ABSTRACT

The Importance of Economic Surroundings on Religious Adherence

Buster G. Smith, B.A.

Thesis Chairperson: Christopher D. Bader, Ph.D.

Sociological explanations of religious adherence tend to focus on characteristics of the individual. One exception is the largely discarded concept of relative deprivation. This study expands upon the premise of relative deprivation by exploring the role that the ecological economic characteristics of a community play in determining religious adherence. Independent analyses are performed at the county-level, with Evangelical and Mainline Protestant adherence rates as the dependent variable to test several associated hypotheses. A combination of U.S. Census and RCMS data from 2000 suggest that economic surroundings are important determinants of religious selection. In particular, income inequality has diametrically opposed effects on the adherence rates of Protestant denominations, with Evangelicals benefiting and Mainline groups suffering. Explanations include the need for boundaries and doctrinal claims of how the world functions.
The Importance of Economic Surroundings on Religious Adherence

by

Buster G. Smith, B.A.

A Thesis

Approved by the Department of Sociology

Charles M. Tolbert II, Ph.D., Chairperson

Submitted to the Graduate Faculty of
Baylor University in Partial Fulfillment of the
Requirements for the Degree
of
Master of Arts

Approved by the Thesis Committee

Christopher D. Bader, Ph.D., Chairperson

Charles M. Tolbert II, Ph.D.

Charles M. North, Ph.D.

Accepted by the Graduate School
May 2006

J. Larry Lyon, Ph.D., Dean
Copyright © 2006 by Buster G. Smith
All rights reserved
# TABLE OF CONTENTS

I. List of Tables iv

II. List of Figures v

III. Acknowledgments vi

IV. Chapter One: Introduction 1
   The Economy and Religion
   Income Inequality
   Evangelical vs. Mainline Protestant

V. Chapter Two: Data and Methods 12
   Socioeconomic Status
   Population
   Age
   Racial Homogeneity
   Income Inequality

VI. Chapter Three: Results 15
    Discussion

VII. Chapter Four: Conclusion 27

VIII. Bibliography 30
LIST OF TABLES

Table 1: Descriptive Statistics 18
Table 2: Regression of Evangelical Adherence Rates 19
Table 3: Regression of Mainline Adherence Rates 21
LIST OF FIGURES

Figure 1: Effect of GINI by Population on Evangelical Adherence 24

Figure 2: Effect of GINI by Population on Mainline Adherence 25
ACKNOWLEDGMENTS

I would like to thank Dr. Charles Tolbert and Dr. Charles North for their willingness to be part of my thesis committee. Their assistance both on technical and theoretical matters noticeably enriched the final product. I am especially thankful to the chair of my committee, Dr. Chris Bader, whose encouragement throughout the process was greatly appreciated.
CHAPTER ONE

Introduction

This study will examine the effects of economic surroundings on religious adherence. While the interaction of economics and socioeconomic status upon religion has long been of interest to sociologists, the theories tend to fall into one of two categories. First, many scholars have examined the ways in which economic status and religious belonging interact at the individual level (e.g. Neibuhr, 1929). For example, more educated individuals are typically more attracted to novel forms of religion (Stark and Bainbridge, 1985), while members of the middle-class tend to create these new religions (Kelly, 1992). A second strain of research has analyzed the socioeconomic position of religious denominations (e.g. Roof and McKinney, 1987; Coreno, 2002; Park and Reimer, 2002) as well as the economic circumstances from which particular religions form. Economic stratification of religious organizations seems to exist and persist in regards to general education, income and occupational status (Smith and Faris, 2005). Thus, research exists on how differences of socioeconomic status will lead to attraction to particular varieties of religion at the individual level and the stratification of religious groups along these same socioeconomic lines.

What is lacking from prior research regarding the interplay of economics and religion is an investigation of the ways in which local economic realities influence the religious choices of individuals. I intend to expand upon these two sets of research by examining the influence of the economic characteristics of communities on religious individuals and organizations. By building upon prior theories concerning relative
deprivation I will examine the effect of income inequality upon community-level 
religious adherence. I will attempt to answer the question of how income inequality 
influences the success of particular forms of religion. Furthermore, are there doctrines 
and religious histories that flourish in the presence of inequality or economic parity?

As a means of examining the interaction of economic circumstances with 
religious adherence, I will utilize 2000 county-level census data in conjunction with the 
2000 Religious Congregations and Membership Study. The analysis will be made at the 
county level, both for convenience and to ensure specificity of region.

*The Economy and Religion*

The connection between economics and the sociology of religion has existed 
since the inception of the discipline. The relationship has been explained in both 
directions from Marx and Engels’ (1959) claim that religion compensates for economic 
shortcomings to Weber’s ([1930] 1999) oft cited theory that Protestant doctrine 
motivated capitalism. More recently, studies have examined the socioeconomic standing 
of religious denominations within society (Smith and Faris, 2005), the role of individual 
economic improvement in motivating a desire for a religion with less tension (Stark and 
Finke, 2000, p. 204) and a host of other issues. One gap in recent analyses is an 
examination of whether and how ecological economic characteristics influence the 
religious actor. For decades such a theory was embodied by relative deprivation, but as 
the related hypotheses have been disproved, or at least significantly weakened, no 
alternatives have arisen. While this study will attempt to present such an alternative, it is 
first necessary to examine why the predecessor failed.
Originally the connection between economic characteristics of the individual and religious preference focused primarily on deprivation. Karl Neibuhr (1929) was an early proponent of the deprivation thesis as an explanation for particular forms of religious belief and adherence.

