

Final Report to the Office of Research, Indiana University South Bend

by

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Describing work completed during the Summer of 2003 on the project titled

New Measures of Religious Competition/Similarity among U.S. Denominations

Abstract from Research Proposal: I am requesting \$8,000 during the summer of 2003 to develop, for all U.S. counties, an alternative index of the religious competition that particular congregations and denominations face from other "similar" religious groups within the same county. The resulting index will be used to advance a currently stalled, but important area of research within the sociology of religion exploring how the religious context of geographic areas affects the behavior of individuals and religious groups in the same area. The work will draw on the approximately 40,000 U.S. respondents to the cumulative General Social Surveys (done every one or two years since 1972) and on data from an attempted census of churches and church members in every county of the U.S. done concurrently with the U.S. census for the past 30 years. The work will form the basis of an article attempting to "map" the "social locations" of U.S. denominations, and the index of competition will be a crucial tool in my planned sabbatical research (due to begin in the fall of 2003).

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### **1. Description of Grant Related Activity.**

As stated in the abstract, I purchased the cumulative General Social Survey (GSS) on CD. I first identified 69 denominational labels in the GSS data that had at least 30 people (from among the more than 40,000 adults interviewed in cumulative GSS between 1972 and 2002) who said they belonged to that religious group. Using information from questions about switching denominations from age 16 to the time of the interview, and information on religion of spouse and religion of spouse at age 16, I was able to examine how frequently people in different religious groups switched from one group to another or married people from another religious group. I also used questions on the denominational affiliation of the respondent's five closest friends to add additional information on how often friends cross denominational boundaries between each pair of (the 69) denominations.

I spent much of the time during the summer experimenting with different ways of calculating the best index of how similar and different each denomination is based on the above information. The goal was to have the index indicate greater similarity when there is lots of switching, intermarriage, and friendships, among a pair of two denominations and greater dissimilarity if members of two denominations seldom intermarried, formed friendships, or switched from one

denomination to the other. I settled on an index of “distance” in social networks based on the work of a sociologist, Ronald Burt.

In order to apply these “distance” measures to data on churches and church membership for each U.S. county (a data set known as the Glenmary data) I had to merge the 69 denominational groupings into 36 denominational categories so that I could assign all the denominations in the Glenmary data to categories of denominations in the GSS. I then had to recalculate the index of social distance (based on the switching, intermarriage, and friendship data) for each pair of the 36 denominational groupings.

The plot in figure 1 below is a graphical representation of the “distance” between each pair of denominations. It is created by a procedure known as multi-dimensional scaling (MDS). MDS takes information on distances between objects (in this case denominations) and tries to plot each denomination so that it is plotted close to denominations that are similar (not very distant) and far away from denominations that are very different (more distant). In order to plot all the distances between each pair of denominations into only two dimensions there is necessarily some distortion, but MDS tries various solutions until it finds a plot of all denominations that minimizes any distortions. One can ignore the label and meaning of the vertical and horizontal scales and focus on how far apart different denominations are. If two denominations are close to each other in the plot, that means that there is more switching, intermarriage, and friendships among members of the two denominations. Denominations that are far apart have very little social interaction or exchange of members.

A key to the denominations (without a lot of explanation) appears on the next page.



The denominations that are primarily African American are plotted in the lower left side, Black Baptists, BBapt, Black Methodists, BMeth, Black Pentecostals, BPent, and Muslim (which is mostly U.S. born African Americans). Notice that denominations that are primarily composed of middle class whites tend to be plotted in the upper and right hand side of the plot., e.g., United Church of Christ, MUCC, Unitarian Universalists, UU, Episcopalians, MEpisc and the Lutheran and Presbyterian groups. Notice that people with no religious affiliation are plotted near this latter group of denominations on the right side since these generally more liberal white denominations are more likely than other denominations to lose people to non-affiliation. Catholics, Jews, and Christian Scientists are plotted farther away from other denominations because they have less intermarriage and switching with other groups than one would predict based on their sizes, but Muslims have even fewer cross-denominational ties and are plotted out by themselves. The Christian Reformed Church, EHXtnRef, is a very ethnically Dutch denomination located mostly in western Michigan that also has very little intermarriage and switching with other denominations (given its size). In general, more theologically conservative groups are on the left side of the plot while more theologically liberal groups are on the right side (with some important exceptions). There are many more important observations one can make about these results, but they go beyond the scope of this report.

I am now using the index of similarities and differences among denominations in my sabbatical research, funded by the Louisville Institute, to examine how much competition there is among congregations of different denominations in each U.S. county. This later research is in progress.

**2. Was I able to complete the project?** Yes, basically. I have completed the analyses that I proposed in the research proposal. I have not yet produced a paper or presentation from this work as I have been busy applying these results to my sabbatical research project.

**3. Planned Products.** I plan to write a paper describing the “map” of denominational similarities and differences described above. I’m anticipating that this will first be presented at the American Sociological Association meetings (if the paper is accepted) next summer (2004). I plan to submit this same, probably revised paper, to the journal *Sociology of Religion*. The index created last summer will be used in various papers and presentations arising out of my ongoing sabbatical research. After I have used the index of differences between denominations in several of these planned sabbatical projects, I plan to the index values available on my web pages so that other researchers can use the results in their own research projects.