

Spatial Demographics of the Furman Faculty

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Abstract

Furman University thrives to admit a diverse student population, culturally, economically, and in many other ways. The admissions office knows the number of students from each state, their sex, their race, their average SAT scores, and plenty of other useful facts about the diversity of the student population. The students, however, do not know as much about the diversity of our 294 full time faculty members. I was inspired to analyze the demographic characteristics of faculty members when I read in the school newspaper that Furman has a much lower percentage of female professors than comparable liberal arts universities. This project is the beginning of a spatial analysis of demographic information about our professors such as what state they were born in, in what states they received their degrees, their gender, their race, their political ideology, and their religiosity. It also tracks the distribution of professors across the country at the undergraduate degree, graduate degree, and professional degree levels. This analysis may help Furman University recognize the existing diversity as well as recognize areas that may need improvement.

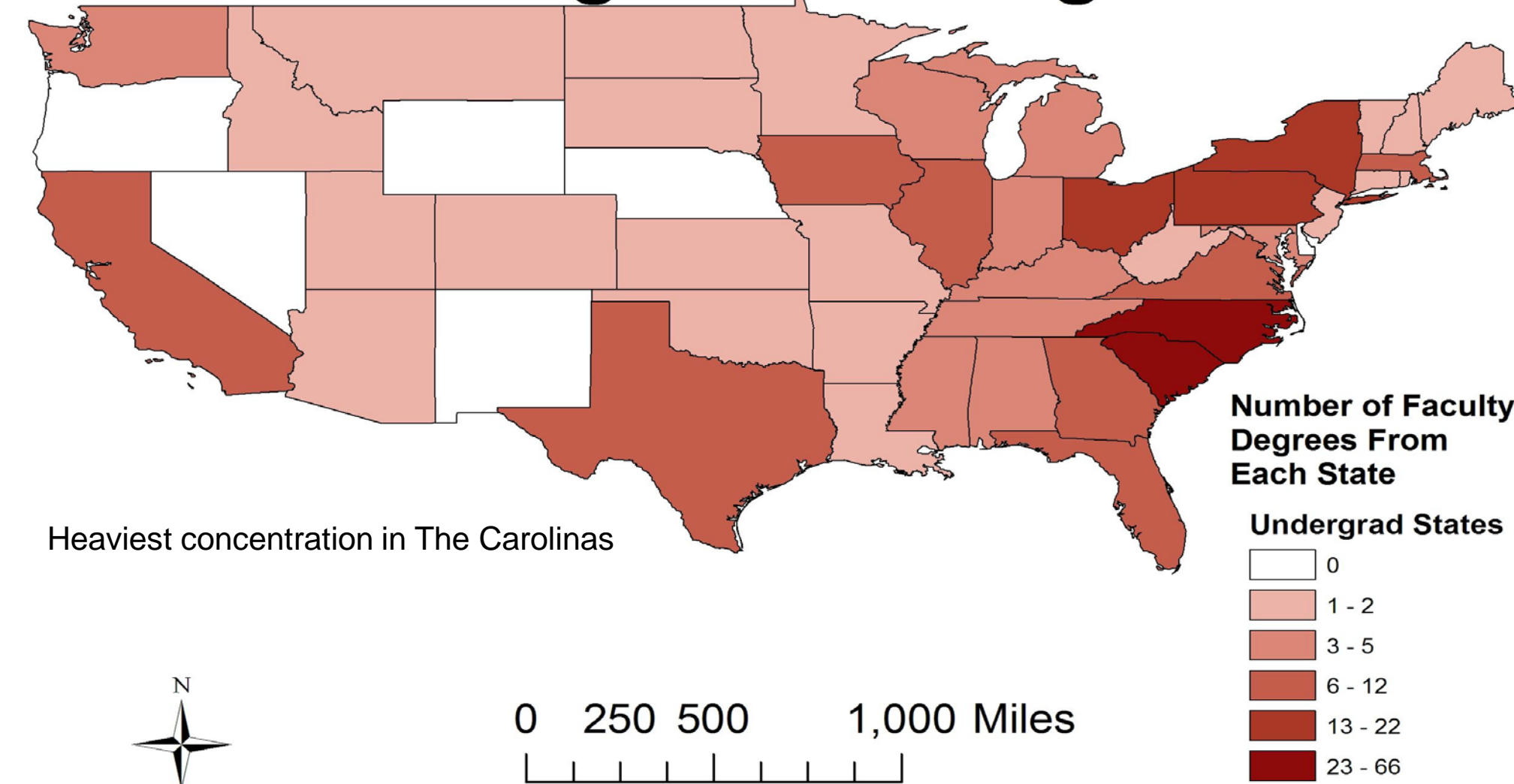
I. Introduction

Most in the Furman community know that there are more male faculty members than female, but they probably have no idea about how our male and female faculty members are dispersed across the country in terms of home state. Most people believe that humans are heavily influenced by their surroundings and that surroundings help develop individuals. This belief inspired me to use faculty member's home state to see if it would give any insight into the professor's demographics. The only hypotheses that arose about the home state indicating other demographic variables were based on stereotypes, such as "those who grow up in the south are more likely to vote Republican and be religious than those not from the south." A more interesting hypothesis arose when thinking about the general movement of faculty members from their home state to the universities where they obtained their degrees. The hypothesis is that the majority of faculty members were raised in the South, they went to receive an undergraduate degree in the South or more specifically South Carolina, and then they dispersed around the nation to receive their masters and professional degrees before returning to South Carolina to teach at Furman.

