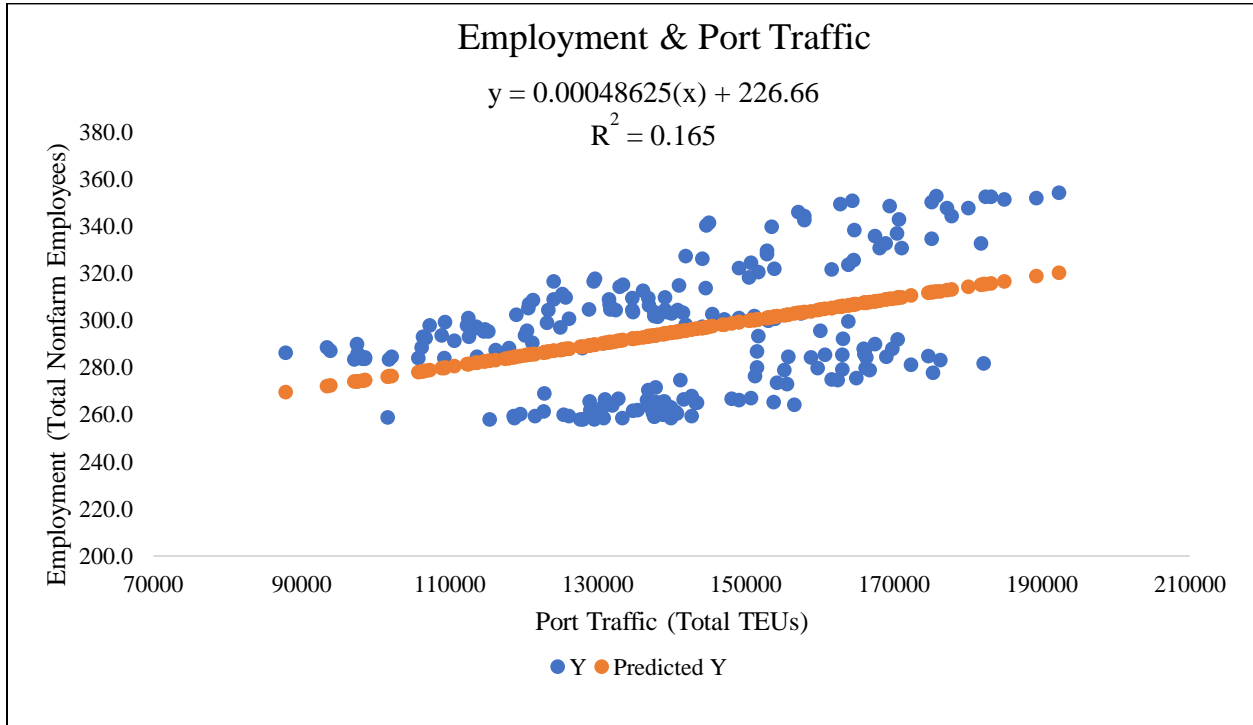


Office of Economic Analysis

Statistical Relationships

Prepared by: Ariel Benton, Research Assistant

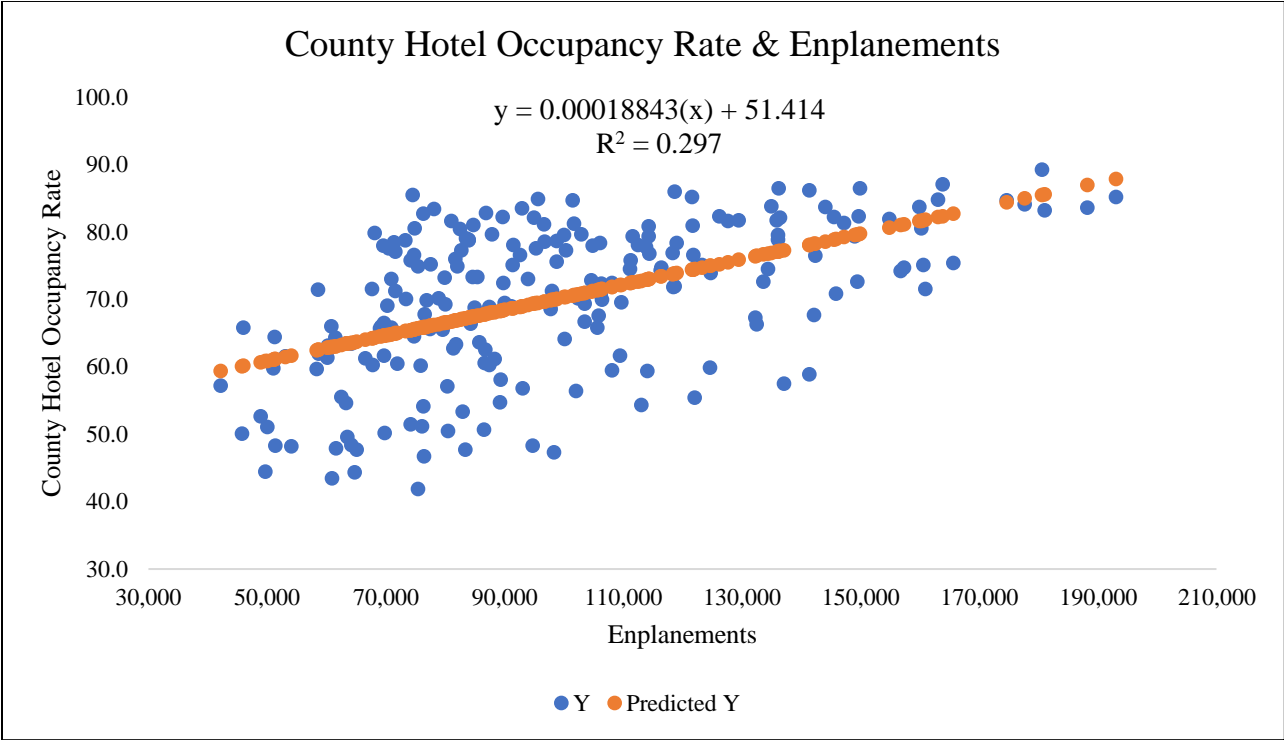
Charleston Employment & Port Traffic



(Table 1)

Here we analyzed the relationship, if any, between Charleston port traffic (measured by total TEUs) and regional employment (measured by total nonfarm employees), using a regression analysis. The data used was from January of 2000 to June of 2017. As can be seen in Table 1 above, the