Other sects, whose origins are not so readily identifiable with economic movements, have preserved their separate character because of the economic status of their members and are distinguished from their sister denominations less by doctrine than by their wealth and the consequent conservatism of ethics and thought (p. 29).

This perspective saw the rewards of religion as an alternative measure of merit for those who are not financially successful. Economic deprivation is thus alleviated through an emphasis on a worldview that sees success in spiritual terms, and otherworldly benefits that are greater than any material reward ever could be. It is important to note that deprivation need not be limited to financial matters, or even issues of prestige. For example, Glock (1964, p. 27-28) defined five different forms and sources of deprivation, each of which should impact the formation of religious organizations in unique manners.

Stark (1972) demonstrates that the economically deprived seem to be more religious than affluent members of society are, but that the explanatory power of economic factors is limited. Furthermore, this correlation only exists for those who are already churched, which is impacted by the lower rates of adherence among the poor (1972, p. 500).1 Similarly, although Demerath used the term status discrepancy in describing the disjoint a person experiences with regards to education, occupational prestige and income, he generally found limited support for its impact on religion (1965,

---

1Interestingly, not having a religious affiliation rather than not belonging to a church is positively associated with socioeconomic status as measured by education, income and occupation (Welch, 1978).
p. 127). Status discrepancy was sometimes associated with higher rates of attendance among Protestants, but it failed to correlate with any other measures of religiosity (1965, p. 173).

An associated issue is the relationship between socioeconomic status and religious salience. Salience, or lack thereof, can exist independently of any particular religious affiliation or even of religious affiliation in general. Even so, there are relationships between the scope of religion in one’s life based upon the type of religion a person practices. Thus, it is significant that at least one study found occupational prestige, but not income to correlate negatively with religious salience (Wimberley, 1984).

A modification upon the deprivation thesis exists in the form of theories that proposed relative deprivation as the matter of importance. Rather than a lack of wealth as the motivating factor for choosing a religion, deprivation in regards to one’s group of reference becomes central. One important consideration is that most studies regarding possible associations between deprivation and religious affiliation have no means of determining whether relative deprivation exists. Thus, when Stark (2004) provides evidence that deprivation and asceticism are unrelated it is in regards to absolute levels of wealth rather than relative perceptions. Even in studies of relative deprivation, income, wealth or some other measure of economic success is frequently used as a proxy for deprivation, and members of society with low levels are considered relatively deprived. While these people certainly are deprived, it is possible to consider oneself deprived without being anywhere near the bottom strata of society (regardless of how that is measured). For example, the woman who can only afford a Ford while her friends drive BMWs, may consider herself deprived.
This inability to distinguish between relative and absolute can have important consequences for analyses of deprivation. For example, Bainbridge suggests that “...we should not expect relative deprivation to explain affiliation with novel religious movements.” (Bainbridge, 1997, p. 167). However, this is based on results from a study (Bainbridge, 1989) that only measured household income, not whether individuals experienced deprivation relative to others in their community. There certainly is a need to understand absolute deprivation and the current study will control for it, via rates of poverty, but it is important to remember that relative deprivation can exist independently of absolute deprivation.

While relative deprivation was a key element of explaining religious belief and adherence during the first half of the twentieth century it has since lost much of its weight within the sociological study of religion. To a large extent, researchers have abandoned studies of the role that relative deprivation plays in determining religious adherence, both in regards to the choice to believe in any religion and the selection of a particular religious tradition. This abandonment may be well founded. For example, if we treat the GINI coefficient of income inequality as a measure of the relative deprivation in counties and compare it with overall religious adherence rates as measured by the RCMS at the county level in the United States during 2000, there in fact is no significant relationship.

I propose resurrecting the central assumption of relative deprivation theory without presuming that the particular claims are accurate. In particular, the current study will reinvestigate the role of economic circumstances as they apply to the success and failure of particular types of religious movements. In this case evangelical and mainline Protestantism will be examined because their similar histories but different doctrines.
This study is intended to move beyond relative deprivation in several significant ways as will become clear. Most notably, the measure of importance will be the level of income inequality within a community. This is not meant as a proxy for relative deprivation, but an important element of determining religious adherence in its own right. This is significant, because income inequality is an easily quantifiable quality of societies and measurements exist across countries and across time.

*Income Inequality*

Income inequality is a measure of the economic disparity that exists within a population. One alternative measure is wealth inequality, with the two items being highly correlated but independently significant. For the current study income inequality is quantified exclusively by using the GINI coefficient. Within America, income inequality has proceeded along an S-curve of sorts over the past two-hundred years. Following the Kuznets curve, (Kuznets, 1965) income inequality rose until the late 1800s and then began declining during the 1920s (Williamson and Lindert, 1980). However, this trend began to reverse after 1970, with a return to increasing income inequality, dubbed the “Great U-Turn” (Harrison and Bluestone, 1988). Explanations for this increase in inequality include a rise in high skill jobs that leave unskilled workers unemployed, or a polarization of employment that has no place for middle-wage workers (see Morris, Bernhardt and Handcock, 1994).

The effects of income inequality both in the United States and around the world are widespread and pronounced. For example, numerous studies have demonstrated a link between income inequality and both crime and health (e.g. Kaplan et al., 1996; Kennedy, Kawachi and Prothrow-Stith, 1996). Blau and Blau (1982) found that in
metropolitans areas income inequality is not only correlated positively with murder and assault, but also mediates the effects of poverty. This relationship between murder and income inequality also exists internationally (Pickett, Mokherjee and Wilkinson, 2005).

