**Results of Multiple Regression Subset Analysis**

The following report shows bar charts for each of the multiple regressions I ran on subsets of the data. For each group I noted the r-squared value, which is a measure of predictive ability. The bar charts show the factors in each subset's regression that were statistically significant, i.e., those factors whose p-values were less than 0.01. To include a bit more information in the charts, I programmed the bars to print blue if there was a positive correlation between the factor and the employment growth rate, and to print red if there was a negative correlation between the factor and the employment growth rate.

**Subsets by Employment Growth Rate**

**Counties With A Good Growth Rate (>5%)**

R-squared value = 25.8%

A picture containing bar chart

Description automatically generated

**Counties With A Negative Growth Rate (<0%, Job Loss)**

R-squared value = 37.5%

Chart, bar chart

Description automatically generated

**Counties With A High Growth Rate (>9%)**

R-squared value = 28.4%

A picture containing graphical user interface

Description automatically generated

**Subsets by Unsupervised Class/Cluster**

**Class 0 – Deep South**

R-squared value – 42.9%

Bar chart

Description automatically generated with medium confidence

**Class 1 – North Central**

R-squared value – 36.5%

Graphical user interface, application, Teams

Description automatically generated

**Class 2 – Upper Midwest and Friends**

R-squared value – 62.0%

Chart

Description automatically generated

**Class 3 – Appalachians and Near to Texas**

R-squared value – 35.6%

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Description automatically generated

**Class 4 – Missouri and Indiana Plus**

R-squared value – 33.6%

Chart, bar chart

Description automatically generated

**Class 5 – Coasts and Rockies**

R-squared value – 59.7%

Chart, bar chart

Description automatically generated

**Class 6 – Texas**

R-squared value – 47.0%

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**Subsets by % Rural**

**0-17% Rural**

R-squared value – 62.8%

Graphical user interface, application

Description automatically generated

**17-33% Rural**

R-squared value – 67.3%

A picture containing graphical user interface

Description automatically generated

**33-47% Rural**

R-squared value – 55.0%

A picture containing application

Description automatically generated

**47-59% Rural**

R-squared value – 49.3%

Chart

Description automatically generated

**59-71% Rural**

R-squared value – 49.8%

Chart, bar chart

Description automatically generated

**71-88% Rural**

R-squared value – 37.4%

Text

Description automatically generated

**88-100% Rural**

R-squared value – 21.5%

A picture containing bar chart

Description automatically generated