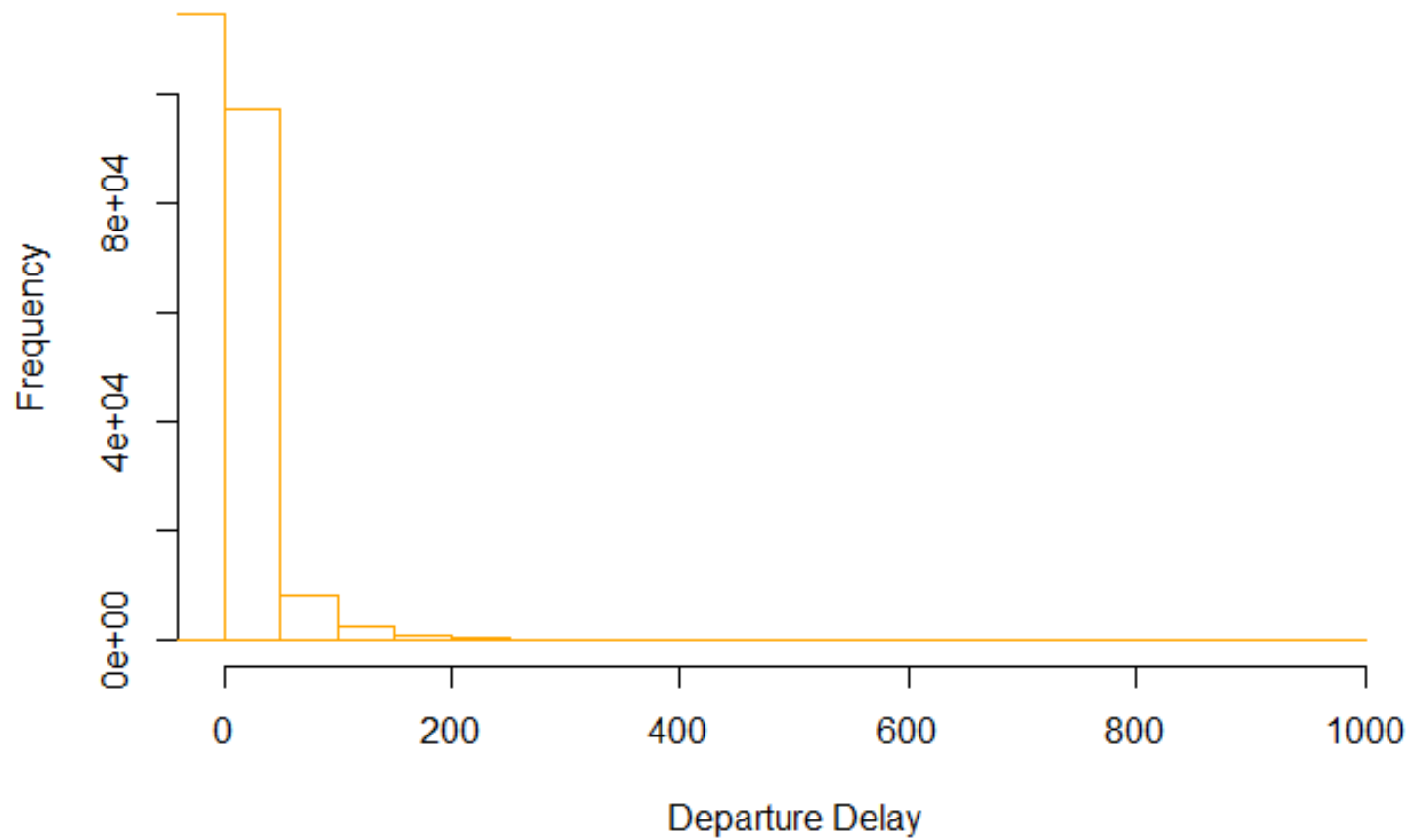


R Final Project

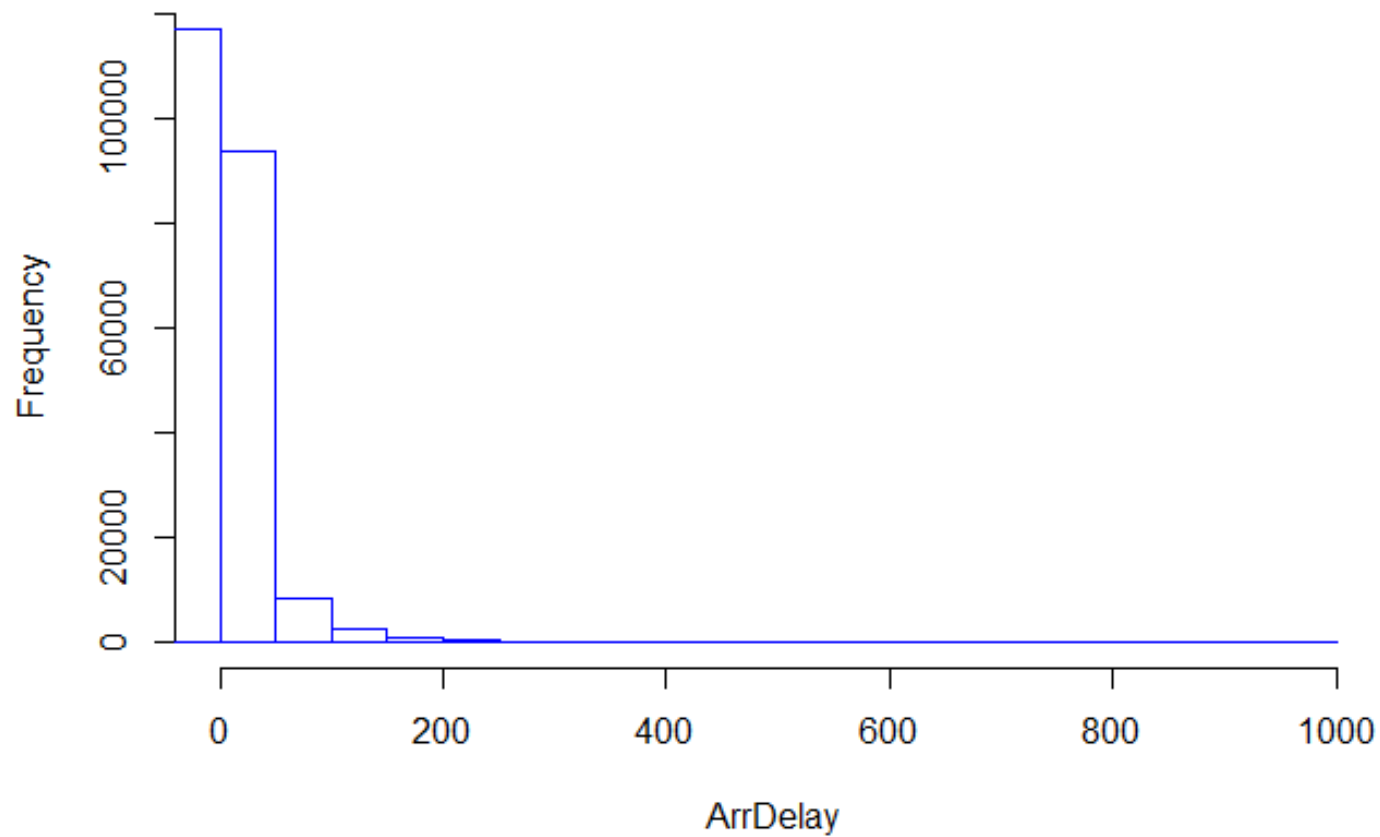
Ali Harb

Departure Delay



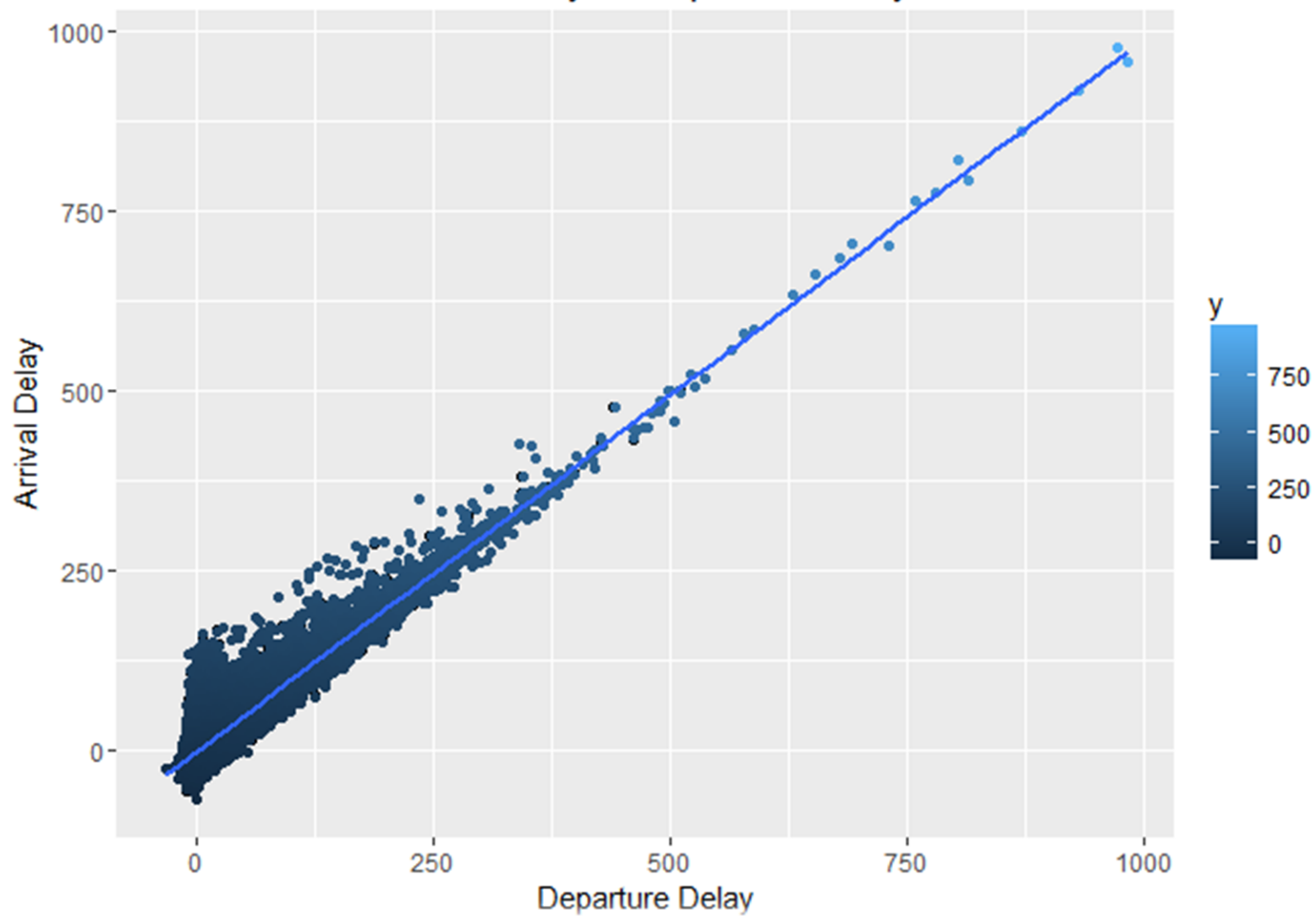
##	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
##	-33.000	-3.000	0.000	9.445	9.000	981.000

Arrival Delay



##	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
##	-70.000	-8.000	0.000	7.094	11.000	978.000

Arrival Delay vs Departure Delay



Test Analysis

```
##  
## Pearson's product-moment correlation  
##  
## data:  get_na_omittedData$ArrDelay and get_na_omittedData$DepDelay  
## t = 1189.8, df = 223870, p-value < 2.2e-16  
## alternative hypothesis: true correlation is not equal to 0  
## 95 percent confidence interval:  
##  0.9286503 0.9297816  
## sample estimates:  
##      cor  
## 0.9292181
```

Correlation Analysis

```
##  
## Welch Two Sample t-test  
##  
## data: flight_data$DepDelay and flight_data$ArrDelay  
## t = 26.436, df = 446450, p-value < 2.2e-16  
## alternative hypothesis: true difference in means is not equal to 0  
## 95 percent confidence interval:  
##  2.176342 2.524892  
## sample estimates:  
## mean of x mean of y  
##  9.444951  7.094334
```

Conclusion

The correlation of 93% and the small P value shows a strong relationship between the two variables. The analysis indicates that departure delay is related to the cause of arrival delay. Looking at the graph, from the condensed congestion of the jitter points we can also determine that there is strong relationship.