Income inequality is hypothesized to cause poorer health and increased mortality via a lessening of social capital as measured by voluntary organization membership and social trust (Kawachi et al., 1997). However, the relationship between mortality and income inequality has been challenged as the exception rather than the rule (Lynch et al., 2005).

**Evangelical vs. Mainline Protestant**

Since the aim of this study is to examine the different effects of income inequality for two types of Protestantism, it is important to understand why we might expect to find a relationship between income inequality and respective adherence rates. In particular, what differences between these religious traditions would relate to different interactions with income disparity? Previous literature suggests that three possible explanations.

First, evangelical and mainline protestant groups may be causing changes in the level of local income inequality, both intentionally and unintentionally. Second, each religious tradition’s ethos may be more evidenced by particular economic environments. Third, evangelicals may be better adapted to capitalizing on the social boundaries that are created by higher rates of income inequality.

In regards to causality, there is evidence that while both religious groups may aim to assist the less fortunate, mainline Protestants are more successful at a societal level. This stems from the tendency of American evangelicals to focus on fixing problems by assisting the individual, rather than changing the structural causes (Emerson and Smith, 2002).

---

\(^2\)For critiques and mediating factors in this relationship see Messner (1989) and Messner et al. (2002).
2000). In contrast, mainline Protestants have a long history of targeting structural causes when attempting to change society. This attitude appears in response to issues like environmentalism and racism (Moody, 2002; Verter 2002). Similarly, mainline organizations may be better equipped to overcome income disparity within their communities. Thus, in areas with high concentrations of a particular form of Protestantism, increases or decreases may take place in regards to income inequality.

A second way in which evangelical and mainline Protestantism may be related to income inequality is in regards to whether the religious expectations conform to the reality that believers experience. One way that religious adherents can come to trust a religion is by witnessing a world that conforms to the religion’s doctrinal claims and general ethos. For example, evangelical Protestant denominations tend to see the world as separated into distinct camps, the saved and damned, Christians and non-Christians. In turn, members are likely to be more convinced of the religion’s truth if they witness such diversity in their communities. This sense of embattlement is precisely what Christian Smith (1998) explores in *American Evangelicalism*. “...evangelicalism maintains its religious strength in modern America precisely because of the pluralism and diversity it confronts.” (Smith et al., 1998, p. 89). The explanation for this mechanism is that diversity generates stronger and clearer boundaries between ingroups and outgroups. In turn, strong boundaries reinforce the perceptions that one’s own group is superior, thus enhancing the sense of affiliation and commitment. I offer no argument to the explanation of evangelical success in the United States. To the contrary, income inequality provides but one more means by which the expected diversity is experienced. However, I suggest that the effects of such diversity are not uniform across religious
traditions, but rather contingent upon the particular religious doctrine. While evangelical
Protestants rely upon strong boundaries and tend to expect this separation in the world at
large, American mainline Protestants expect and strive for homogeneity of peoples.

While these efforts are often limited in their success, Mainline Protestants have
sought both racial and economic equality over the past several decades (Verter, 2002;
Steensland, 2002). This moral viewpoint is also reflected in the tendency for liberal and
moderate Protestants (what is here termed mainline) to be more open to extending civil
liberties and desiring racial justice, than conservative protestants (Roof and McKinney,
1987, p. 202). This tendency to see the world, or at least the ideal world, as unified and
equal may well influence the way that actual economic disparities influence the
credibility of mainline truth claims. In the same way that Evangelical Protestant
denominations should benefit from communities that exhibit differentiation, mainline
Protestant claims could be reinforced by the presence of equality. Framing these issues
in regards to economic matters leads to two independent hypotheses.

Finally, evangelicals may benefit the most from the increased potential for
boundaries within more economically diverse communities. The creation and
reinforcement of boundaries is an important way in which all voluntary organizations,
including religious groups, survive and prosper. American evangelicals tends to consider
boundaries a central part of reality and a feature, which is important to maintain.
Meanwhile, mainline Protestant groups tend to see boundaries as a hindrance to be
destroyed whenever possible. The most liberal denominations like Unitarian
Universalists (which are beyond even the mainline categorization) oppose religious
boundaries to the point that they recommend the exploration of alternative faith traditions by their membership.

In *Divided by Faith*, Emerson and Smith explicitly lay out the process by which Evangelicals maintain strong boundaries around their religious communities and credit their success to these boundaries (Emerson and Smith, 2000). The most important sociological processes in this boundary maintenance are social solidarity, similarity and homophily principles and status quo bias. Social solidarity is the connection people feel to those within their group, with more solidarity causing people to be willing to sacrifice more both in terms of money and time (Emerson and Smith, 2000, p. 143). Social solidarity is strengthened by similarity, because people tend to prefer being around others who are similar whether such distinction are defined by biological or perceived similarities. In turn, the homophily principle theorizes that social networks typically form among people who are sociodemographically similar, thus leading to voluntary association groups, like religious congregations, which are similar (Emerson and Smith, 2000, p. 147). Finally, status quo bias is the propensity to stay with what is familiar since it is typically the path of least resistance. This causes churches to stay segregated unless there is a strong push to change and for individuals to maintain their religious affiliation throughout life due to its familiarity (Emerson and Smith, 2000, p. 146). While these principles are at work within all religious groups and voluntary associations, Evangelicals have actually made a point of embracing them to the point of employing racial segregation when it helps in reaching out to more individuals (Emerson and Smith, 2000, p.150). Combined these processes have led American Evangelical denominations to maintain strong boundaries in regards to race and religious doctrine.
Hypothesis 1: Evangelical Protestant adherence rates will be higher in communities with higher levels of income inequality.

