

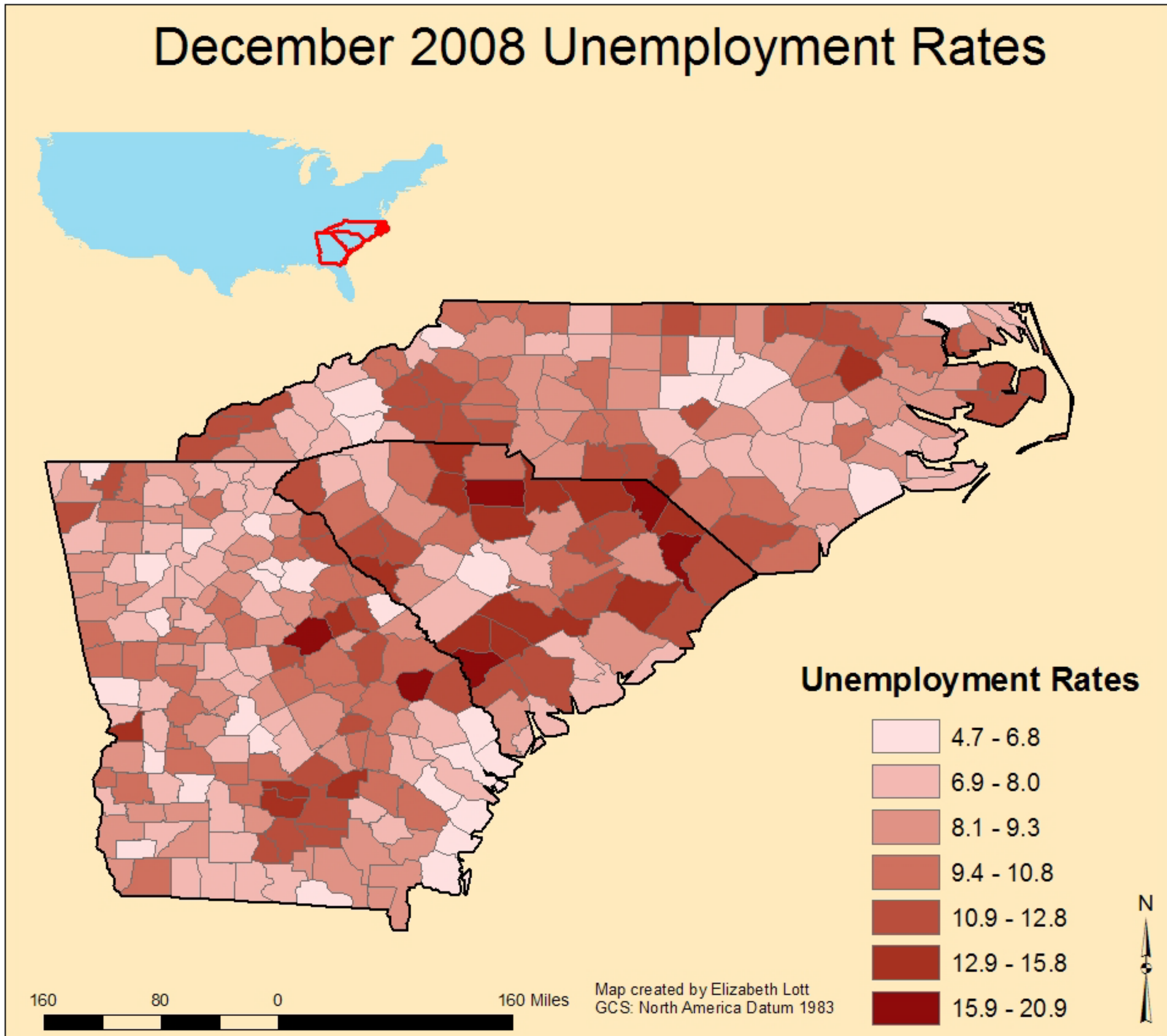
Recent Unemployment Trends for South Carolina, North Carolina, and Georgia

