

# An Analysis of the Geographic Distribution of Recent Furman Graduates

## Results

## Abstract

During recent decades, Furman University has been actively building its national reputation as a high-quality liberal arts institution. This reputation is in many ways tied to the graduates of Furman, who serve both as indicators of the University's progress towards this goal, as well as the overall skills and abilities gained in receiving a Furman education. The focus of this project is to highlight some of the geographic patterns visible among Furman graduates in the last two decades, based on where they originated from and their current residences. The goal in doing this analysis is to map out the distributive properties of a Furman degree while accounting for several other factors that come into play in influencing the post-college migration decisions of graduates. Additionally, in comparing the graduates of the class of 1995 with those of 2005, this project aims to draw some conclusions as to how patterns of migration for graduates have changed over the course of 15 years. The results of the analysis provide some interesting insight into the likely paths of current and future students, displaying distinct patterns of rural-to-urban movement as well as a less pronounced, but equally important process of dissemination.

## Introduction and Background

Having come to Furman from the opposite side of the country and frequently asked with some perplexity why, I became interested in the geographic makeup of the student body. Taking this and running with it, I developed the idea for this project. Arguably even more important than where students originate from is where they ultimately end up after graduation. This analysis is meant to provide information for both current and prospective students as it relates to them. Does the fact that Furman was a predominately regional school up until quite recently, and still draws heavily from a four-state base, have a profound effect on the distribution of its graduates? This question, among others, is addressed in the findings presented here. As a reference for comparison with the resultant charts and maps, a map of population distribution in the eastern US is displayed at right. This factor must be taken into account to some extent in interpreting the results and provides a reference point for observable trends. In addition to population distribution, this analysis also takes into account counties with high economic vitality and their correlation with migration patterns.