R^2 value—a measure of goodness of fit—was computed to be only 0.165, which means that the model created for port traffic to forecast regional employment is not necessarily a good fit, as only 16.5% of the data fits the regression line. However, the p-value—a measure of statistical significance—was computed to be $5.57414E-10$, which means there is a statistically significant relationship between the two variables.

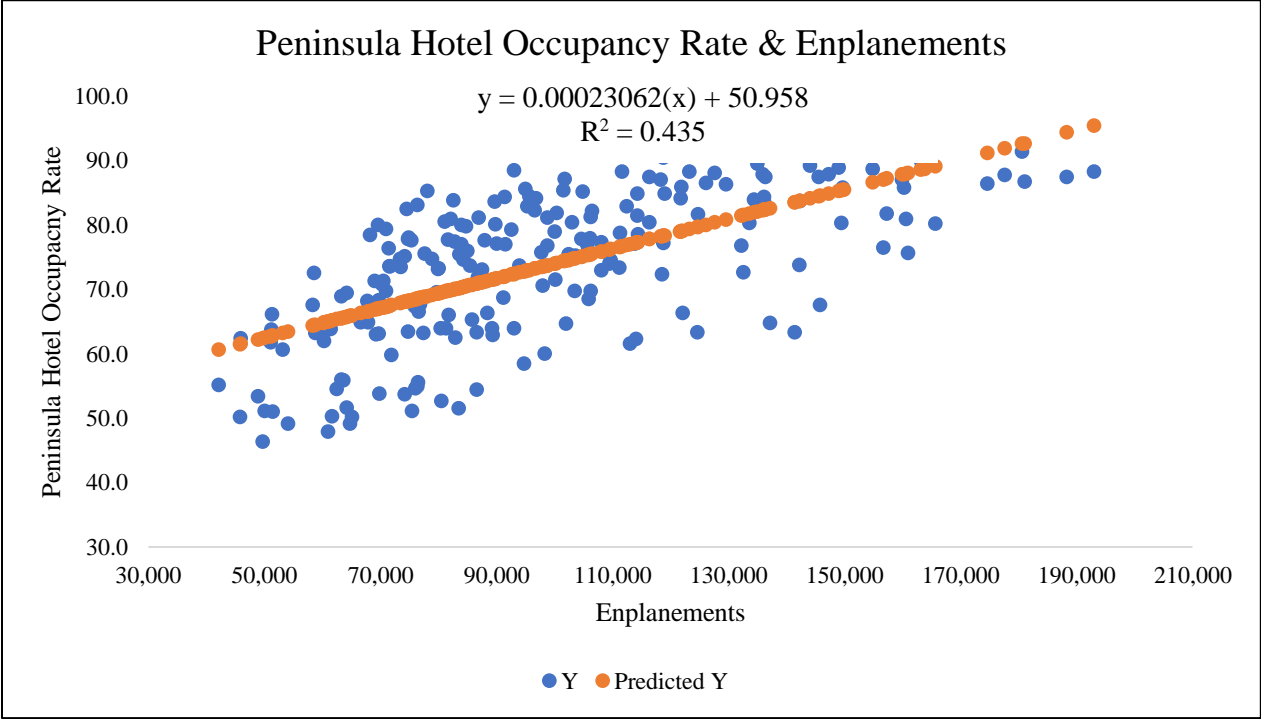
Charleston County Hotel Occupancy Rate & Airport Enplanements