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ABSTRACT

Following a mortgage crisis, the United States entered a period of drastic economic decline towards the end of the 2007 financial year. As the economy worsened, unemployment rates began to increase. Past studies have shown that increases in unemployment rates are strongly correlated to increases in internal and external migration. Using unemployment data from the Bureau of Labor Statistics and the U.S. Census Bureau, ten year change (from December 1998 to December 2008) in unemployment rate and labor force was calculated and spatially analyzed using GIS at county level for North Carolina, South Carolina, and Georgia. Statistical correlation between changes in labor force and unemployment rates was determined using GeoDa. Also, industry-specific data was analyzed for South Carolina's ten metropolitan areas. The highest unemployment rates were in South Carolina, though North Carolina had the greatest increase in unemployment rates over ten years. Though there was no significant correlation between ten-year change in unemployment rates and ten-year change in labor force, there was a significant relationship between current unemployment rates and ten-year change in labor force, where high unemployment rates correlate to a declining labor force. This suggests that high unemployment rates urge internal migration in the labor force. However, it remains unclear whether internal migration from job-poor areas to areas with greater job availability will cause national unemployment levels to decrease or lead to further unemployment.



INTRODUCTION

Migration is a risky endeavor because it involves capital investment (Weeks, 2008). Therefore, strong forces, such as public services, job transfers, political, environmental, and economic factors must exist to either “push” someone to migrate or “pull” them from another location (Devillanova, 2004; Weeks, 2008). Loss of a job can strongly influence the unemployed to search for employment in areas of high job availability (Pekkala and Tervo, 2002). Furthermore, unemployment rates often cycle in correlation with economic booms and recessions (Rosholm, 2001). Recently, the United States has undergone a period of drastic economic decline in the final quarter of 2007, which has caused unemployment rates to increase. The aim of this study was to spatially analyze the relationship between changes in unemployment rates and labor force in the South Eastern United States as unemployment rates continue to rise. It is hypothesized that there is a significant relationship between changes in labor force and unemployment rates throughout North Carolina, South Carolina, and Georgia, and that high rates of unemployment increase will correlate with negative changes in labor force.

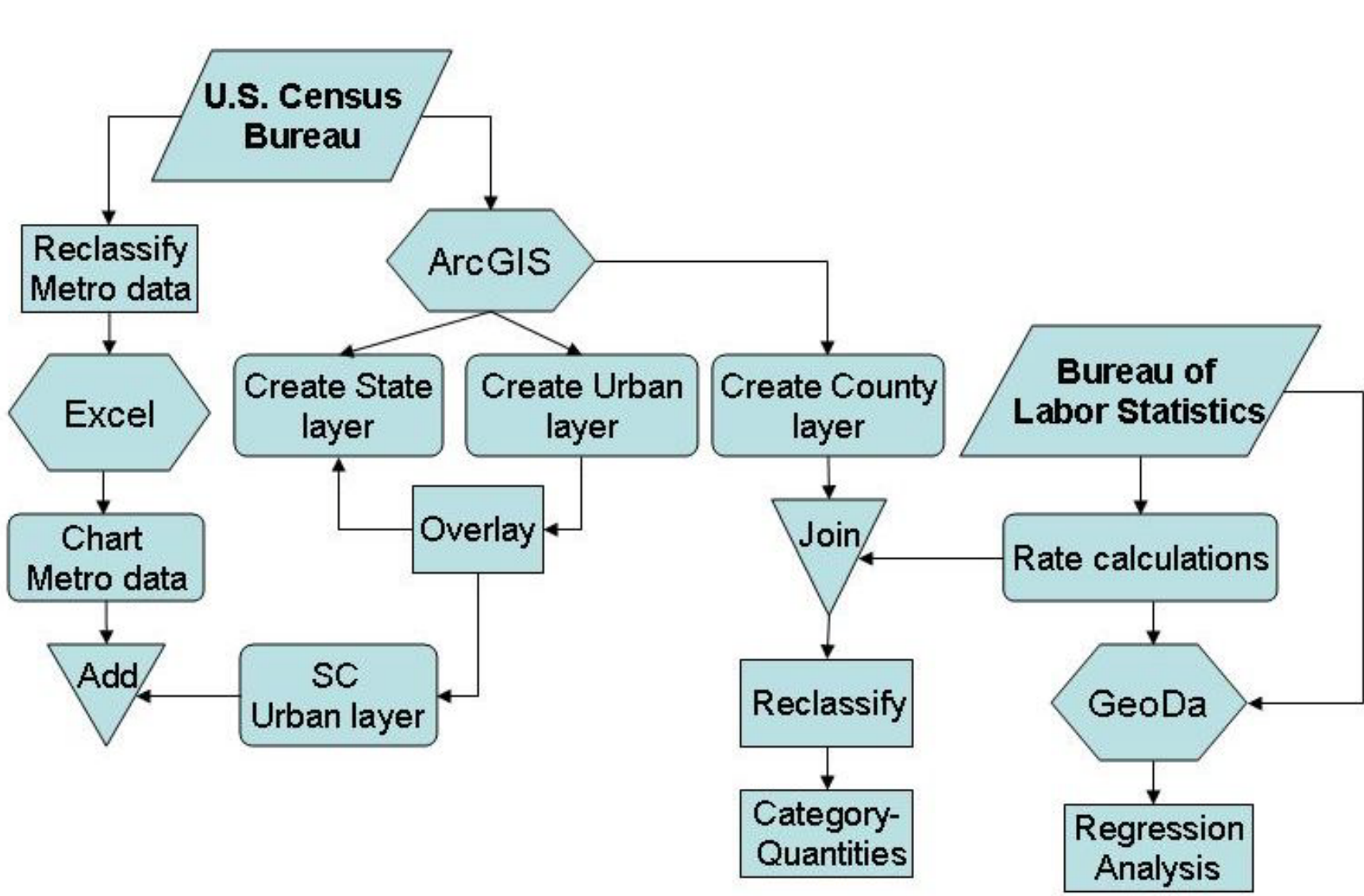
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Data sources