Hypothesis 2: Mainline Protestant adherence rates will be higher in communities with higher levels of income equality.

Even if these relationships exist, the question remains open as to whether the proposed mechanism of witnessed differentiation is accurate. For example, rather than people witnessing income equality and being more drawn to Evangelical doctrinal claims that predict such a world, another factor might mediate the results. Fortunately, the suggested relationship should be strongest in communities where people most directly are aware of, and experience, the level of income inequality. Thus, in areas with smaller populations people should be more aware of the true rate of income inequality or equality and in turn will be the most influenced in their choice of religious affiliation.

Hypothesis 3: The effects of income inequality on religious adherence will be strongest in communities with smaller populations.
This study relies upon two sets of data about counties in the United States from 2000, the U.S. Census long form information and the Religious Congregations and Membership Study (Jones et al., 2002). County level data was chosen partly for convenience, but also because it represents the level of the community at which individuals experience their economic surroundings. State level data would likely contain too much variation, especially within large states like California and Texas, while religious measures of adherence are effectively unavailable at any unit of analysis smaller than counties. In order to limit the relevant differences, this study will focus only upon two broad strains within a single religion, evangelical and mainline Protestantism. The RCMS data is used to determine adherence rates at the county level for both mainline and evangelical Protestants. The current analysis does not include Catholics, historically Black Protestant churches, Jews and other religious affiliations. For a complete listing of the denominations included within each Protestant group, see Steensland et al. (2000). Adherence rates are per 100 population, although several counties have rates of evangelical adherence above 100. This is probably due to individuals who attend church in a different county than the one in which they live.

Relevant measures from the US Census include total population, the GINI coefficient of income inequality, rates of poverty, education, median income, region of the country, population turnover, race, ruralness of a community, age, rates and type of employment. Beyond adherence rates, population and the GINI coefficient, all other
variables are meant as controls. This is to assure that income inequality is actually relevant and not simply a spurious effect due to its relationship with other aggregate and ecological qualities of the county. A key ecological factor that is missing from this analysis is a measure of religious pluralism, such as a Herfindahl index of religious monopolies. While many scholars have argued that increased religious pluralism will lead to increased religious adherence (e.g. Finke and Stark, 1988; Jelen and Wilcox, 1998), others claim the opposite effect exists (Bruce, 1999; Olson, 1999; Olson and Hadaway, 1999). More recently several scholars have demonstrated that any relationship that appears to exist is a mathematical artifact and not a causal effect (Chaves and Gorski, 2001; Voas, Olson, and Crocket, 2002). Because there appears to be no accurate method of measuring pluralism at the moment, it is not included in this study.

**Socioeconomic Status**

The relationship between socioeconomic status and religious choice has long been a source of study within the sociology of religion (e.g. Niebuhr, 1929; Pope, 1970; Weber, [1922] 1993). While some of these relationships like church attendance and social class are partly accounted for by more general voluntary participation, they continue to be relevant factors (Goode, 1966). Some findings indicate that higher education and prestige are associated with more church-like views, as opposed to sect-like attitudes (Dynes, 1955). Similarly, stratification exists across religious denominations, and appears to be persistent across generations (Smith and Faris, 2005). While it is not the intention of the current study to explore the relationship between individual socioeconomic characteristics and religiosity, it does use several county-level measures of SES as controls. These include education, income and poverty.
Each of these economic characteristics is associated with income inequality (see Nielsen and Alderson, 1997). For example, increasing inequality was one of the primary sources of increasing poverty in the United States during the 1980s and 1990s (Iceland, 2003). Similarly, educational systems can reinforce income inequality (Winnick, 1989, p. 207). To ensure that multicollinearity is not responsible for any apparent effects several separate models will be run for each dependent variable, one with the economic characteristics that are associated with income inequality and one without.

Population

The population of each county from 2000 is included in each model as a logarithmic transformation to account for skewness. Population should be relevant to this analysis in two separate ways. First, the presence of a larger population will increase the likelihood of social networks. Social networks are commonly cited as a significant element in both religious conversion and remaining within a faith (e.g. Stark and Finke, 2000). Second, people’s religious decisions will be affected by the presence of income equality or inequality within their county primarily when they are aware of how much equality there is. In counties with smaller populations, there will be more awareness of disparities, and thus a stronger effect. For this reason, an interaction effect of the GINI coefficient by the logarithmic transformation of the population is included in the model.

Age

We can expect age to have a positive effect on adherence with older members of society being more religious and therefore more likely to belong to a church. This may either be due to people becoming more religious as they age (Argyle, 1959; Argyle and
Beit-Hallahmi, 1975), what Stark and Finke (2000, p. 100) term the “principle of religious procrastination”, or a generational effect with older cohorts maintaining higher levels of religiosity throughout life (Miller and Nakamura, 1996; Tilley, 2003). Either way, the same effect should occur whereby counties with higher median ages will have higher rates of religious adherence.

Racial Homogeneity

In order to control for differences in the racial composition of counties a measure of racial homogeneity is included. Specifically a Herfindahl index is computed from racial proportions within the county, with white, black, Asian and Native American as the categories. This is similar to the standard method for computing religious pluralism.

Income Inequality

For the current study, income inequality is the independent variable of interest. To measure the level of income inequality that exists within a county, the census provided GINI coefficients are used. The GINI coefficient can theoretically fall between one, representing complete inequality, and zero wherein all households earn exactly the same amount of money. However, in the current sample the band of actual values is far tighter.