(Table 2)

Again, using a regression analysis, we analyzed the relationship (if any) between the Charleston County hotel occupancy rates and airport enplanements at the Charleston International Airport. The data used in the analysis was again from January of 2000 to June of 2017. As can be seen in Table 2 above, the coefficient of determination (R^2) was found to be a low 0.297, suggesting that this model is not a good indicator of forecasting the county occupancy rate, as only 29.7% of the data fits the regression line. However, the p-value was calculated to be $1.10538E-17$, which means that the relationship between these two variables is highly statistically significant.

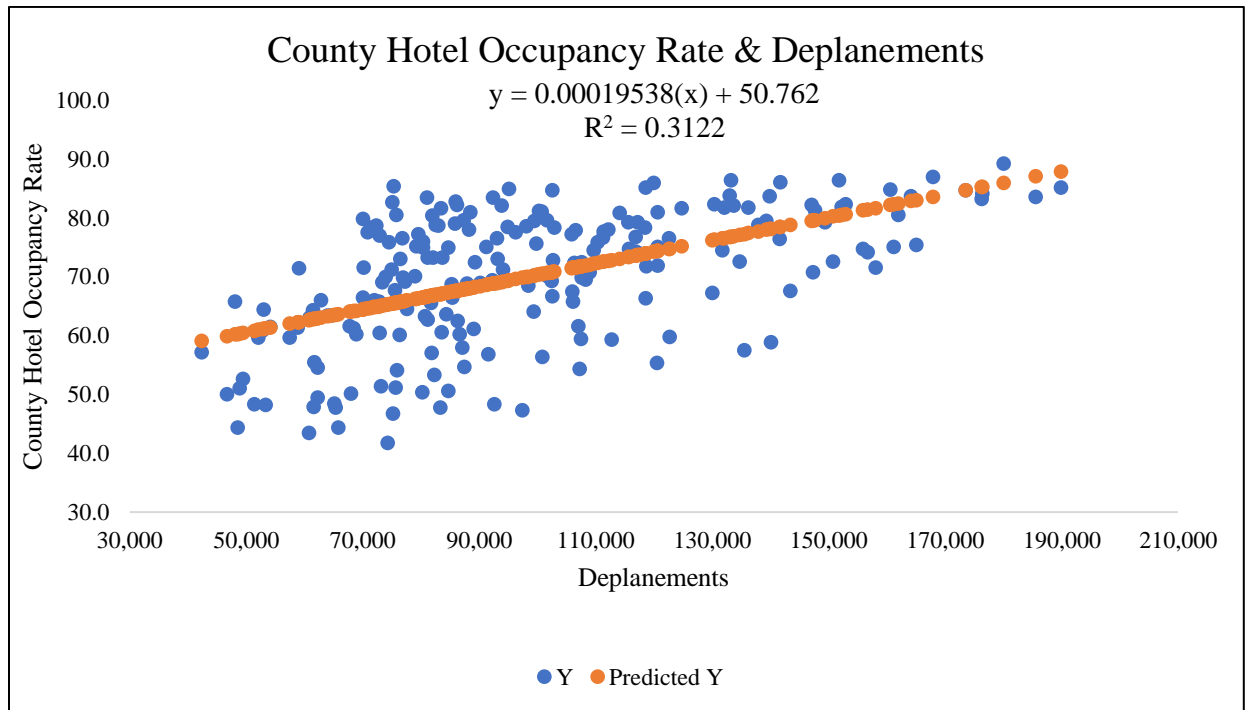
Charleston Peninsula Hotel Occupancy Rate & Airport Enplanements