## Methods

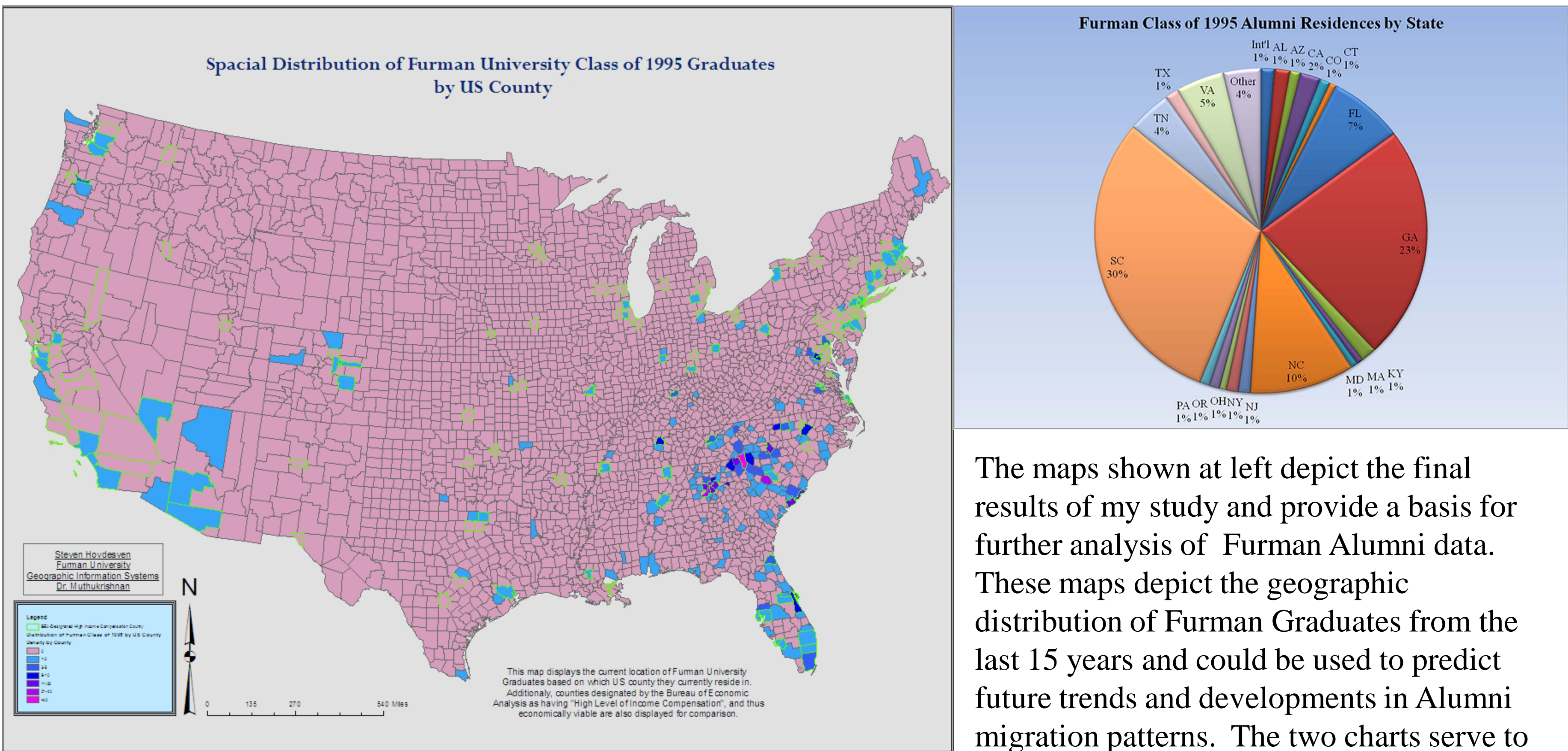
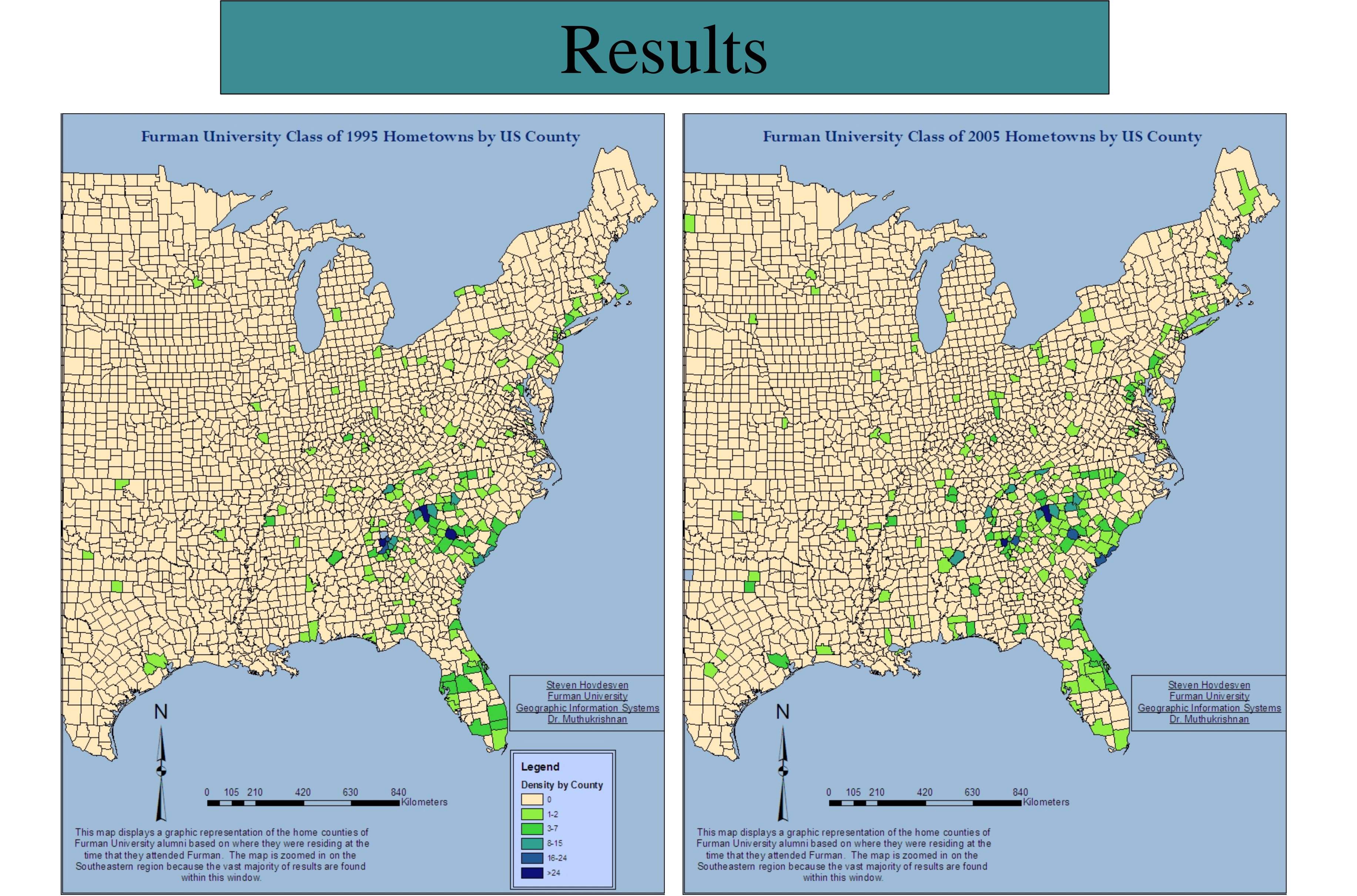
My approach to this project required the collection of a large amount of relevant data which I then compiled and manipulated in order to display important trends. I was very much so dependant on the assistance of both the Alumni office and the Department of Academic Records in acquiring and sorting through the large amounts of data needed for the project. My initial steps consisted of planning and requesting data. I determined that the graduating classes of 1995 and 2005 would serve as good indicators for wider trends and therefore collected information regarding status and location of these individuals as well as data concerning their field of study and home address while attending Furman.

