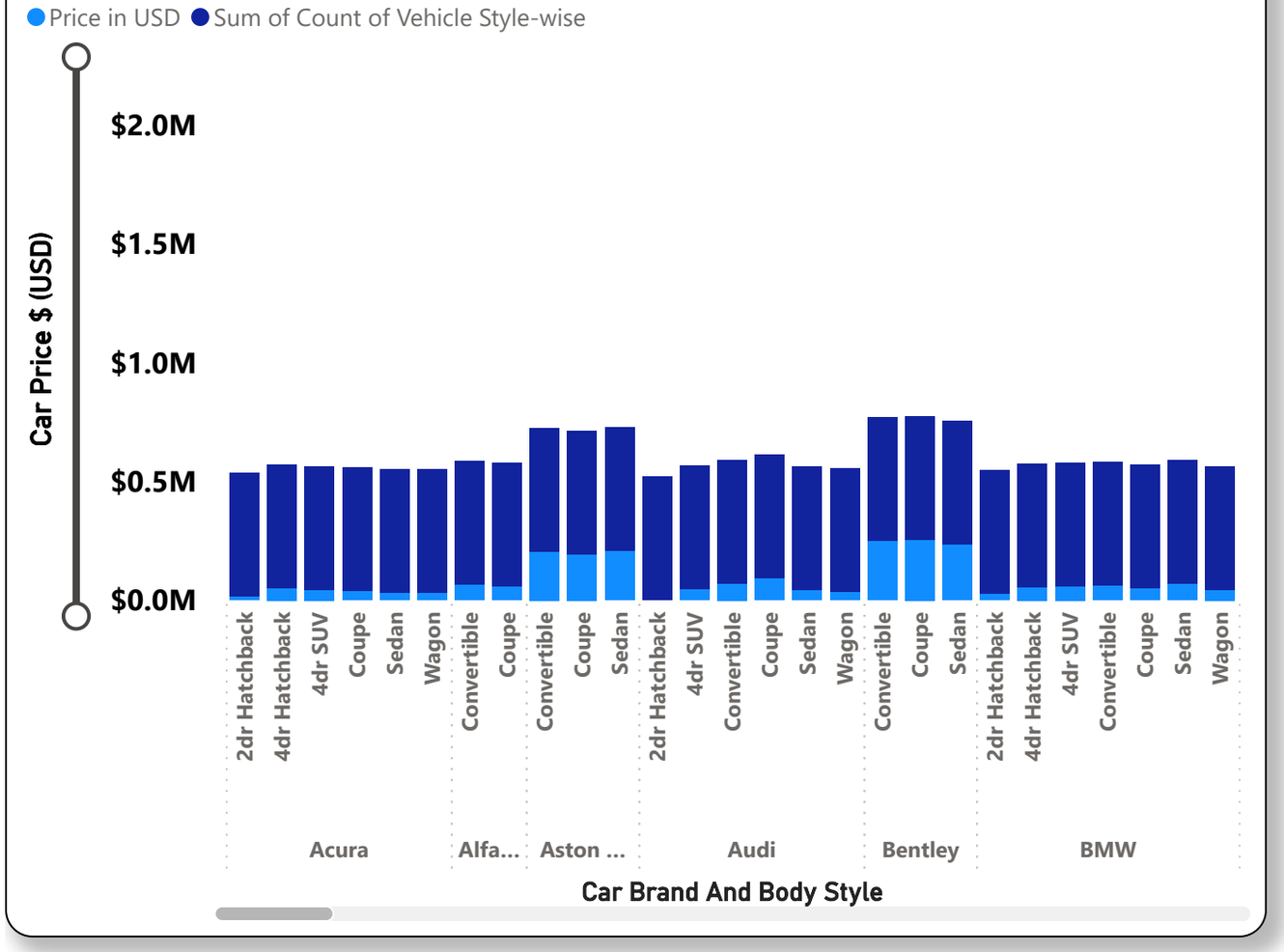
- First I clean the dataset through Power Query Tool (by ETL Process) and prepare for further analysis.
- Use Excel to perform the analysis and answer the questions mentioned in the project details.
- I am creating Dashboard with Microsoft Power BI
- Created (.pdf) report in Power BI to present your findings to the leadership.