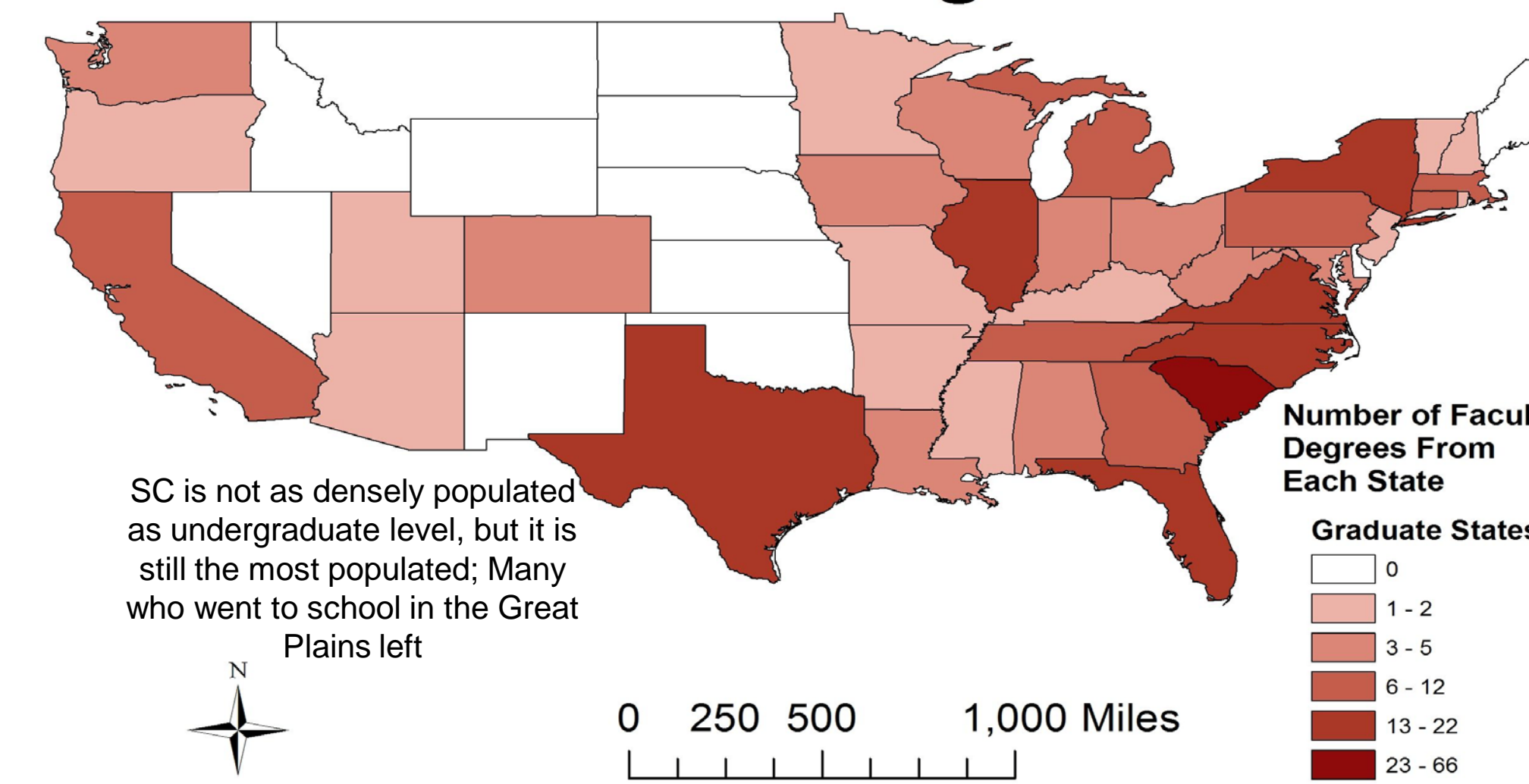
II. Methods

The Furman University catalog was used to locate the schools that each faculty member attended for their undergraduate, graduate, and professional degrees. This data was entered into Microsoft Excel and was then coded with the corresponding state for each school. The data was then analyzed to determine at each level of education, undergraduate, graduate, and professional, how many faculty members received their degrees in each given state (and the District of Columbia). A survey was created to receive the rest of the demographic information that was necessary for the project. In order to disseminate a survey to the faculty members, it was necessary to receive an individual Institutional Review Board (IRB) certification along with survey approval from the Furman IRB. When the results from about 130 faculty member responses (those who were raised within the United States) were received, the answers were coded in Excel to determine how many faculty members from each state responded in a similar way. The data was then added to a GIS database of the United States so that it could be analyzed spatially. Choropleth maps were made to show the distribution of faculty members across the country at each level of education. A choropleth map was then made to display the number of faculty members from each state. Then pie charts and bar graphs were overlain on the state shape file to display the other demographics, such as race and sex. Google Earth was then used to make a video displaying the path of each faculty member from their professional school to Furman. Google Earth was also used to make a video of the undergraduate, graduate, and professional degree 3 dimensional data, which displays the amount of faculty members who received their degree in each state.