(Table 3)

Here we analyzed the relationship between the Charleston Peninsula hotel occupancy rates and airport enplanements of the Charleston International Airport, again using a regression analysis. The data used was from January of 2000 to June of 2017. As can be seen in Table 3 above, the R^2 value was found to be 0.435, a weak coefficient of determination, as only 43.5% of the data fits the regression line. The p-value for this analysis was computed to be 1.2547E-27, which means that there is a statistically significant relationship between the two variables.

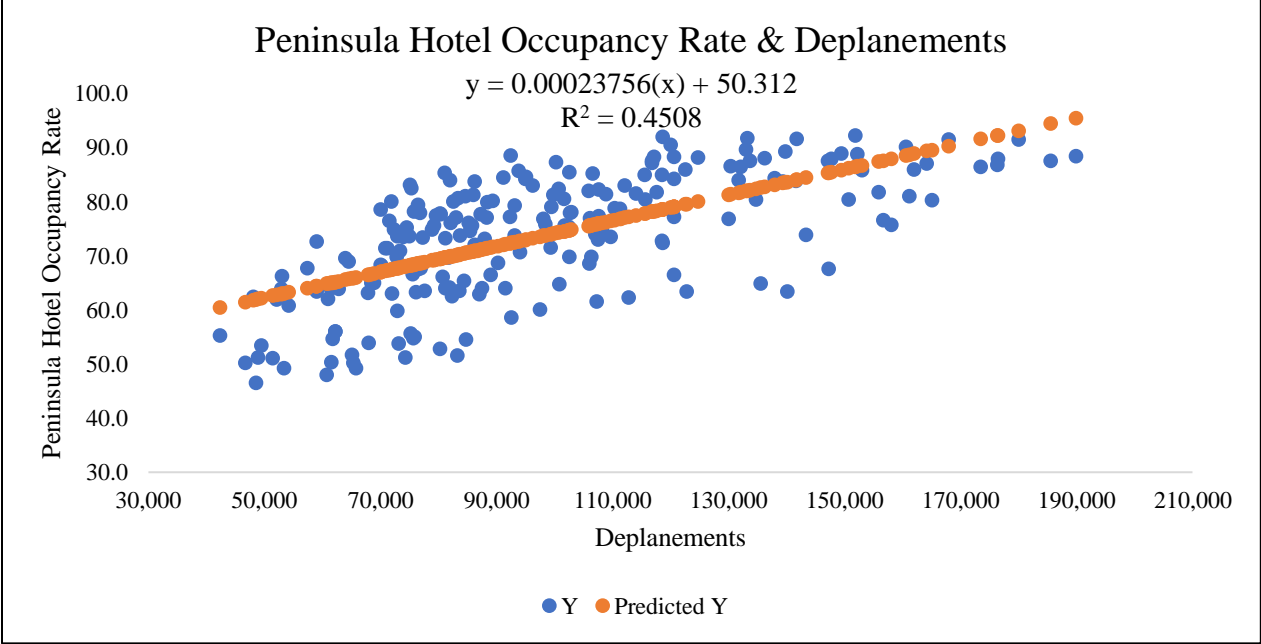
Charleston County Hotel Occupancy Rate & Airport Deplanements



(Table 4)

Here we analyzed the relationship between Charleston County hotel occupancy rates and airport deplanements of the Charleston International Airport using a regression analysis on data collected from January 2000 to June 2017. The R^2 was found to be only 0.3122—meaning that only 31.22% of the data fits the regression line. Although, the p-value was calculated to be 1.21905E-18, which means these two variables have a statistically significant relationship.

Charleston Peninsula Hotel Occupancy Rate & Airport Deplanements



(Table 5)

Here we analyzed the relationship between Charleston Peninsula hotel occupancy rates and airport deplanements from the Charleston International Airport using a regression analysis on data collected from January 2000 to June 2017. As can be seen in Table 5 above, the R^2 value was found to be 0.4508, as only 45.08% of the data fits the regression line. The p-value in this analysis was calculated to be 6.94228E-29: denoting a highly statistically significant relationship between the two variables analyzed.