Distribution of Car Prices by Brand and Body Style

Choose Your Car Type

Compact | Large | Midsize

Car Prices Ratio By Brand And Body Style



Select Car Price

$2,000 — $20,65,902

Car Brand

- Select all
- Acura
- Alfa Romeo
- Aston Martin
- Audi
- Bentley

Car Style

- Select all
- 2dr Hatchback
- 2dr SUV
- 4dr Hatchback
- 4dr SUV
- Cargo Minivan

Select or drag fields to populate this visual

Manufacturing Year

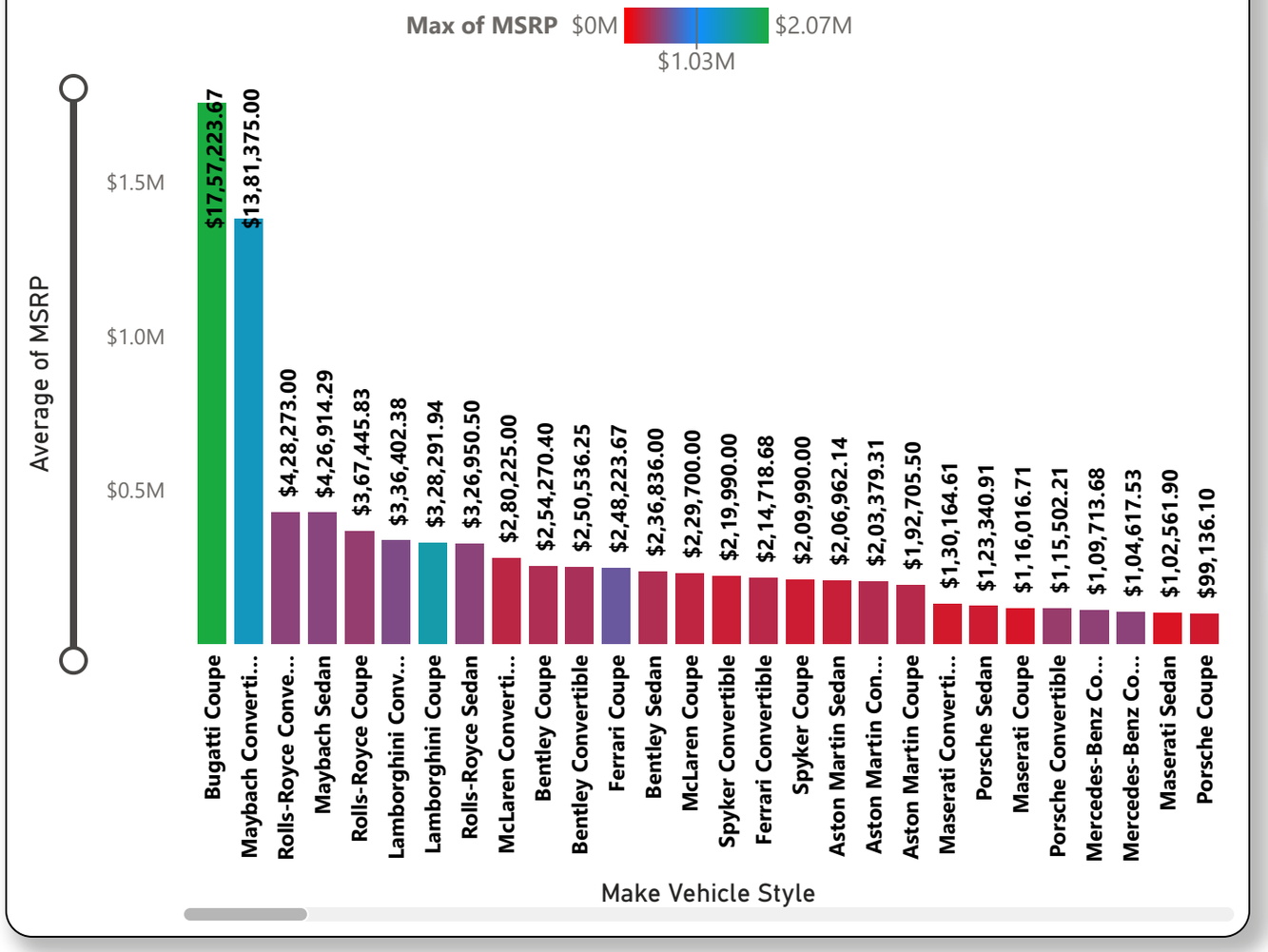
- Select all
- 2017
- 2016
- 2015
- 2014
- 2013