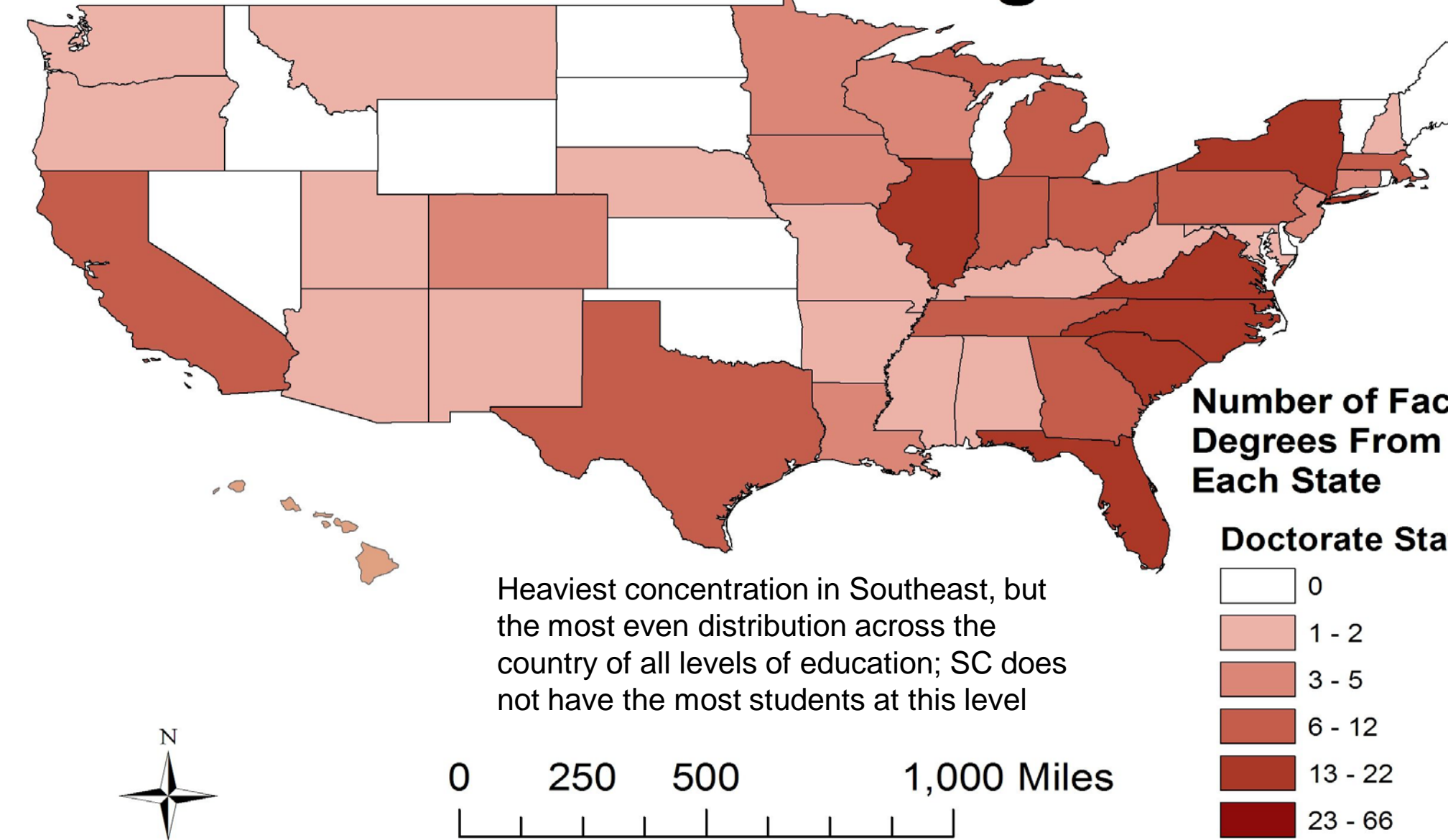
States Where FU Faculty Received Undergraduate Degrees



