Plotting Practice - Part 1

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Overview

This report illustrates the relationship between average covered charges and total payments made by inpatients through the Inpatient Prospective Payment System (IPPS) for the top 100 Diagnosis-Related Groups in the state of New York.

Obtaining the Processed Data

The data comes in a processed csv file named payments.csv. This data contains information about the IIPS for six different states (California, Florida, Illinois, New York, Pennsylvania, and Texas).

```
    payments <- read.csv('payments.csv')
```

Subsetting the Data

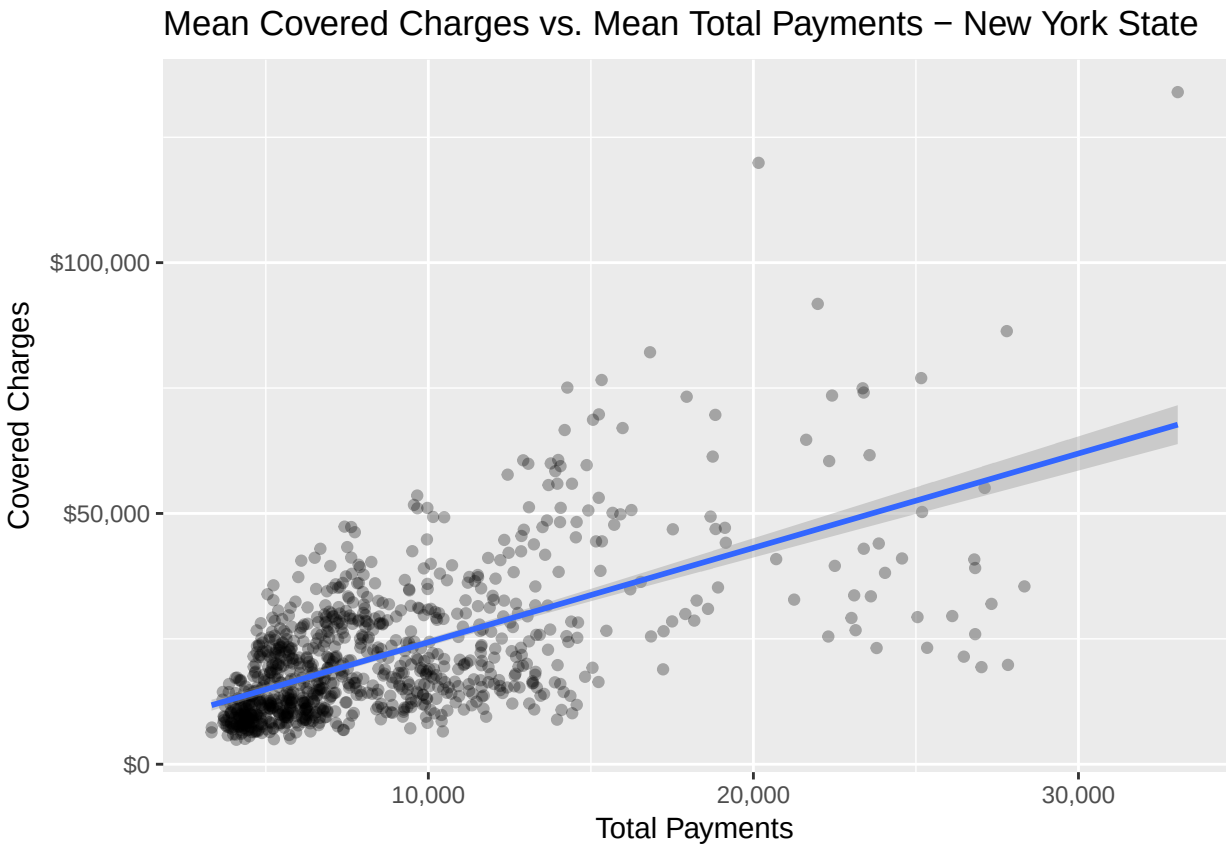
To isolate just the data pertaining to New York state, the data must be subsetted.

```
    NYpayments <- subset(payments, Provider.State == "NY")
```

Plot

The following plot illustrates the relationship between mean covered charges and mean total payments in New York.

```
    g <- ggplot(data = NYpayments, aes(x = Average.Total.Payments,
                                       y = Average.Covered.Charges))
    g + geom_point( alpha = 0.3 ) + geom_smooth(method = lm) +
        ggtitle("Mean Covered Charges vs. Mean Total Payments - New York State") +
        xlab("Total Payments") + ylab("Covered Charges") +
        scale_x_continuous( labels = scales::comma ) +
        scale_y_continuous( labels = scales::dollar )
```



From this graph, it can be determined that there is a strong and positive linear correlation between mean covered charges and mean total payments in the state of New York.