The next step was to compile this data into an effective and useable data table using Microsoft Excel's database features. This process consisted of determining the county associated with a particular address or hometown of a student and then consolidating this information in order to determine numbers by county. This step was very time intensive and required scrupulous detail in organizing the data into a single table compatible with ArcGIS.

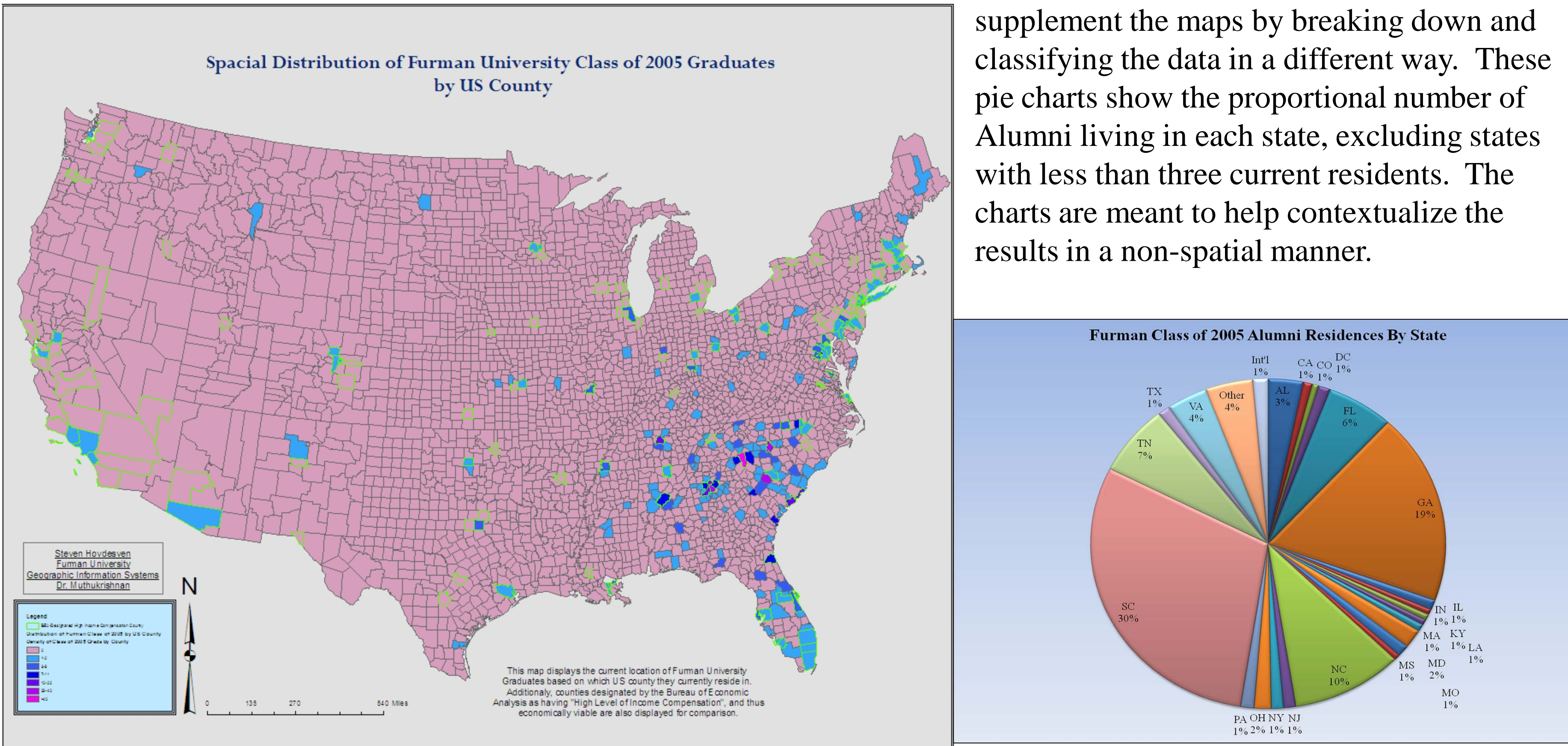
The third step involved the process of searching through available government and census records in order to find some data that correlated well with what I had observed in that collected thus far. Two data sets proved to be quite interesting when compared. I decided to include a data layer displaying counties designated as High income Compensation, which takes into account both the GDP and industry of the county.