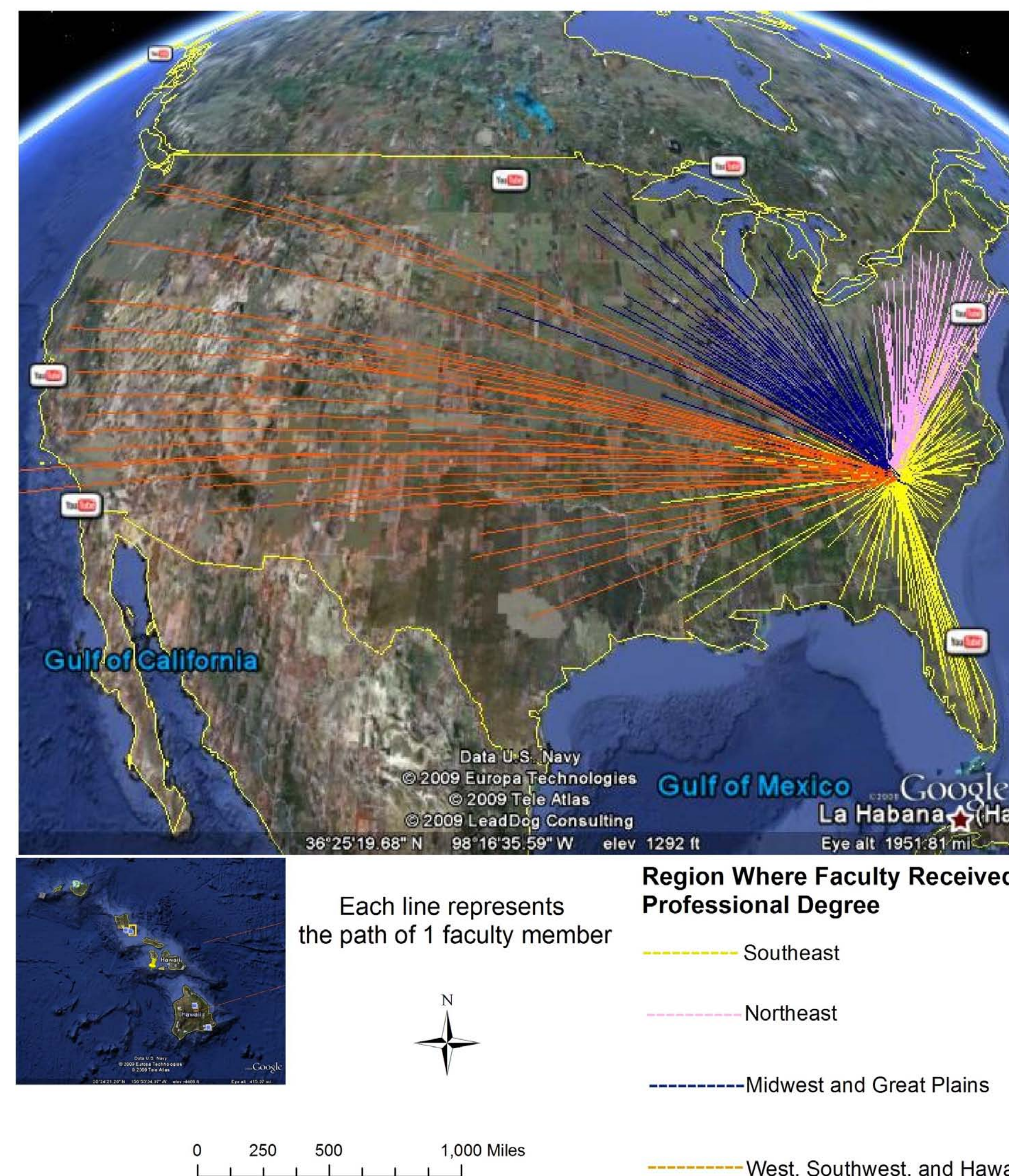
States Where FU Faculty Received Graduate Degrees