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2. United States Bureau of Labor Statistics. <www.bls.gov> Accessed March 2009.
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Methods:



Unemployment and Labor Force Trends

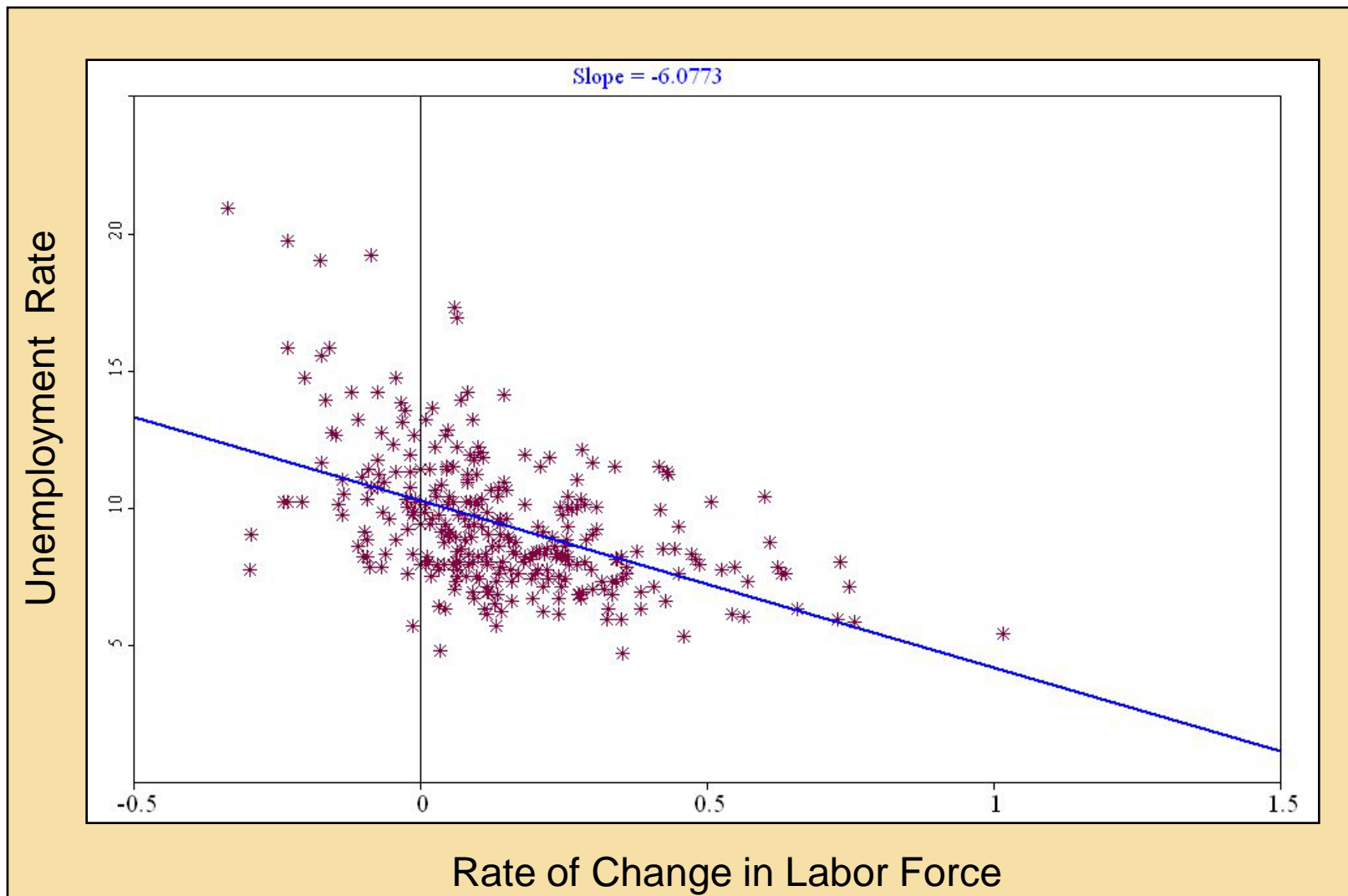
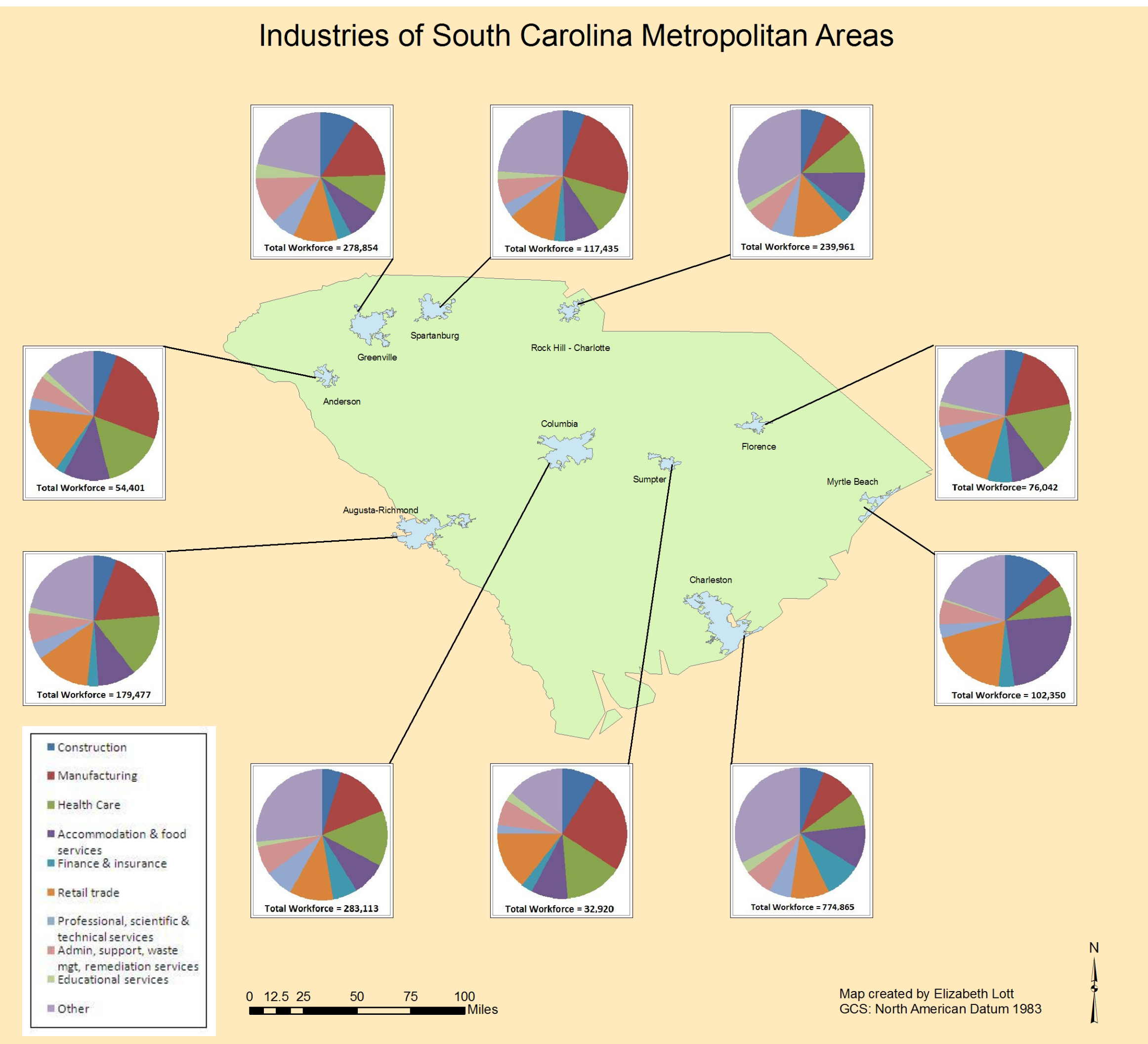
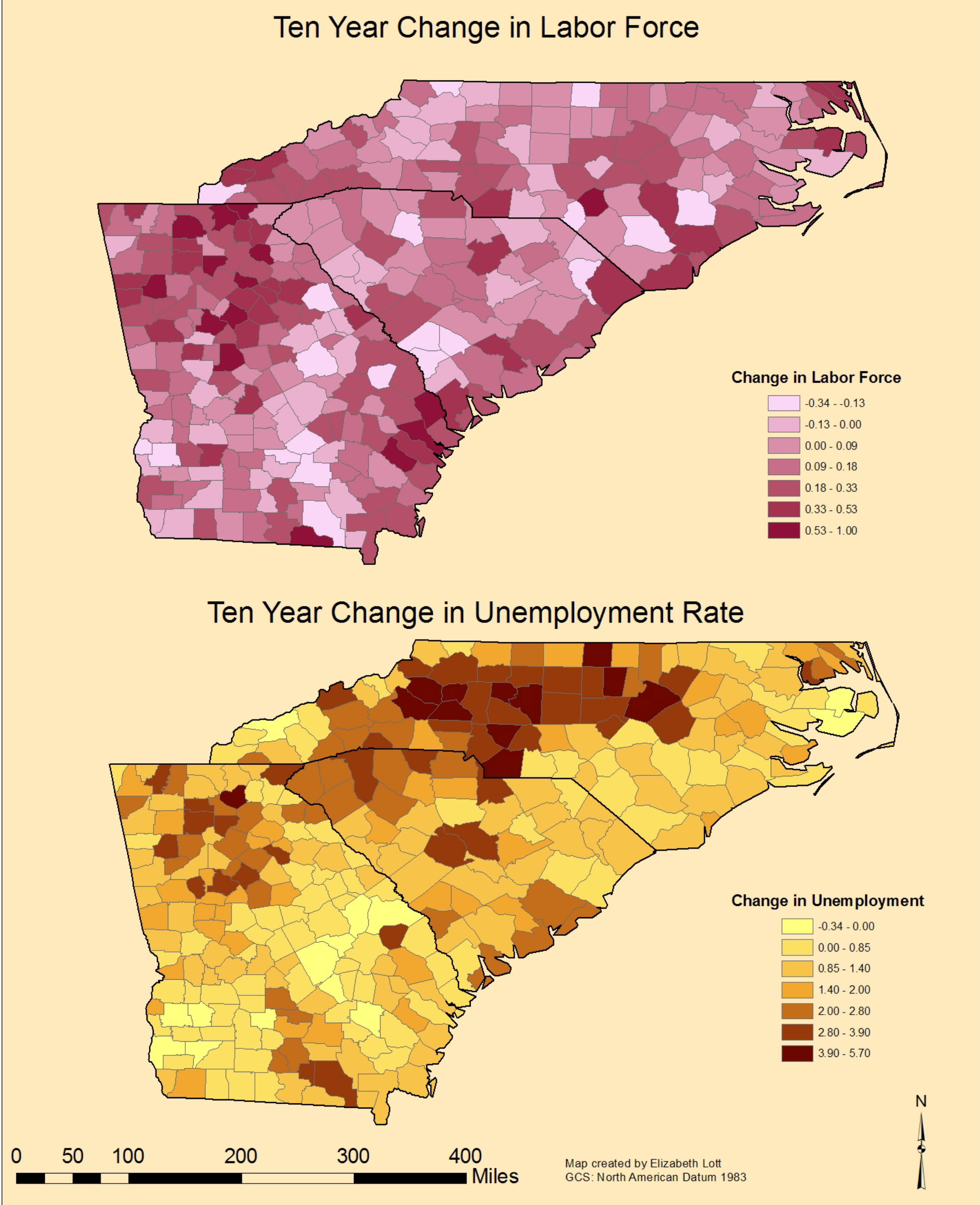