Finally, I began to produce the final products, the maps and related charts themselves. After a great deal of tweaking colors and manipulating legends and other features, I came up with five maps and two pie charts which I feel best display the data trends that I am attempting to emphasize.

## Results



The maps shown at left depict the final results of my study and provide a basis for further analysis of Furman Alumni data. These maps depict the geographic distribution of Furman Graduates from the last 15 years and could be used to predict future trends and developments in Alumni migration patterns. The two charts serve to supplement the maps by breaking down and classifying the data in a different way. These pie charts show the proportional number of Alumni living in each state, excluding states with less than three current residents. The charts are meant to help contextualize the results in a non-spatial manner.



In transitioning from a spreadsheet format to the final maps in ArcGIS, several key trends became apparent, some of which were quite surprising while others were rather predictable. The visual representation of the distributions in each of the four resultant maps reiterates the fact that Furman students and graduates continued to be highly concentrated in the Southeast. However, the student body also drew from and has a strong presence in both Florida and the New England/Mid-Atlantic states. Graduates, as a rule, also display a pattern of redistribution from primarily rural or sparsely populated counties in Southern states to regional metropolitan/urban areas such as Charlotte and Charleston. As far as discrepancies between the 1995 and 2005 equivalents, fewer existed than I would have initially assumed. As a general rule, there were no drastic differences in the data, however, the 2005 data does indicate a trend towards a less regionally-concentrated distribution. This observation applies to both the hometown and current residence data.

## Discussion

This data can be interpreted in a number of different ways; however, my analysis will focus primarily on the increased geographic diversity seen both after graduation and over the course of the decade. While there is undoubtedly a shift in the concentration of Furman Alumni in both cases, neither dynamic really provides a satisfactory explanation of what is driving these changes. Upon further research and additional analysis of the results, the trends that I found to be most important were A) the tendency of Graduates to gravitate back to their home regions, even 15 years after their graduation and B) the less pronounced but still visible movement of a minority of graduates westward. This first observation can be, in part, explained by Furman's well-respected reputation in the home region of many of the Alumni and their desire to take advantage of the more numerous job opportunities in thriving urban areas across the South, particularly Atlanta, Charlotte, Charleston, Jacksonville and Greenville. The second observable trend worth noting, westward migration, correlates very highly with counties shown to be thriving economically. Virtually all counties containing Furman Graduates, regardless of year, in the Midwest or west are designated as having both a high population and thriving industry. This leads me to believe that, while many Furman grads are willing to relocate to distant regions, they typically do so only in prosperous areas. This contrasts, to a certain extent, with patterns in the Southeast, where, at least in many cases, graduates still return to their less economically developed home counties. Even though a large proportion of Alumni currently residing in the south chose to relocate to larger urban counties, likely in search of higher paying jobs, it is apparent that there is a certain reluctance to leave the region from which they came. Although there does seem to be a reversal of this particular trend in effect, judging by the results of this study, a sudden or drastic shift in geographic redistribution seems quite unlikely in the near future.

## Conclusions

This study definitely sheds some light on the geographic properties of a Furman education, in that it provides an indication of exactly where students are taking their degrees, and to what extent their college education has influenced their choice in residence. This data alone, however, provides only a brief look at the dynamics of migration and could be expanded to include any number of other factors or time periods. What this study serves to do is establish a basic understanding of the regional and national distribution of Furman Alumni, thereby highlighting the University's role in dispersing its students, as well as the more pronounced effect of providing an incentive to graduates to remain in the southeast. Further research on this topic could definitely prove useful for the future reference of current and prospective students as well as the alumni themselves.

## Acknowledgments

This project would not have been possible without the help of both Dr. Muthukrishnan and a number of committed members of the Furman community. First and foremost, I would like to thank Tom Triplitt, director of Alumni Association for his numerous contributions. Additionally, I would like to thank Darlene Kleckley of the Alumni Association for her hard work in compiling data. Finally, I would like to thank both the Department of Academic Records and the Department of Planning and Institutional Research.

## References

Furman University Department of Planning and Institutional Research

<http://www.furman.edu/planning/>

United States Bureau of Economic Analysis <http://www.bea.gov/>

## Data Sources

ESRI Data & Maps [CD-ROM], 2005. Redlands, CA: Environmental Systems Research Institute.

Furman University Department of Academic Records-Commencement  
Catalogue, 2005 and 1995

Furman University Alumni Association Alumni Database

US Department of Commerce: Bureau of Economic Analysis Regional Economic Accounts: County Compensation by industry, 2007.

[http://www.bea.gov/newsreleases/regional/comp/comp\\_newsrelease.htm](http://www.bea.gov/newsreleases/regional/comp/comp_newsrelease.htm)

### Projection Datum Information

Coordinate system: USA\_Contiguous\_Albers\_Equal\_Area\_Conic

Datum: GCS\_North\_American\_1983