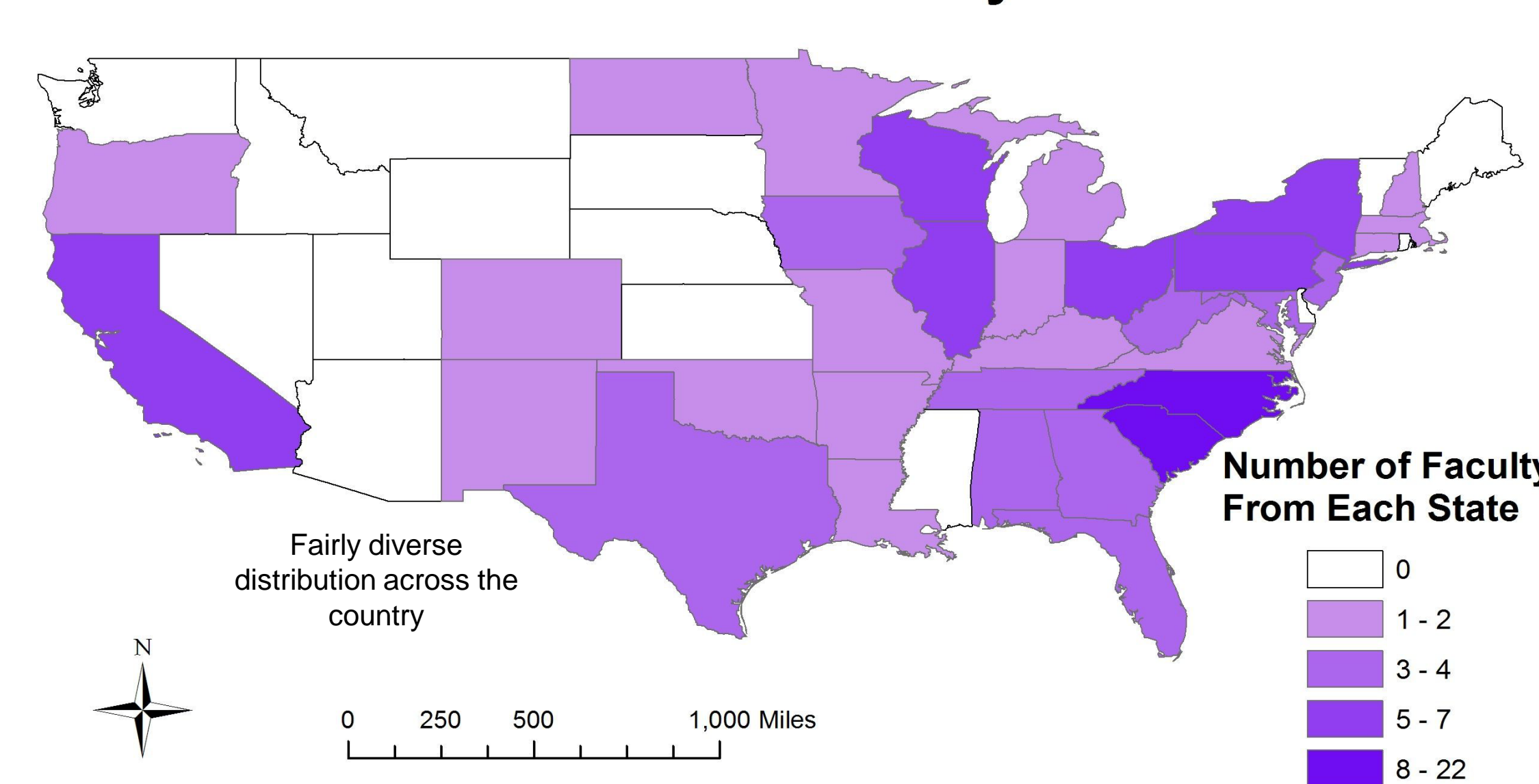
States Where FU Faculty Received Professional Degrees



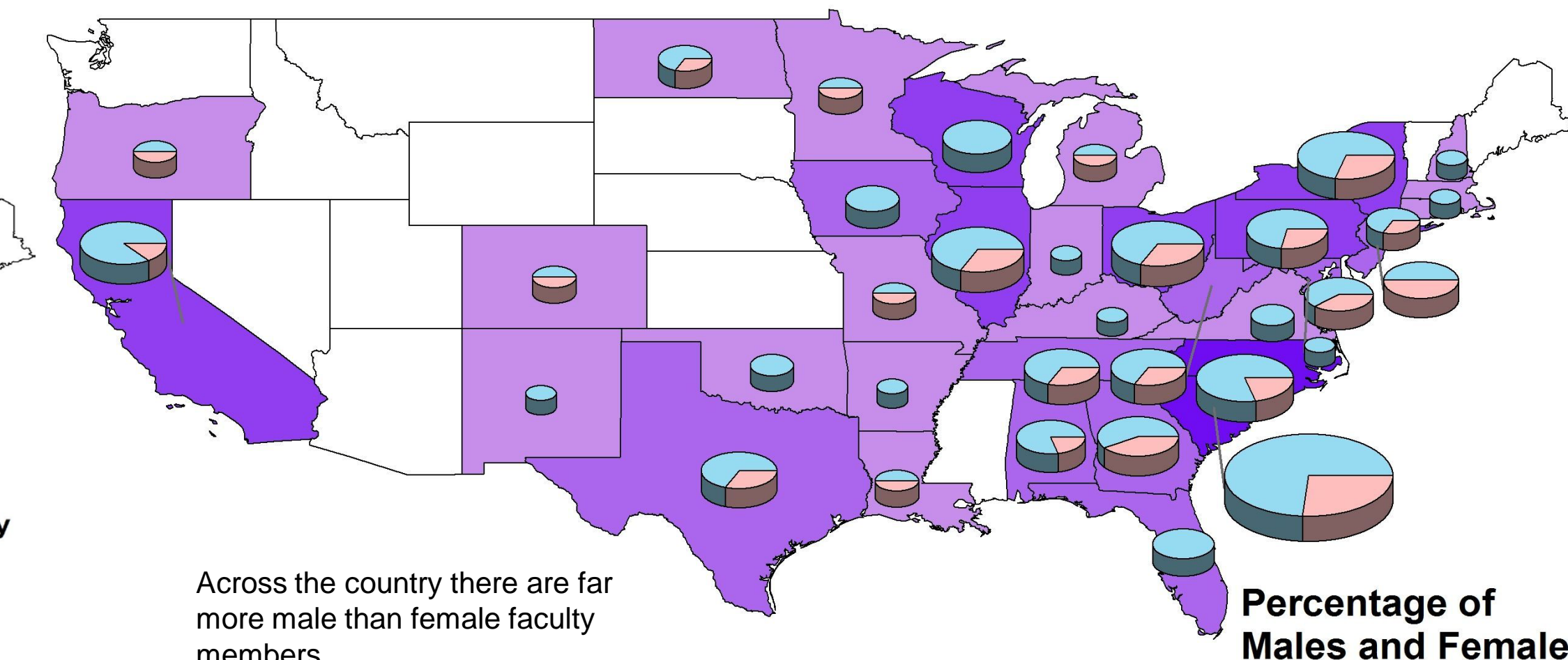
FU Faculty From Professional School to FU