Compare The Average MSRPs Across Different Car Brands And Body Styles

Choose Your Car Type

Compact | Large | Midsize

Average of MSRP by Make and Vehicle Style



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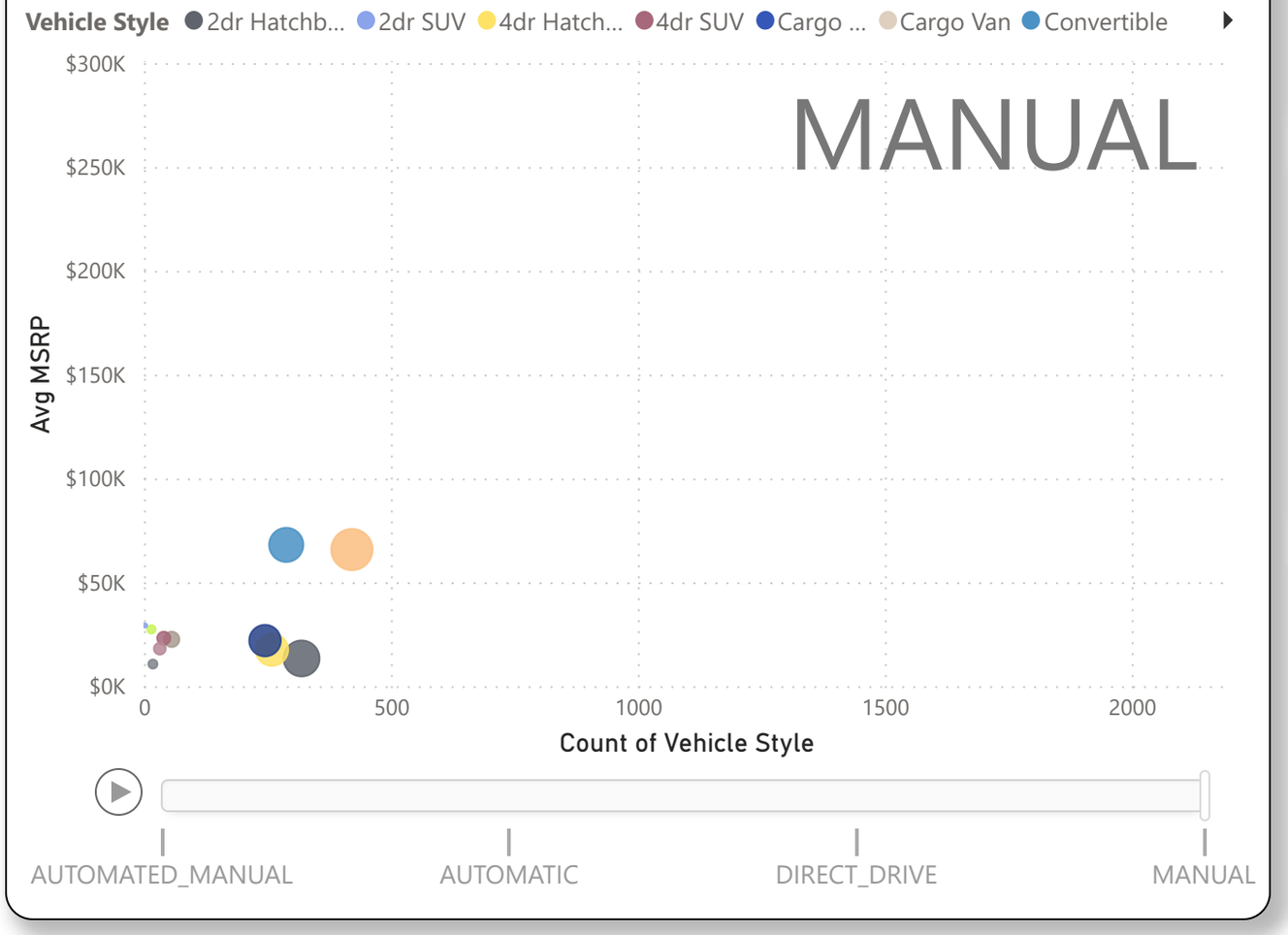
How do the different feature such as transmission type affect the MSRP, and how does this vary by body