Figure 1: Relationship between December 2008 Unemployment Rates and Ten-Year change in Labor Force. As unemployment rates increase, there is significant decrease in labor force (df= 303, p = 1.13e-019).

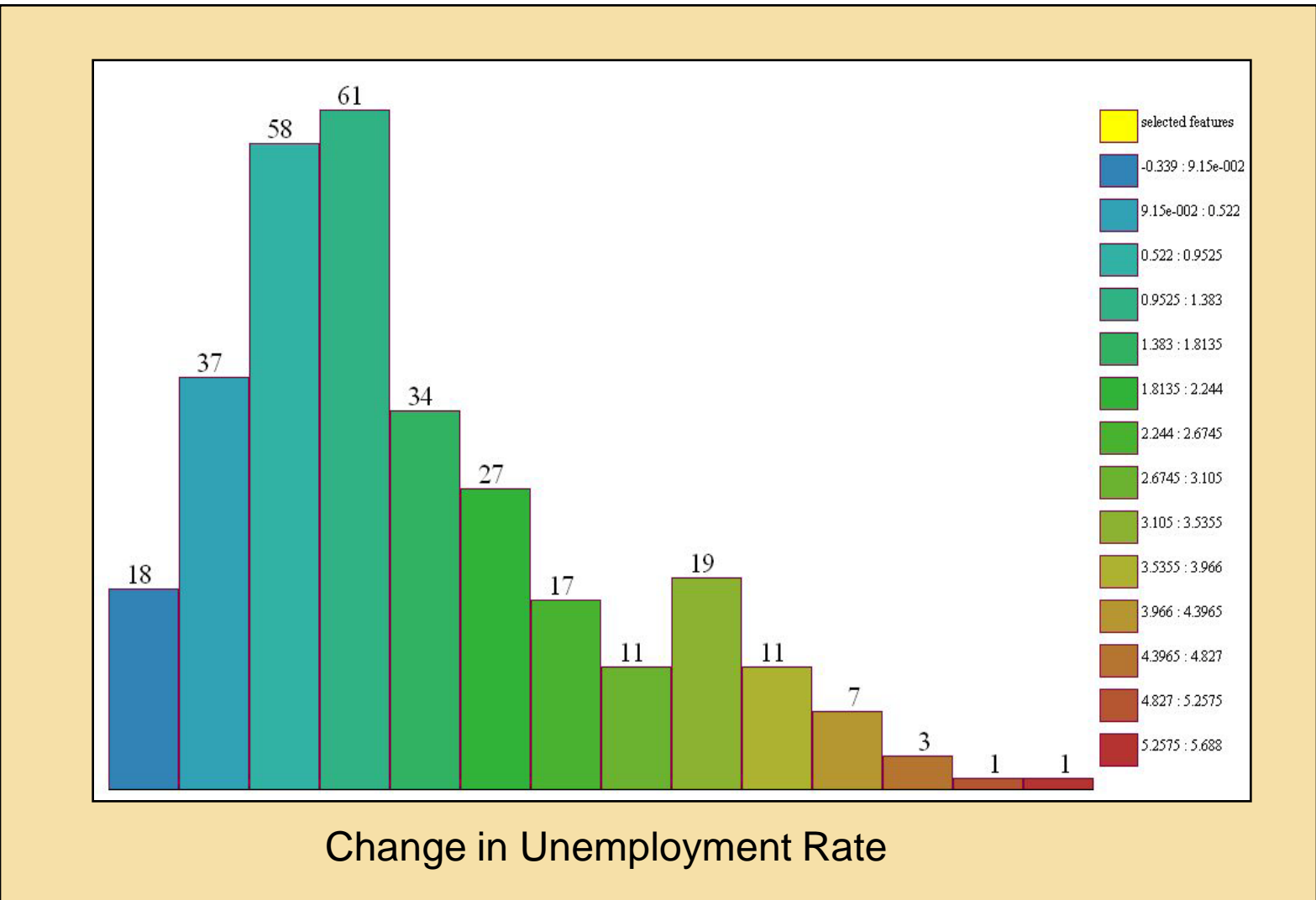


Figure 2: Histogram of Ten-Year Change in Unemployment Rates. Ten-year change in unemployment rates were grouped into 12 categories, with the most rates between 0.522 and 1.383-fold increase. Range of unemployment change was from -0.339 to 5.688.

RESULTS

- Counties with the greatest ten-year change unemployment rates, North Carolina had 18 of the top 20, such as Caldwell, Orange, Caswell, Alexander, Catawba, Davidson, Cabarrus, Davie, and Burke County, while Jenkins and Lumpkin counties in Georgia were among these top 20
- Counties with the highest unemployment rate were not necessarily those with highest unemployment rate
- The top 20 counties with the highest unemployment rates in December 2008 were mainly in South Carolina (13/20), followed by Georgia (5/20) and North Carolina (2/20)
- No state had significantly greater loss in labor force, greatest losses including Jenkins GA, Duplin NC, Clinch GA, Quitman GA, Barnwell SC, though Georgia had the largest labor gains
- There is no relationship between ten-year change in force and ten-year change in unemployment rate (df = 303, p = 0.698)
- There is a significant relationship between the December 2008 unemployment rate and ten-year change in labor force (df = 303, p = 1.13e-019)
- There did not appear to be any correlation with type of industry and spatial location within South Carolina; therefore, it remains inconclusive whether or not certain industries had higher losses in labor force or increases in unemployment.



What does a recession look like? Homeless men line up for a place to sleep, 1930. Image from the New York Times archive online.