\(^3\)Health issues may serve as a mediating factor among older individuals to lower religious attendance (Ainlay, Singleton and Swigert, 1992), but not strongly enough to reverse the general trend.
CHAPTER THREE

Results

In total, information for all the relevant variables was available for 3,088 counties. Table 1 shows the descriptive statistics of the counties included in the subsequent analyses. Each characteristic is of the entire county, so means represent the mean of means across all counties. For the current analysis, the most important characteristics are Protestant adherence rates. Of the counties included in the following models, the mean rate of Evangelical Protestant adherence is 22.7 people per 100 people residing in the county. Mainline Protestant adherence rates are significantly lower at only 14.2 per 100,000 population. However, across counties there is quite a bit of variation with rates as high as 111.3 and 88.4 respectively.

Table 2 shows the results of modeling the rate of Evangelical adherence per 100 population, as an outcome of numerous ecological factors. This analysis is performed by using an ordinary least squares regression. Model 1 includes a measure of total population, region of the country, age, education, ruralness, population turnover, service sector employment, race and the GINI coefficient. Additional economic variables are intentionally excluded to assure that any apparent association between religious adherence and income inequality is not a mathematical artifact of multicollinearity.

As hypothesized, an increase in inequality as measured by the GINI coefficient is associated with an increase in the adherence rate of Evangelical Protestants. In particular, an increase of 0.1 in the GINI coefficient is associated with an increase in Evangelical adherence rates of 4.62 people per 100 population.
Another set of variables that explains much of the variation in adherence rates is region of the country where the county is located. The South has higher rates of evangelical adherence than any other part of the United States, and this effect continues within the current model. Adherence rates are the next highest in the Midwest, the West and finally the North. However, none of these region effects accounts for the role of income inequality in determining adherence.

Education is also an important predictor of evangelical adherence rates. More educated populations, as measured by completion of college, tend to have lower evangelical adherence rates. For every one percent increase in bachelor’s degrees within the county there is a decrease of 0.32 members per 100 population. As previous literature has hypothesized, median age is positively associated with evangelical adherence. Counties with older populations tend to have higher rates of religious adherence.

Several of the control variables have different effects than would be predicted by previous theories and research. Population turnover has no effect on evangelical adherence rates. An increase in the proportion of the county that is rural decreases the adherence rate among evangelical institutions. Rather than directly challenging prior theories, these results may be due to an analysis at the county rather than individual level.

Model 2 includes three additional economic variables; median family income, the percent of people who are in poverty, and the rate of employment. Again, under model 2 income inequality is positively correlated with Evangelical adherence. An increase of 0.1 in the GINI is matched by an increase of 10.535 Evangelicals per 100 people in the county. Thus, this association exists even while simultaneously controlling for a variety of economic factors, such as poverty, rate of employment, median income and service
Table 1