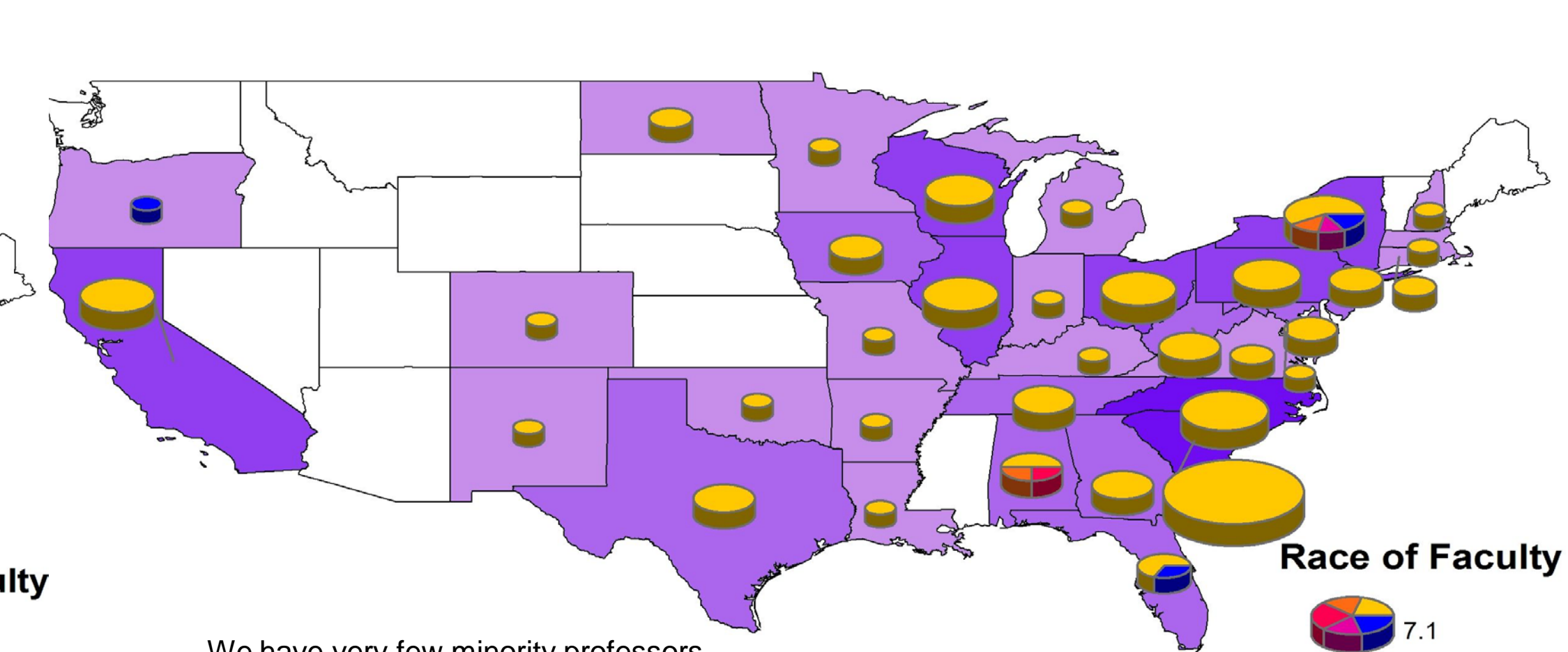
Home State of 130 Faculty Members