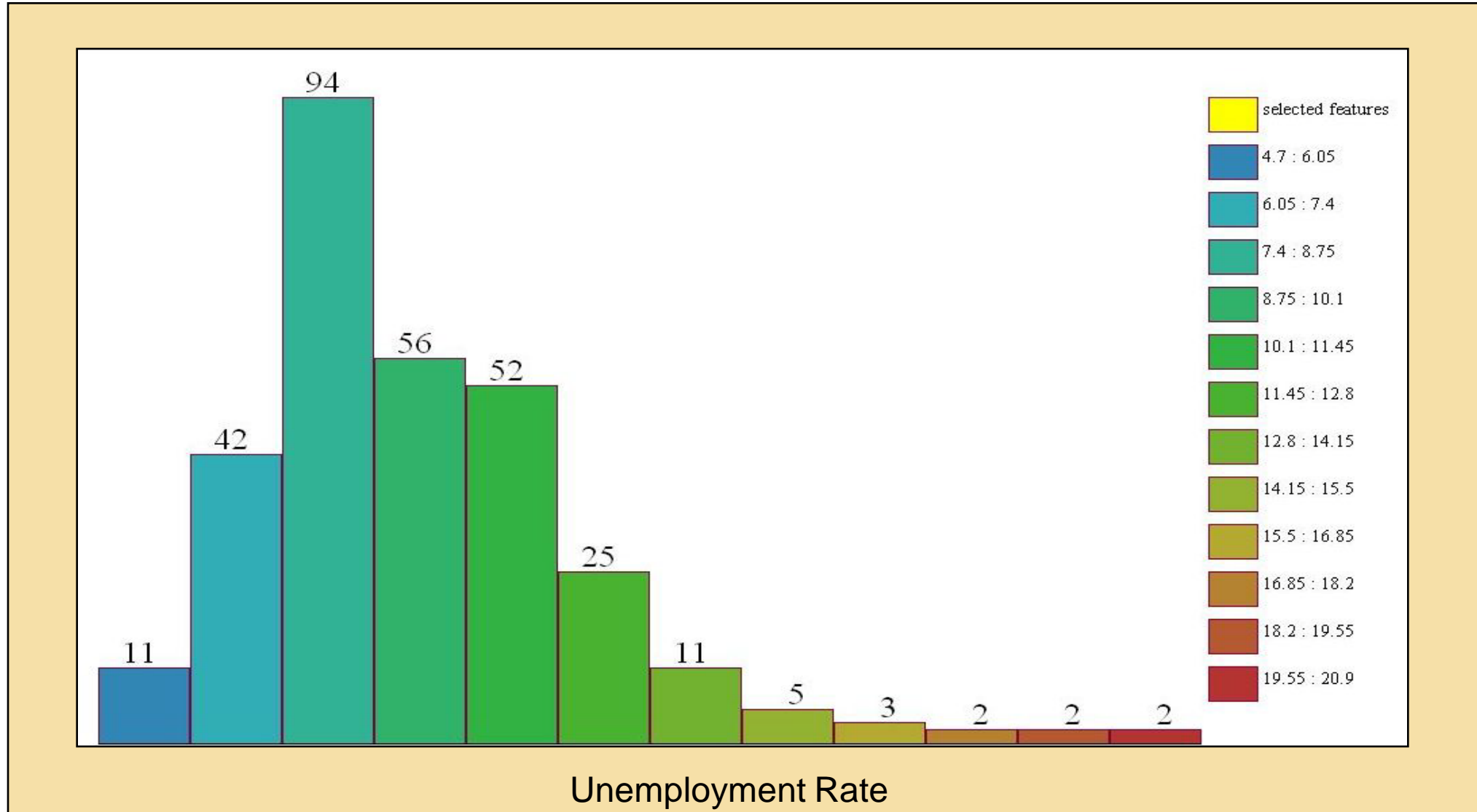


Figure 3: Histogram of December 2008 Unemployment Rates. Unemployment rates (%) were grouped into 12 categories, with the most rates between 7.4% and 8.75%. Unemployment rates ranged from 4.7 to 20.9%.

DISCUSSION AND CONCLUSION

Though there was no significant relationship between change in unemployment and change in labor force, there was a highly significant relationship between current unemployment rates and internal labor migration. This suggests that it is not the rate at which unemployment is increasing that has the most impact on changes in labor force, but simply current rates of unemployment. Specifically, counties in South Carolina, which had the highest unemployment rates, are those which have large losses in labor force. However, counties in North Carolina which are undergoing the largest increases in unemployment rate could also feel large labor losses as unemployment rates rise. Furthermore, Georgia has both the lowest unemployment rates and the largest ten-year increase in labor force, which suggests that labor force is moving into Georgia counties due to higher job availability. High rates of unemployment can cause enough “push” incentives to outweigh risks of moving (Weeks, 2008); however, though unemployment may cause internal migration, it remains unclear on whether this migration is alleviating or exacerbating the problem (Pekkala and Tervo, 2002). Therefore, there remains a need to closely monitor changes in unemployment and labor force as the recession continues or ebbs, to clarify this problem. Furthermore, it remains unclear whether losses from specific industries are driving the above changes, and the need to investigate industry-specific labor losses is needed.

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