*Descriptive Statistics of U.S. Counties in 2000 using Listwise Deletion (n=3,088)*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logarithmic Transformation of Population</td>
<td>10.2</td>
<td>1.41</td>
<td>4.2</td>
<td>16.1</td>
</tr>
<tr>
<td>Median Age of Population by County</td>
<td>37.4</td>
<td>3.97</td>
<td>20</td>
<td>59</td>
</tr>
<tr>
<td>Percent of Population with at Least a Bachelors Degree</td>
<td>16.4%</td>
<td>7.67%</td>
<td>4.9%</td>
<td>63.7%</td>
</tr>
<tr>
<td>Percent of the Population Living in a Rural Portion of the County</td>
<td>60.5%</td>
<td>30.5%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Percent of the Population that Lived in a Different County 5 Years Ago (Population Turnover)</td>
<td>14.2%</td>
<td>6.54%</td>
<td>4.8%</td>
<td>71.1%</td>
</tr>
<tr>
<td>Percent of Employed Workers in the Service Sector</td>
<td>8.9%</td>
<td>1.58%</td>
<td>0.0%</td>
<td>18.0%</td>
</tr>
<tr>
<td>Herfindahl Index of Racial Homogeneity</td>
<td>0.781</td>
<td>0.173</td>
<td>0.28</td>
<td>0.99</td>
</tr>
<tr>
<td>GINI Coefficient of Income Inequality</td>
<td>0.404</td>
<td>0.0283</td>
<td>0.315</td>
<td>0.505</td>
</tr>
<tr>
<td>Median Family Income</td>
<td>$35,312</td>
<td>$8,842</td>
<td>$9,333</td>
<td>$82,929</td>
</tr>
<tr>
<td>Percent in Population Living in Poverty</td>
<td>14.2%</td>
<td>6.54%</td>
<td>0.0%</td>
<td>56.9%</td>
</tr>
<tr>
<td>Percent of Working Age Adults who are Employed</td>
<td>57.2%</td>
<td>7.51%</td>
<td>20.9%</td>
<td>83.7%</td>
</tr>
<tr>
<td>Rate of Evangelical Protestant Adherence per 100</td>
<td>22.7</td>
<td>16.9</td>
<td>0.0</td>
<td>111.3</td>
</tr>
<tr>
<td>Rate of Mainline Protestant Adherence per 100</td>
<td>14.2</td>
<td>11.3</td>
<td>0.0</td>
<td>88.4</td>
</tr>
<tr>
<td>Number of Counties in Each Region...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West</td>
<td>432</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midwest</td>
<td>1,050</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North</td>
<td>216</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South</td>
<td>1,390</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Data from 2000 U.S. Bureau of the Census and 2000 results from Religious Congregations and Membership in the United States 2000.*
Table 2
Comparison of Ecological Factors Influencing Rates of Evangelical Protestant Adherence within a County during 2000 using an OLS regression, parameter estimates reported and standardized betas in parentheses (n=3,088)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>37.01***</td>
<td>29.74**</td>
<td>-49.30*</td>
</tr>
<tr>
<td>Log of Population</td>
<td>-1.49 (-0.12)***</td>
<td>-1.24 (-0.10)***</td>
<td>7.10 (0.59)***</td>
</tr>
<tr>
<td>Region&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West</td>
<td>-20.94 (-0.43)***</td>
<td>-19.44 (-0.40)***</td>
<td>-19.30 (-0.40)***</td>
</tr>
<tr>
<td>Midwest</td>
<td>-15.22 (-0.43)***</td>
<td>-15.70 (-0.44)***</td>
<td>-15.65 (-0.44)***</td>
</tr>
<tr>
<td>North</td>
<td>-24.67 (-0.37)***</td>
<td>-22.99 (-0.35)***</td>
<td>-22.99 (-0.35)***</td>
</tr>
<tr>
<td>Median Age</td>
<td>0.15 (0.04)*</td>
<td>0.01 (0.00)</td>
<td>0.00 (0.00)</td>
</tr>
<tr>
<td>Percent of Population with at Least a Bachelors Degree</td>
<td>-0.32 (-0.15)***</td>
<td>-0.39 (-0.18)***</td>
<td>-0.36 (-0.16)***</td>
</tr>
<tr>
<td>Percent Rural</td>
<td>-0.04 (-0.08)***</td>
<td>-0.05 (-0.09)***</td>
<td>-0.05 (-0.08)***</td>
</tr>
<tr>
<td>Population Turnover</td>
<td>0.02 (0.01)</td>
<td>0.09 (0.04)*</td>
<td>0.08 (0.03)</td>
</tr>
<tr>
<td>Percent in Service Sector</td>
<td>-0.91 (-0.09)***</td>
<td>-1.48 (-0.14)***</td>
<td>-1.44 (-0.14)***</td>
</tr>
<tr>
<td>Racial Homogeneity</td>
<td>2.53 (0.03)</td>
<td>-5.36 (-0.05)**</td>
<td>-6.00 (-0.06)***</td>
</tr>
<tr>
<td>GINI Coefficient</td>
<td>46.20 (0.08)***</td>
<td>105.35 (0.18)***</td>
<td>307.13 (0.51)***</td>
</tr>
<tr>
<td>Median Family Income (Thousands of Dollars)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent in Poverty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Employed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GINI*Log of Population</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of cases</td>
<td>3,088</td>
<td>3,088</td>
<td>3,088</td>
</tr>
<tr>
<td>R&lt;sup&gt;2&lt;/sup&gt;</td>
<td>0.454</td>
<td>0.490</td>
<td>0.495</td>
</tr>
<tr>
<td>Adjusted R&lt;sup&gt;2&lt;/sup&gt;</td>
<td>0.452</td>
<td>0.487</td>
<td>0.493</td>
</tr>
</tbody>
</table>

<sup>a</sup>Reference region is the south

*P<0.05    **P<0.01    ***P<0.001

sector jobs. The addition of these variables cause racial homogeneity and population turnover to become significant, and age to lose its significance. None of the effects of the other independent variables changes signs or significance with the addition of these variables.

Of the new variables, higher median incomes and higher rates of poverty both are associated with lower rates of evangelical adherence. These effects persist if either of the variables is excluded from the model. Although it is not the focus of this study, these results imply that after controlling for numerous other qualities of a county, evangelical adherence is highest in communities with high average incomes as well as high rates of poverty. Finally, evangelical adherence increases by 0.44 per 100 for every percent increase in employment.

Table 4 shows the same set of variables in a model with mainline adherence as the dependent variable. In this model, income inequality has the opposite relationship with adherence as was present with Evangelical rates of adherence. Again, it is a strong predictor, but now higher equality leads to higher adherence. In model 4 for every, 0.1 increase in the GINI coefficient there is a decrease of 5.757 mainline adherents per 100 people who live in the county. All other things being equal, counties with more disparity of wealth tend to have higher rates of evangelical adherence and lower levels of mainline Protestant adherence, while in counties with less income inequality the opposite is true.

As with evangelical adherence, region is a strong predictor of mainline adherence. Not surprisingly, the Midwest is the region of the country with the highest rates of mainline adherence and the West is the region with the lowest, but the North and South are indistinguishable. As expected higher rates of population turnover are associated
Table 3