Count of Vehicle Style, Avg MSRP and Count of Vehicle Style by Transmission Type, Vehicle Style and Transmission Type



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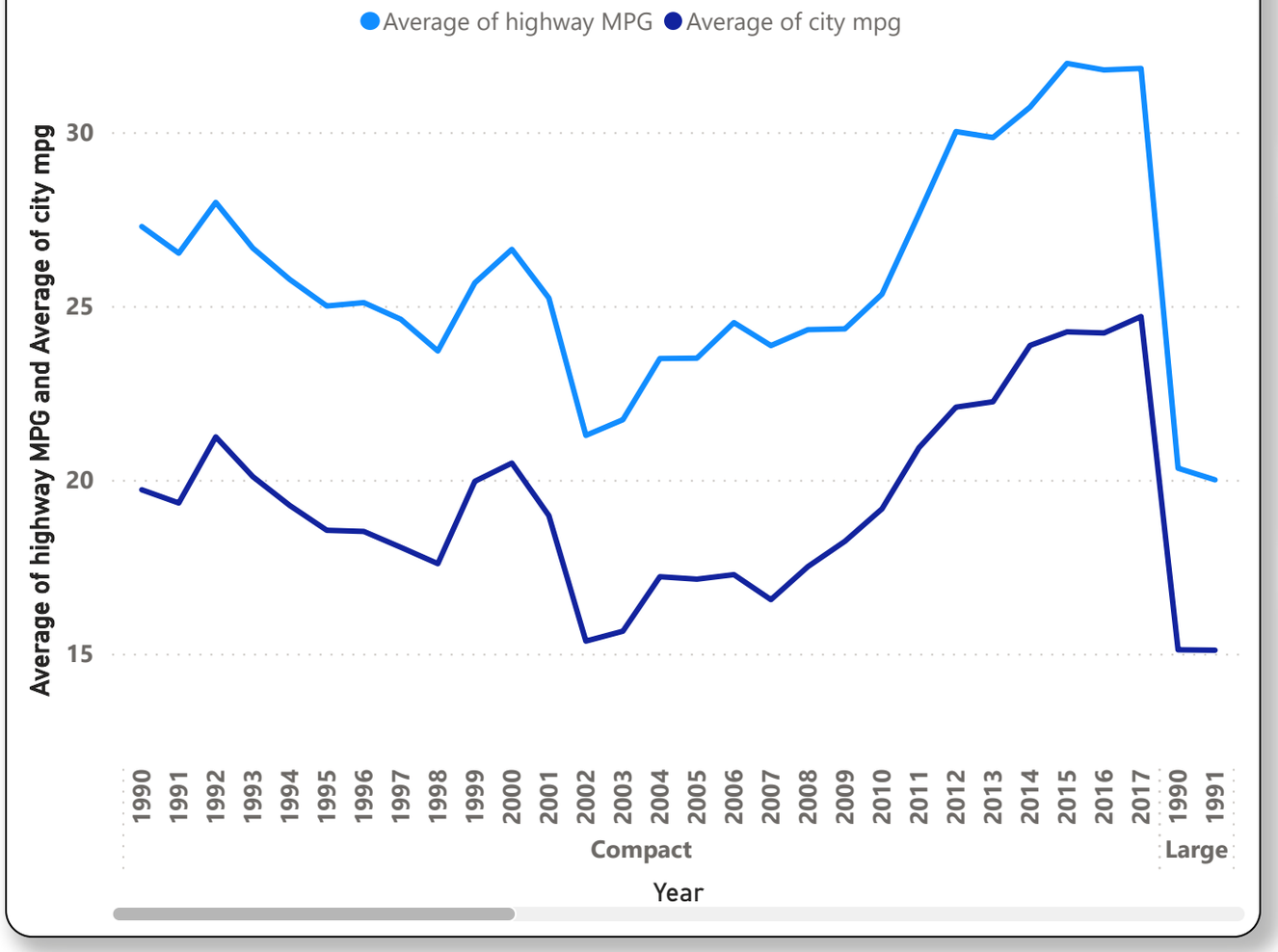
How does the fuel efficiency of cars vary across different body styles and model years