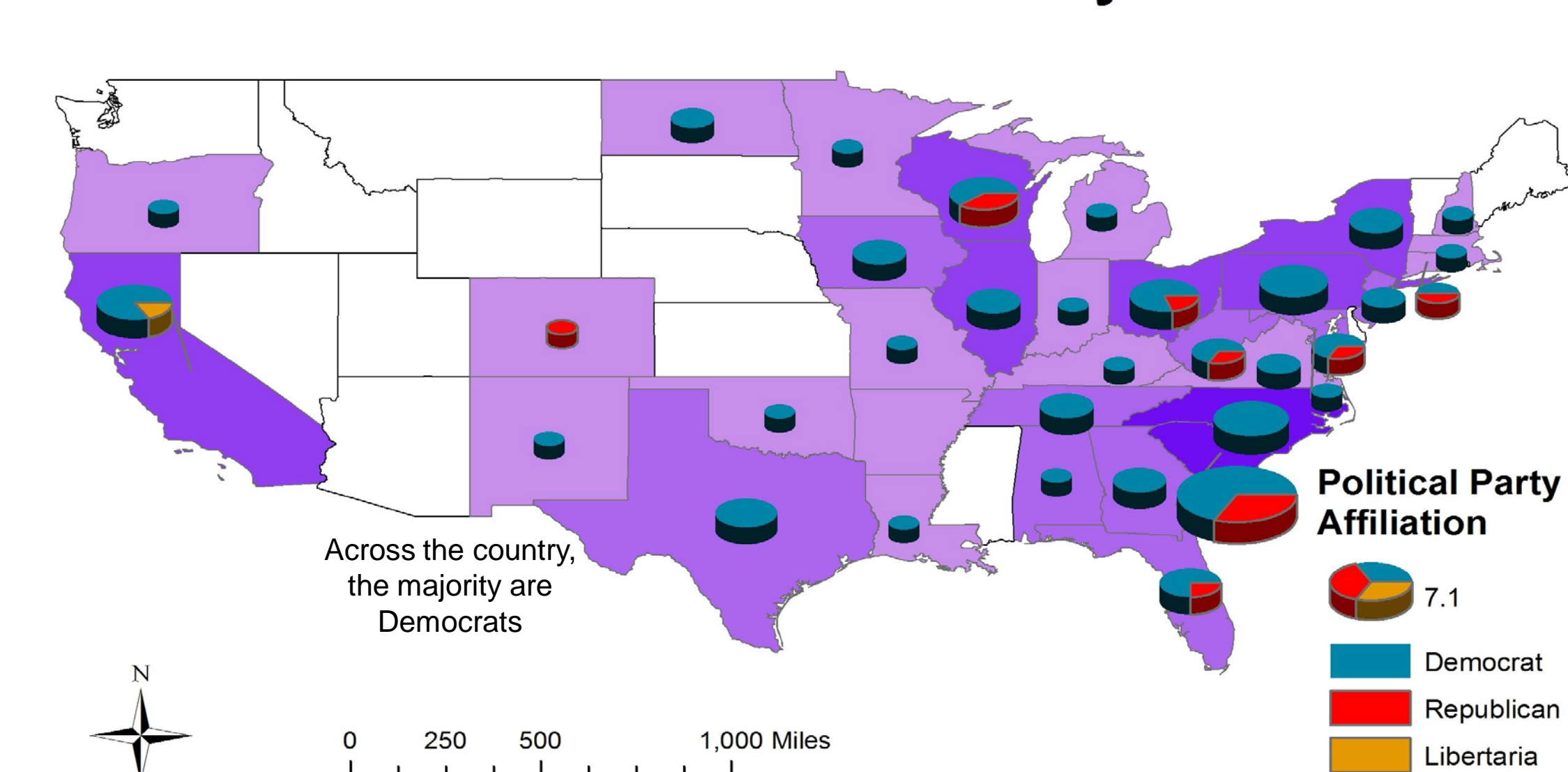
Percentage of Male and Female Faculty Members From Each Home State