Comparison of Ecological Factors Influencing Rates of Mainline Protestant Adherence within a County during 2000 using an OLS regression, parameter estimates reported and standardized betas in parentheses (n=3,088)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>43.95***</td>
<td>70.30***</td>
<td>108.07***</td>
</tr>
<tr>
<td>Log of Population</td>
<td>-2.80 (-0.35)***</td>
<td>-2.50 (-0.31)***</td>
<td>-6.49 (-0.80)***</td>
</tr>
<tr>
<td>Regionª</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West</td>
<td>-6.66 (-0.20)***</td>
<td>-6.26 (-0.19)***</td>
<td>-6.33 (-0.19)***</td>
</tr>
<tr>
<td>Midwest</td>
<td>6.86 (0.29)***</td>
<td>6.31 (0.26)***</td>
<td>6.28 (0.26)***</td>
</tr>
<tr>
<td>North</td>
<td>-0.59 (-0.01)</td>
<td>-0.14 (0.00)</td>
<td>-0.14 (0.00)</td>
</tr>
<tr>
<td>Median Age</td>
<td>0.51 (0.18)***</td>
<td>0.37 (0.13)***</td>
<td>0.38 (0.13)***</td>
</tr>
<tr>
<td>Percent of Population with at least a Bachelors Degree</td>
<td>0.43 (0.29)***</td>
<td>0.54 (0.37)***</td>
<td>0.53 (0.36)***</td>
</tr>
<tr>
<td>Percent Rural</td>
<td>-0.01 (-0.04)</td>
<td>-0.01 (-0.04)</td>
<td>-0.01 (-0.04)</td>
</tr>
<tr>
<td>Population Turnover</td>
<td>-0.46 (-0.27)***</td>
<td>0.46 (-0.27)***</td>
<td>-0.46 (-0.26)***</td>
</tr>
<tr>
<td>Percent in Service Sector</td>
<td>0.48 (0.07)***</td>
<td>0.15 (0.02)</td>
<td>0.13 (0.02)</td>
</tr>
<tr>
<td>Racial Homogeneity</td>
<td>0.79 (0.01)</td>
<td>-3.92 (-0.06)**</td>
<td>-3.61 (-0.06)**</td>
</tr>
<tr>
<td>GINI Coefficient</td>
<td>-57.57 (-0.14)***</td>
<td>-65.93 (-0.16)***</td>
<td>-162.37 (-0.40)***</td>
</tr>
<tr>
<td>Median Family Income (Thousands of Dollars)</td>
<td>-</td>
<td>-0.47 (-0.37)***</td>
<td>-0.44 (-0.34)***</td>
</tr>
<tr>
<td>Percent in Poverty</td>
<td>-</td>
<td>-0.45 (-0.26)***</td>
<td>-0.42 (-0.24)***</td>
</tr>
<tr>
<td>Percent Employed</td>
<td>-</td>
<td>0.12 (0.08)**</td>
<td>0.12 (0.08)***</td>
</tr>
<tr>
<td>GINI*Log of Population</td>
<td>-</td>
<td>-</td>
<td>9.69 (0.53)*</td>
</tr>
<tr>
<td>Number of cases</td>
<td>3,088</td>
<td>3,088</td>
<td>3,088</td>
</tr>
<tr>
<td>R²</td>
<td>0.458</td>
<td>0.485</td>
<td>0.486</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.456</td>
<td>0.483</td>
<td>0.484</td>
</tr>
</tbody>
</table>

ªReference region is the south
*P ≤ 0.05  **P ≤ 0.01  ***P ≤ 0.001

with lower rates of adherence across mainline Protestant churches. Like evangelical adherence rates, mainline adherence is lower in counties with larger populations. In model 4, this is the strongest predictor as determined by the standardized beta.

Like the Evangelical model, median age is a significant predictor for Mainline adherence. Again, counties with older populations tend to have higher rates of adherence. However, education has a distinctly different effect for mainline Protestants as the one for Evangelicals. While higher rates of college graduates led to fewer Evangelical Protestants it is associated with higher rates of Mainliners at a rate of 0.43 per one percent increase in bachelor’s degrees.

When the additional economic variables are added in model 5 the GINI coefficient remains significant and the association becomes a bit stronger. In addition, several substantive changes take place among the other independent variables. Service sector jobs lose their statistical significance and racial homogeneity becomes significant and negative. The new economic variables have the same effects upon mainline adherence as they did for evangelical adherence.

The final hypothesis to test is whether an interaction effect exists between population and income inequality. These findings are shown in the complete regressions of model 3 and model 6 in each prior analysis. As hypothesized, disparity of income has the strongest effect on religious adherence in counties with smaller populations. Controlling for all the other ecological factors in this model, for evangelicals this means that adherence rates are the most impacted by income inequality in counties with small populations. Similarly, mainline Protestant adherence rates decrease the most because of an increase in inequality in small counties. This is exhibited by the changes in slope of
the correlation between the GINI coefficient and adherence rates at different population levels. For example, an increase of 0.1 in the GINI coefficient translates to an increase of about 4.32 more evangelicals per 100 population in a county with a large population (two standard deviations above the mean), but an increase of 15.75 in a county with a small population (two standard deviations below the mean). The same change of population results in a decrease of 3.62 mainline Protestants in a county with a large population, and a decrease of 9.09 in a county with a small population.

Figures 1 and 2 illustrate the interaction of population with income inequality for Evangelical and Mainline adherence respectively. Each of these figures is based upon the complete models and thus uses the mean values for all other ecological variables, with South as the control region, when determining the interaction of income inequality and population. The three lines represent predicted values of religious adherence (either mainline protestant or evangelical) based upon the mean population and populations which are two standard deviations above and below the mean.