Choose Your Car Type

Compact | Large | Midsize

Fuel Efficiency Of Cars Vary Across Different Body Styles And Model Years



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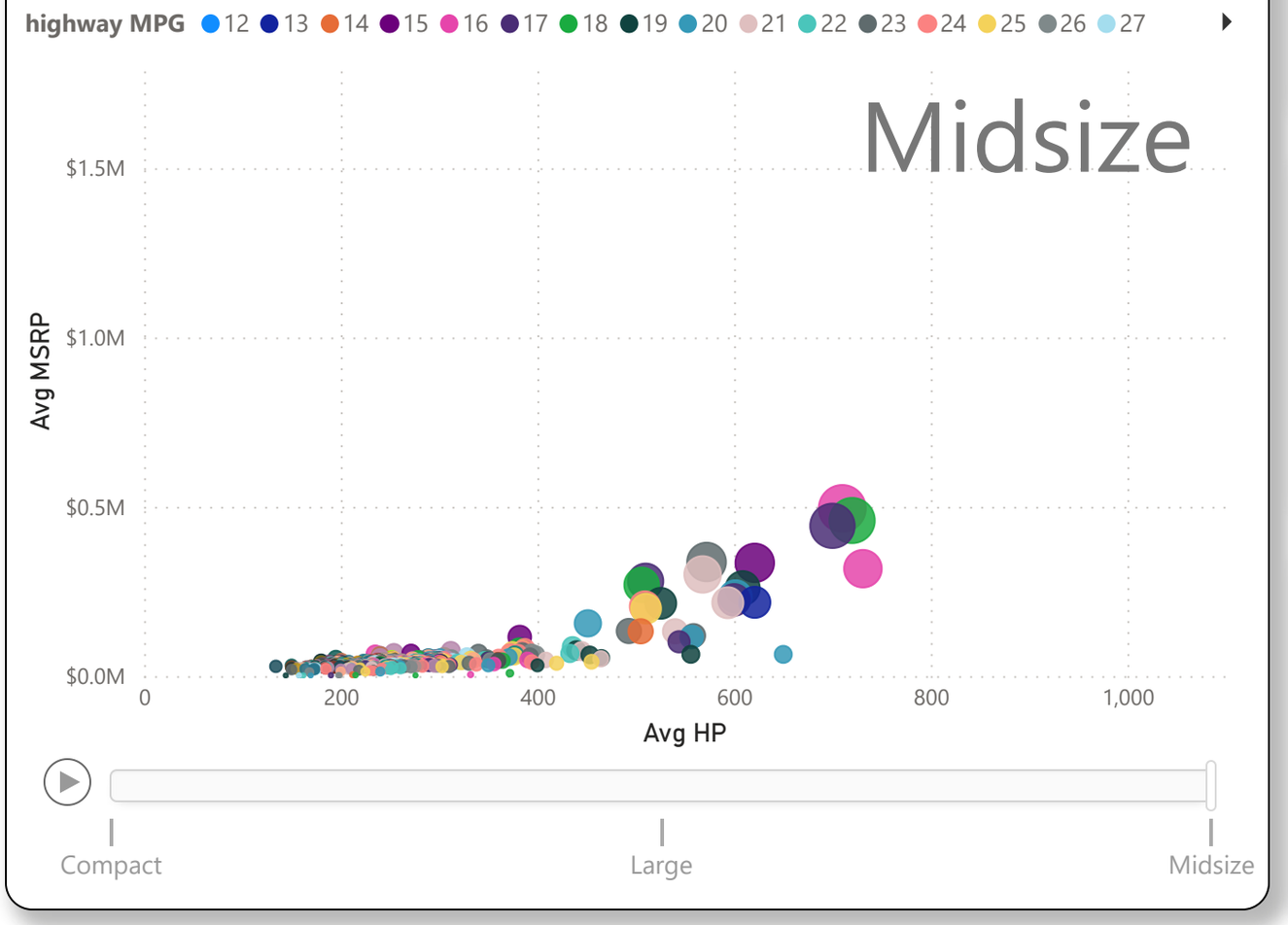
How does the car's horsepower, MPG, and price vary across different Brands?

Choose Your Car Type

Compact | Large | Midsize

Relationship Between Horsepower, MPG, And Price Across Different Car Brands



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