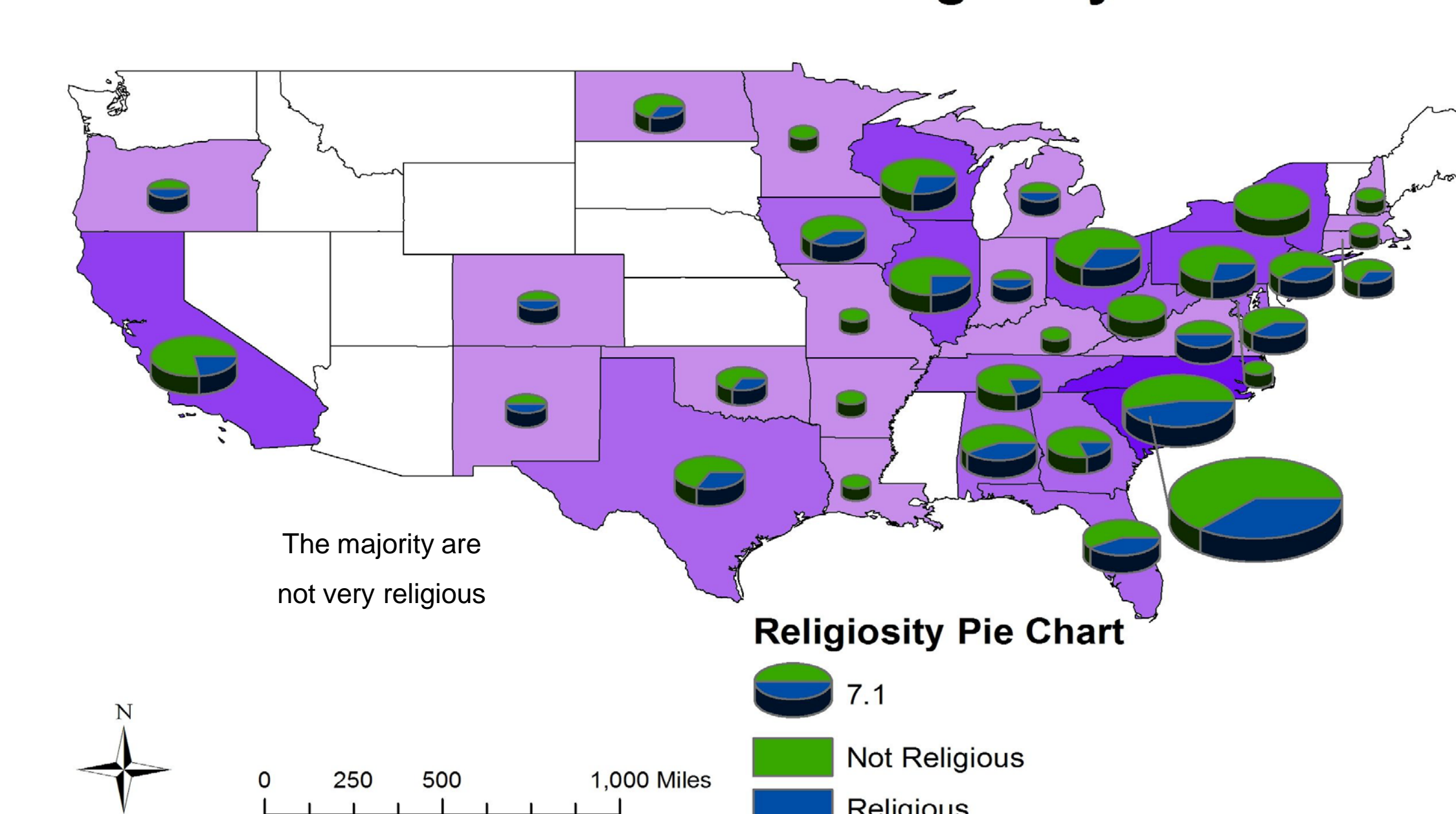
Home State and Race



Home State and Political Party Affiliation



Home State and Religiosity



III. Results and Discussion

Furman's Faculty is much more spatially diverse than was originally expected. As the majority of the 130 survey respondents are from South Carolina and the South, there are still many others who come from areas along the entire east coast, as well as some from the Midwest, Texas, and California. It is difficult, however, to draw definite conclusions about the spatial diversity of the Furman Faculty when there was only a 43% response rate from faculty members. Our female professors, however, seem to be coming from just as diverse of an area as the male professors. This was contrary to what was expected because of a previously study (Cooke, 2003), which that noted that women do not travel as far as men to establish a career. The faculty is not very racially diverse. Only 7 of the 130 respondents classified themselves as anything other than "White." Faculty members from New York are the most racially diverse, as 3 of 8 of them are minorities. The faculty seems to be overwhelmingly affiliated with the Democratic Party across the entire country. Based on my religiosity predictor, the majority of the faculty is not very religious. The faculty members that appear to be the most religious are from the states of South Carolina, North Carolina, Alabama, and Florida. Faculty members are heavily centralized in The Carolinas for their undergraduate degree, as well as North Carolina, Ohio, Pennsylvania, and New York. This is most likely due to the fact that many faculty members attended Furman University, and because there is an abundance of good schools in the other mentioned states. At the graduate level, there is more dispersion about the country as more faculty members left South Carolina and the Great Plains. This is probably because they had to travel farther to attend a good school for a specialization degree in their subject of interest. At the professional degree level there is even more dispersion around the country and this is the first level of education where South Carolina does not rank highest in the number of faculty members who attended school there. The animated video which was created in Google Earth shows that there is about an equal number of professors who received their professional degrees in the Midwest and Northeast, and the number of faculty members who received their professional degree in the Southeast is only slightly higher than those from the Northeast and Midwest.

IV. Conclusions

- The majority of faculty members are from the East Coast and Midwest
- More faculty members attended undergraduate and graduate school in South Carolina than any other state
- Faculty members moved about the country for their graduate degrees and they dispersed even more so for their professional degrees
- In sum, only about 30% of the faculty respondents were female; this is less than the national average of female faculty members at liberal arts colleges
- Based on responses, our faculty is 90+ percent White
- The indication of a faculty member's home state was not a good indicator of political party affiliation, but the vast majority of faculty members are Democrats
- The majority of faculty members are not religious and those from the Northeast are slightly less religious than the rest
- It is impossible to make absolute claims about my data because I only have responses from 43% of the faculty
- Furman's faculty members are quite diverse in the places they are from and where they have been, but the majority of them are white, non-religious, Democrat males

V. References

- Thomas J. Cooke, June 2003, *Family Migration and the Relative Earnings of Husbands and Wives*, pp. 338-348, *Annals of the Association of American Geographers* Volume 93,
- The Paladin Newspaper, Google Earth Tutorials, ArcGIS Tutorials, 130 Faculty Respondents, Furman University 2008-2009 Catalog

VI. Acknowledgements

Thanks to Dr. Rasmussen for helping me with my IRB certification; to Dr. Suresh Muthukrishnan for guidance and advising along the way; to Mike Wisinski for advice on how to organize and best display my data; to the 130 faculty members that responded to my survey; to all my classmates who helped me out during the times of struggle while using ArcGIS