In regards to concerns over multicollinearity, several diagnostic tests were run. For the simplified models, namely model 1 and model 4, no VIF scores is above 2.9 implying that multicollinearity is not a concern. As expected the inclusion of the additional economic variables of median family income, poverty rates and employment for models 2 and 5 substantially increase the level of multicollinearity. Specifically the VIF scores for the GINI coefficient, median family income and poverty are all above 4 at 4.6, 6.7 and 6.6 respectively. However, while this may raise concerns the significance and direction of association remained unchanged for the variable of interest, income
Figure 1. Interaction Effect of Population Size by the GINI Coefficient of Income Inequality on the Rate of Evangelical Adherence within a County

inequality. Therefore, it is reasonable to suggest that multicollinearity is not responsible for the apparent relationship.⁴

Each final model explains almost 50% of the total variance in adherence rates across counties in the United States among Evangelical and Mainline Protestants, at 49.3% and 48.4% respectively. This is especially impressive given that the models include no micro-level information about the individuals or the particular religious congregations. For example, the model does not control for the gender, age or race of the individual and similarly there are no controls for particular denominations or the size or

⁴Furthermore, several additional models were run that excluded the GINI coefficient to examine whether the signs and significance of the additional economic variables changed. Of the eight models in which one or none of the extra economic variables was also excluded seven had no substantive changes. For the evangelical adherence model with the GINI coefficient and median income excluded poverty became insignificant.
Figure 2. Interaction Effect of Population Size by the GINI Coefficient of Income Inequality on the Rate of Mainline Adherence within a County

ethnicity of the religious organizations. The inclusion of such variables in a multilevel model would likely increase the explanatory power, but clearly ecological factors, and economic ecological factors in particular are an important element in determining rates of religious adherence.

Discussion

Results from tables 2 and 3 reveal that ecological characteristics of a county influence religious adherence. This influence is exhibited both within particular types of religions and across religious families. Some qualities, such as rates of employment and poverty, have uniform effects across Mainline and Evangelical Protestant groups. This is not the case for many others though, as the rate of college degrees and the percent of
residents who work in the service sector each have significant but opposite effects on each religious family. However, each of these county characteristics represents aggregated data about individuals and may be an indirect means of measuring micro-level characteristics that lead individuals to select a particular form of Protestantism. In contrast, income inequality is a truly ecological measure and it too exhibits opposite relationships with Mainline and Evangelical Protestantism, inhibiting the former and benefiting the latter.

Furthermore, the role of income inequality is strongest in smaller communities, as measured by population size. This suggests that an awareness of the level of equality or inequality that surrounds them helps to determine the religious choice of individuals. People who live in communities with high rates of economic disparity, and experience the disparity, are more likely to belong to an Evangelical church. Meanwhile communities with high rates of equality tend to have higher rates of Mainline Protestant adherence.

In regards to causality, this paper is proposing that religious adherences results from economic circumstances. While the current analysis does not directly refute the possibility that higher concentrations of particular Protestant groups lead to either higher or lower levels of income equality, there is evidence to suggest that this is not the case. For example, contrary to common perceptions, all Protestants donate comparable amounts of money to the poor (Regnerus, Smith and Sikkink, 1998). Even so, further research into this causal relationship would be beneficial in explaining religious adherence and income inequality independent of each other.
CHAPTER FOUR

Conclusion

The analyses in this study have consistently suggested that in the United States, income inequality at the county-level is related to Protestant adherence rates. For evangelical Protestants this is a positive relationship, while for mainline Protestants the relationship is negative. This association remains when controlling for numerous ecological factors including other economic characteristics of the community. Furthermore, the effect of income inequality is strongest in the smallest communities where potential adherents are the most aware of the local level of income disparity.

The association of income inequality and religion is especially significant for the United States. The United States has one of the highest levels of income inequality among economically advanced nations, while simultaneously being one of the most religious countries. Even more striking is that while most religions posses messages of charity and compassion, few Americans are interested in removing income disparities, at least at the societal level (Glazer, 2005).

This study was intended as a preliminary examination of the role that economic surroundings have on influencing religious decisions and could be extended in numerous ways. For methodological reasons and to keep the analyses clear, the current study only looked at two particular forms of Christianity. Theoretically, all religions may have a relationship with the presence or lack of economic deprivation. Further studies to discover such relationships would certainly help in explaining the success and failure of each religious tradition in regards to its economic surroundings. Any such work would
need a clear understanding of the pertinent religious doctrine in order to recognize how
the message should be experienced within a practitioner’s everyday life.

Further research would also be useful in examining whether alternative forms of
societal differentiation influence the success and failure of particular religious messages.
For example, preliminary analysis suggests that Evangelical Protestant adherence rates
are higher in areas with more racially heterogeneous populations. Again, this could be
taken as experienced evidence that all people are not identical. This requires no sense of
inferiority per se, but rather a general worldview of inequality.

The current findings would likely be assisted by shifting the focus from income
inequality to wealth inequality. In the United States, levels of wealth inequality are even
higher than income inequality (Winnick, 1989, p. 209). Wealth (or lack thereof) is also
the quality that people demonstrate in their everyday lives through clothing, cars and
houses. Thus, it seems reasonable to expect that the association between religious
adherence and wealth inequality may actually be stronger. At the very least, it would
represent a more accurate test of the proposed mechanism of experienced differentiation.

The most important contribution of this study is in shifting the focus away from
the characteristics of individuals to truly societal level qualities. Even in the current
study, the majority of control variables may be aggregate measures rather than truly
societal characteristics. For example, the significance of poverty rates may be the direct
effect of individuals in poverty selecting a particular religion, rather than the
community’s awareness of such conditions. However, income inequality is a societal
characteristic. Only by focusing on macro-level aspects of a community or society can
sociology be disentangled from the aggregated effects of psychology. This is by no
means a new concept, the same sentiment being stated a quarter of a century ago by
Welch, “Sociologists of religion should discard their concern with purely individual-level
explanatory schemes because these schemes, ultimately, are of limited utility.” (1981, p.
91). Even though it is not a new idea it is one that bears repeating.
BIBLIOGRAPHY


